

**AWARENESS AND USAGE OF OPEN EDUCATIONAL RESOURCES  
AMONG LIBRARY AND INFORMATION SCIENCE UNDERGRADUATE  
STUDENTS OF UNIVERSITY OF BENIN.**

**BY**

**CHIBIKO VICTORY ONYEDIKACHI**

**EDU2005692**

**DEPARTMENT OF EDUCATIONAL MANAGEMENT  
FACULTY OF EDUCATION  
UNIVERSITY OF BENIN  
BENIN CITY**

**NOVEMBER, 2024**

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**A PROJECT RESEARCH SUBMITTED TO THE DEPARTMENT OF  
EDUCATIONAL MANAGEMENT, FACULTY OF EDUCATION,  
UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILMENT FOR  
THE REQUIREMENTS OF THE AWARD OF B.(LIS) DEGREE IN LIBRARY  
AND INFORMATION SCIENCE**

**NOVEMBER, 2024**

**CERTIFICATION**

We, the undersigned certify that this research work was carried out by **Victory Onyedikachi CHIBIKO** with Matriculation number **EDU2005692** and that the research work is adequate in scope and quality in the Department of Educational Management, University of Benin in partial fulfillment of the award of Bachelors Degree in Library and Information Sciences (BLIS).

.....  
**Mrs U.B Ovir**  
Project Supervisor

.....  
**Date**

.....  
**Dr. Nkechi Obiweluozor**  
Project Coordinator

.....  
**Date**

.....  
**Dr. A. W. Iguodala**  
Head of Department

.....  
**Date**

### **DEDICATION**

This project is dedicated to God Almighty for His infinite providence.

## **ACKNOWLEDGEMENT**

The researcher's gratitude firstly goes to the Almighty God for his grace, mercy and compassion towards him, enabling this work to become a success.

He will also like to specially thank his supervisor Mrs. U.B Oviri who with care and patience provided assistance to make sure this research was carried out smoothly. He cannot express enough how grateful he is to you for your impact in this research.

He also appreciates his lecturers in Library and Information Science (LIS) Prof. L.O Obasuyi, Dr. Mrs Idiodi, Dr. A.C. Eneh, Mrs U.B Oviri, Dr (Mrs) M. G Ekhonorotomwen, Dr (Mrs) N.B Ossai Ugbah, Barr. Meggison, Mr I.M Aliu, Dr C.O Ukpebor, Mrs J.O Oragbon, Miss Ogbonor, Mr Osagie and Dr Godson, Mr. Osegale, Dr. Tega and Dr. Omorodion for their academic advice and knowledge which was impactful on him during his four years course in University of Benin which he has hopes to refer back to in his future career.

His immense gratitude goes to his Parents Mr Arukwe Ithem Yankee and Mrs Chibiko

Augusta Chigereokwu for their spiritual, emotional and financial support in his four years study course. Also, to his siblings Chibiko Maryqueen Mmesoma and Chibiko Alexander Chinagorom, for their concern, suggestions, love and support.

Finally, he will not forget to earnestly thank his friends Precious Idehen, Enofe Samuel, Adejuwon Taiwo Elija, James Isaac Norsey, Stephanie Okoruwa and all his course mates. He say thank you for your support and kindness. To well-wishers Aigbe Glory and Arimoro Stanley and everyone who contributed to make this programme successful, he would love to let you know that he is very much appreciative of you all.

## **TABLE OF CONTENTS**

	<b>PAGES</b>
TITLE PAGE	I
CERTIFICATION	III
DEDICATION	IV
ACKNOWLEDGEMENT	V
TABLE	CONTENTS
VIII	
ABSTRACT	
IX	

## **CHAPTER ONE: INTRODUCTION**

Background to the Study	7
Statement of the Problem	8
Purpose of the Study	8
Research Questions	9
Significance of the Study	11
Scope of the Study	11
Definition of Terms	12

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

Conceptual Framework	13
Concept of Educational Resources	16
Level of Awareness of Open Educational Resources among LIS Undergraduate	Students
23	
Level of Usage of Open Educational Resources among LIS Undergraduate	Students
28	
Challenges of the Usage of Open Educational Resources by LIS Undergraduate	Students
34	
Review of Related Literature	35
Summary of Literature Review	36

## **CHAPTER THREE: METHODOLOGY**

Research Design	37
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Population of the Study	
38	
Sample and Sampling Technique	38
Research Instrument	38
Validation of Research Instrument	39
Reliability of the Instrument	39
Method of Data Collection	39
Method of Data Analysis	40

#### **CHAPTER FOUR: DATA ANALYSIS**

##### **PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS**

Presentation of Result	45
Discussion of the Findings	48

##### **CHAPTER FIVE: SUMMARY, FINDINGS, LIMITATIONS OF THE STUDY, SUGGESTIONS FOR FURTHER RESEARCH, CONCLUSION AND RECOMMENDATIONS**

Summary	50
Conclusion	50
Recommendations	
51	
Contribution to Knowledge	
51	
Limitations of the Study	
51	

Suggestions for Further Studies

51

**REFERENCES**

b 56

**APPENDICES**

58

## **ABSTRACT**

The study investigated the awareness and usage of open educational resources among Library and Information Science undergraduates in the department of educational management, University of Benin, Edo State, Nigeria. The specific objectives of the research were to find out the level of awareness of LIS undergraduates towards OERs, sources of awareness, types of OERs used by LIS undergraduates, level of usage of OERs among the undergraduates and the problems militating against their usage. In carrying out this study, five research questions were raised. Descriptive survey design was utilized for the study. The population for the study is 289 undergraduates. The total enumeration and accidental sampling techniques were used for this study. The instruments used for this study were a questionnaire with the title “Awareness and Usage of Open Access Resources Questionnaire (AUOARQ)” The data obtained were analysed, using frequency and percentages. Findings from the study revealed that the LIS undergraduates had high level of awareness of open educational resources, they became aware of OER through self-exploration on the internet, open e-book and open access journals were utilized by the undergraduates. They had high level of usage of open educational resources. Unstable power supply, inadequate ICT facilities, poor Internet connectivity, lack of retrieval skills, lack of internet search skills and download delay were some of the barriers associated with the use of OERs. Undergraduates’ attendance at such orientation, workshop and seminar should be made mandatory.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background of the Study**

The emergence of the Internet and other technological innovations as the core tools for information retrieval, social networking and knowledge transfer has radically changed higher education. The internet has become the most common communication and research tool for most people worldwide (Almobarraz, 2017). Library and information science undergraduates use the Internet increasingly as their main tool for research. Technological innovations have moved education from being closed behind the four walls of the classrooms to openness and it has made learners not only consumers but creators too (Wiley, 2016). Thus, openness has become a fundamental value, underlying significant changes in society and is a prerequisite to change institutions of higher education needs in order for them to remain relevant to the society in which they exist (Wiley & Hilton, 2019). Many institutions have become open by developing programmes of open sharing of educational materials and ideas. Institutions of higher learning are addressing openness as an organizational value for they desire to remain relevant to their learners and to contribute to the positive advancement in the field of education.

There is an ongoing movement towards more openness in education which encourages universities to open up their gates and permit access to those that could not attend higher education for various reasons (Iiyoshi, 2018) and this has lead to the

development of open educational resources (OER). The purpose of open educational resources is to remove unnecessary barriers to access knowledge and equalize access to education by making high quality educational materials and opportunities more broadly available (Hewlett Foundation, 2016). With open educational resources education can become accessible to everyone who wants to learn, while teachers have the opportunity to enrich their teaching practice.

Open educational resources are educational materials that are freely made available on the internet for teaching, learning and research or educational purposes. Organization for Economic Cooperation and Development (2017) defined open educational resources as digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning and research. Open education resources are teaching, learning, and research resources that reside in the public domain or creative common area and are freely available to anyone over the Web (Okonkwo, 2022). It means that anyone can legally and freely copy, use, adapt and re-share them. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge. (Hewlett Foundation, 2016). Creative Commons License is the most common license used but options vary in different countries. Open educational resources have the potential to make education more accessible, enable the creation of relevant teaching materials, improve the quality of content, and empower learners to be critical thinkers and knowledge creators. Open educational resources can be utilized to improve the quality of higher

education and give more people in developing countries the opportunity to receive a higher education while keeping the total cost for education down (Caswell et al., 2018) and (Sikwibele&Mungoo, 2019). Open educational resources can provide access to education for those in remote areas, for the society disadvantaged, and for the marginalised. If carefully implemented, open educational resources can play an important role in achieving the Sustainable Development Goals (SDGs) and enabling lifelong learning.

In recent years, Open Educational Resources (OER) have gained significant reach globally as a means of facilitating free and open access to educational materials, mainly due to increasing possibilities of digitization, greater access to the Internet and new flexible intellectual property licenses. Open Educational Resources are teaching, learning and research content that is ‘libre’ (openly-licensed content) and at the same time ‘gratis’ (free of charge). Open educational resources need to carry a visible open license, such as a Creative Commons one, or an explicit acknowledgment that the educational resource is free of charge and free to be used, shared, remixed, adapted, and distributed by others with no or limited restrictions, depending on the type of open license chosen. Content in the public domain is also considered open educational resources. Open educational resources can have different granularity, varying from a learning object (e.g., a picture with a specific teaching purpose) to a full course (e.g., a MOOC or an open-libre and gratis-online course) The basic types of Open educational resources include open courseware, learning modules, open textbooks, streaming video, open-access journals, online tutorials and digital learning objects. All

open educational resources types integrate a variety of format types, such as text, video, audio, images, and graphics. The main ways to find open educational resources are by using regular search engines (such as Google) with proper keywords; through dedicated open educational resources search engines, or open educational resources and Open Textbook Repositories such as MERLOT, Project Gutenberg, Europeana etc. Open educational resources include full course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials or techniques used to support access to knowledge (Narendra & Sudhakar, 2020).

Awareness is a great factor that influences the utilization of resources. Without the idea on existence of the open educational resources, many students might not be able to trace them and even use them for the academic work. Increased broadband availability and low cost of internet connectivity is very important especially accessibility of materials in an affordable manner. The aspect of preparedness comes in after the students become aware of the existence of open educational resources. The awareness of open educational resources has witness incremental growth especially in developed nations, where many universities and national institutions have established open educational resources portals for providing wider access to educational resources to students (Sanjeeva & Powdwal, 2017). The awareness and utilizing of open educational resources (OER) has become an important method of providing access to, and enhancing, the teaching and learning experience for both lecturers and students (Zaid & Alabi, 2020). Using and creating open educational resources encourages collaboration, so students are able to share knowledge and benefit from the ideas of

others. Effective use of open educational resources has the potential to improve the quality and reduce the costs of educational materials. As such, an open educational resource is a possible substitute to costly commercial textbooks, offering a means of more affordable learning. This is one potential solution to the problem of dearth of quality materials and general underfunding of education in Africa. Open educational resources makes students learning interesting, gets them more engaged and directly improve the quality of their learning experience (Itasanmi, 2020). Generally, open educational resources enable students to learn at their own pace, convenience, helps them prepare for classes, and mainly serves as supplementary materials to their course modules.

But despite the increasing popularity, benefits and the potentials of open educational resources to contribute in the educational advancement of developing countries, it has been observed that there is a low level of awareness about open education resources by undergraduate students which are a major obstacle in the use of open educational resources in Nigerian Universities (Zaid & Alabi, 2020). One major reason that can be attributed to the low awareness which lead to inadequate usage of open educational resources among students is that lectures and librarians have not adequately promoted the use of open educational resources to the students as well as well as the attitude of the students. Creating the awareness about open education resources and the usage of open educational resources may prove to be a solution for addressing major challenges of tertiary education like; high cost textbooks, quality of teachers, huge teacher's deficit etc. especially in developing

countries.

The attitude to information is gradually shifting from the printed documents to electronic resources and thus, it has been the prerogative to know the details of the availabilities and organization of e-resources like online journals and databases, electronic theses and dissertations (ETDs), government publications, online newspapers and so on. Attitude could be positive or negative. Attitude towards a particular phenomenon can enhance or mar human approach to such phenomenon (Swain & Panda, 2019). Students' attitudinal change toward the internet and its educational packages are enough stimuli for the usage of open education resources. Undergraduates' attitude towards any open educational resources depends on their level of digital literacy as lack of or inadequate open educational resources skills would limit their participation in the use of such innovation (McGrill, 2013). Some undergraduates found it difficult with courses that require the use of technology or having to use technology to make research (Ardies, DeMaeyer, & Gijbels, 2023).

Area of specialization is another unit that may determine the attitude of undergraduates towards use of open educational resources. Undergraduates' area of specialization has a lot to do with their adoption of e-resources for learning. For example: undergraduates who are studying courses that make use of ICTs more may be more used to using open educational resources than those who rarely uses ICT for their activities. Tunkun, Nordin, and Bello, (2023) revealed that area of specialization has a significant influence on both perceived and objective knowledge in favor of ICT related courses than others. This means students who are engaged in courses like

computer studies, computer engineering, educational technology and many more are more likely to have a better perception and knowledge on the use of ICT resources as they make use of these resources more than others who are engaged in courses that make use of ICT less compared to the previous mentioned students.

The use of open educational resources is not confined to eLearning contexts or distance education alone. Open educational resources can be used online or in traditional classrooms (Commonwealth of Learning, 2023). There is no single paradigm associated with open educational resources, nor are there any preconceived approaches to learning that limit the generalizability of open educational resources (Commonwealth of Learning, 2023). On the other hand, individual Open educational resources can be specifically designed to support a focused learning theory. In addition, an open educational resource (OER) is important learning materials with the potential to facilitate the expansion of learning worldwide. The flexibility, technological and legal, afforded by openly licensed content as well as the awareness and the attitude of undergraduate students towards the usage of open educational resources are important precondition for supporting effective utilization of open educational resources undergraduates.

### **Statement of the Problem**

Open educational resources have the potential to improve the quality and reduce the costs of educational materials especially in developing countries like Nigeria where access to high quality teaching resources is scarce. However, despite the possible potentials of open educational resources to create free, high quality

educational resources for anyone and everyone to use, there is a low level of awareness which has led to low level of utilization by university students in developing countries such as Nigeria. Akomolafe and Adegun (2014) stated that the use of open educational resources among students in Nigeria universities is low. This may be as a result of the low level of awareness and students' attitudes towards the usage of open educational resources among the students. Other possible reasons for the low usage could be inadequate information retrieval skills, lack of internet access, erratic power supply etc. To this end, this study seeks to investigate the awareness and usage of open educational resources among library and information science undergraduates in the department of educational management, university of Benin, Benin city Nigeria

#### **PURPOSE OF THE STUDY**

The purpose of this study is to investigate the awareness and usage of open educational resources among LIS undergraduates in the department of educational management, university of Benin, Benin City Nigeria. The specific objectives are to:  
determine the level of awareness of open educational resources among LIS undergraduates in the department of educational management, university of Benin.

know the sources of awareness by the LIS undergraduates.

Identify the various open educational resources used by the LIS undergraduates

find out the level of usage of open educational resources among LIS undergraduates,

identify the problems militating against the usage of open educational resources by library and information science undergraduates.

## **Research Question**

The following research questions guided this study:

What is the level of awareness of open educational resources among LIS undergraduates in the department of educational management, university of Benin?

What are the sources of awareness of open educational resources by the LIS undergraduates?

What are the various open educational resources used by the LIS undergraduates?

What is the level of usage of open educational resources among LIS undergraduates?

What are the problems militating against the usage of open educational resources by library and information science undergraduates?

## **SIGNIFICANCE OF THE STUDY**

This study will be of benefit to the following categories of people: university policy makers, undergraduates, library managers, researchers and scholars. Findings of the study will enable university authorities to review, design and implement policies to improve undergraduates' academic performance and the quality of education by changing the mind set of undergraduates towards learning and improving teaching procedures.

The study will enable library managers in general and those in the University of Benin, specifically, to put together informed decisions on improving their library collection and services to achieve a standard quality and positively trigger academic performance. Also, the findings will unravel some of the lapses in efficient service

delivery thereby, creating an optimistic change in the perception of librarians towards the provision of open educational resources.

It will also enable university librarians to plan and design policies towards the provision of new electronic information services to undergraduates, researchers and the entire university community and it will enable them make knowledgeable decisions on how to incorporate the use of open educational resources in rendering and promoting library resources and services in order to improve academic performance of undergraduates.

The study will help bring to the notice of the academic institutions the benefits of open educational resources by library and information science undergraduates for academic's productivity in this era of information communication technology. The study will encourage the researchers to change from the traditional manual operations to an integrated collection by repackaging their research information through the availability of open educational resources. The study will also educate the library staff that through open educational resources, Librarians and researchers can have easy and quick access to their vendor through the internet, and it will also help them reduce the chances of error when rendering services to users, increased productivity, reduce duplication of work, improve customer service, and how to offer quality service to library users by providing the information resources the users' needs easily even from outside the library environment.

The study will bring to light the benefits of open educational resources to the students in the universities in Nigeria, by giving insight on how users can easily access open educational resources from any destination, and saving the time of the users.

### **Scope and Delimitation of the Study**

It is restricted to determining the awareness of open educational resources, sources of awareness of open educational resources, types of open educational resources utilized by the undergraduates, level of usage of open educational resources and the problems militating against their usage.

This study covered 200, 300 and 400 level undergraduates in regular programmes in the Departments of Library and Information Science in the department of education management, University of Benin, Benin City, Edo State.

Regular undergraduates in 200, 300 and 400 levels in the Departments of LIS were chosen based on the fact that they are those who are actively involved in research. 100 levels were excluded from this study because as at the time of carrying out this study they just gained admission into the university.

This study centers on the Awareness and usage of open educational resources among library and information science undergraduates. The study will cover 200, 300, 400 levels LIS undergraduate in the Department of Educational Management, University of Benin, Benin City, Nigeria.

### **Definition of Terms**

The following terms were defined in the context as they were used in the study.

**Awareness:** This is the ability of library and information science undergraduates students to be informed and be conscious of the existence of open educational resources.

**Attitude:** This means the approach, perception and reaction of library and information science undergraduate's students towards the awareness and usage of open educational resources.

**Usage:** The term usage refers to the utilization and application of open educational resources by library and information science undergraduates.

**Open educational resources:** These are digitized materials offered freely and openly for learning, information, research and educational purposes in the university.

**Undergraduates:** This refers to individuals going through learning process in a higher institution, who have not yet obtained a degree.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURES**

The aim of this chapter is to present already existing views of people in related to this study. The review of related literature is presented under the following sub-heading.

#### **Conceptual Framework:**

- Concept of educational resources
- Level of awareness of open educational resources among library and information science undergraduates
- Level of usage of open educational resources among library and information science undergraduates
- Challenges militating against the usage of open educational resources by library and information science undergraduates

#### **Review of related literature**

#### **Summary of Literature Review**

## **Concept of educational resources**

Open educational resources are educational materials that are freely made available on the internet for teaching, learning and research or educational purposes. An Open educational resources may be defined as any resource such as “curriculum maps, course materials, textbooks, streaming videos, multimedia applications, podcasts, and any other materials that have been designed for use in teaching and learning that are openly available for use by educators and students, without an accompanying need to pay royalties or licence fees” (Butcher, 2021). OECD (2017) defined Open educational resources as digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research. The term open educational resources (OER) was first used by UNESCO in 2022 at its Forum on the Impact of Open Courseware for Higher Education in Developing countries, and has since then gained significant prominence in recent years throughout the world (Brown & Adler, 2018).

Open educational resources are educational materials that are freely made available on the internet for teaching, learning and research or educational purposes. Organization for Economic Cooperation and Development (2017) defined open educational resources as digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning and research. Open education resources are teaching, learning, and research resources that reside in the public domain or creative common area and are freely available to anyone over the Web (Okonkwo, 2022). It means that anyone can legally and freely copy, use, adapt and re-share them.

The Open educational resources initiative originated in the late 1990s with the first major movement coming from the Massachusetts Institute of Technology which released 50 freely available courses through its Open CourseWare initiative in 2002 (Goldberg & Lamagna, 2022). Since then there are currently over 300 universities throughout the world that engaged in developing open educational resources with more than 3,000 open access courses (OECD, 2027)

Open educational resources reflects those resources that attract no fees, subscriptions, tuitions, registrations, obligations, and so on, to the consumer or user of the said resources. open educational resources is not the same as open courseware but a mix of three components: content, tools, and capacity; all of which are aimed at ensuring resource usability, durability, accessibility, and effectiveness. Thus, open educational resources should be measured against the four quality factors of usability, accessibility, durability, and effectiveness (Stephen, 2019). Open educational resources contents can be retained, reused, revised, remixed and repurposed without restrictions which signifies the 5Rs of OER. (Grodecka & Sliwowski, 2014).

Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge. (Hewlett Foundation, 2016). Creative Commons License is the most common license used but options vary in different countries. Open educational resources has the potential to make education more accessible, enable the creation of relevant teaching materials, improve the quality of content, and empower learners to be critical thinkers and knowledge creators. Open

educational resources can be utilized to improve the quality of higher education and give more people in developing countries the opportunity to receive a higher education while keeping the total cost for education down (Caswell 2018) and (Sikwibele & Mungoo, 2019). Open educational resources can provide access to education for those in remote areas, for the society disadvantaged, and for the marginalized. If carefully implemented, Open educational resources can play an important role in achieving the Sustainable Development Goals(SDGs) and enabling lifelong learning.

### **Level of Awareness of Open Educational Resources among Library and Information Science Undergraduates**

Awareness is a great factor that influences the utilization of resources. Without the idea on existence of the open educational resources, many students might not be able to trace open educational resources and even use open educational resources for the academic work. Increased broadband availability and low cost of internet connectivity is very important especially accessibility of materials in an affordable manner. The aspect of preparedness comes in after the students become aware of the existence of open educational resources. The user is expected to be trained on different skills about accessibility, choice of good quality open educational resources and different sites to find open educational resources. Students' readiness also touches on the availability of the computers, skills acquisition, availability of broadband and resources (Mays, 2014). Scholars in Africa and other developing regions should no longer mourn the unavailability to educational resources from the developed world. This is because, on a daily basis, both older and newer in-lab and out-of-lab

information materials—books, serials, gray materials and others— are uploaded onto the Internet, and downloaded by other students and researchers (Nwagwu, 2013).

In highlighting the level of awareness of open access resources (Ogbomo&Ivwichreghweta, 2020) reported that several studies indicated that open access is an unknown concept to many researchers and students. These studies include those conducted by Nwagwu, (2023) and Swan & Brown, (2014) who found very low level of awareness prevailing in higher educational institutions and research institutes, organizations and governments agencies. According to Dinev, Hu, and Goo (2015), awareness is a pre-requisite to subsequent usage of open access publications unless an individual uses it unknowingly. According to Obuh and Bozimo (2022) “Awareness raises consciousness and knowledge about a certain technology and its personal and social benefits.Obuh and Bozimo (2022) view was supported by the study conducted by (Dinev 2015), which established awareness as the central determinant of user attitude and behavior towards technology. In the open access environment, awareness has also been acknowledged as an important factor in determining usage of this mode of scholarly communication.

Olufunke and Adegun (2014) studied utilization of open educational resources among undergraduates in Universities in Nigeria. The findings of the study were that the undergraduates were moderately aware of the existence of open educational resources. In another related study conducted in Nigeria by Christian (2019) the findings reveals that while only 3% of 66 respondents at the University of Lagos were

aware of the concept of open educational resources, 22.7% knew very little about it and majority (74%) of the respondents were completely unaware of open educational resources. A similar study conducted among library and information science students in southern Nigeria indicated 67% of academic librarians in private higher learning institutions were not aware of Open Access concept and only 33% of the library and information science students were aware of this concept (Ikponmwosa, Schorlastica, & Ngozi, 2023). In addition, similar study conducted by Obuh and Bozimo (2022), showed that most of the respondents, who were library and information science students in southern Nigerian indicated some level of familiarity with of open access publications. Even though the result shows fairly high level of awareness on open access publications by library and information science students in southern Nigeria.

According to Panda and Chen (2023) in a study titled needs for and utilization of open educational resources in distance education in China it was established that even the lecturers did not have a clear understanding of open educational resources and the other materials available online. Panda and Chen (2023) study brought out the misunderstanding that is there among faculty and that they mistake all the resources available for use online. This study reveals that even the lecturers who are the facilitators face awareness problem what about the learners who depend on the guidance from lecturers. Cagiltay, KoybasiandIslim (2016) in their study done in Turkey titled 'Use of open educational resources: How, Why and why not?' The Cagiltay, KoybasiandIslim (2016) found out that over 76% were aware of open

educational resources and they said that they learn of open educational resources from the teaching assistants, instructors, flyers, peers and media. Another 23% of the participants were aware of the resources through searching online and surfing the open Courseware (OCW) portal. A study by Paulo, Luisa, and Carlos (2023) in higher institutions in Portugal and found almost inexistent knowledge of open educational resources concept and of their uses. This meant that the 315 students who were sampled majority had no clue of what are open educational resources. The Paulo, Luisa, and Carlos (2014) established that open educational resources were completely unknown to more than 60 % of the students. For those who have some information on the open educational resources less than 10 % of them are important to them. Paulo, Luisa, and Carlos (2014) concluded that a lot needed to be done so as to make open educational resources part of the resources used by students for learning purposely. It was further established that as much as majority of the students indicated they did not know open educational resources they had indicated to a previous question on the features they value about digital resources a sign that they made use of them without knowing. The researchers wanted to establish the level knowledge had on open educational resources platforms. The results indicated that very few respondents out of the 315 knew about specific repositories asked about. Therefore, based on the findings it was concluded that open educational resources issue was still unfamiliar within the teaching and learning context of higher education students as much as they simultaneously valued the features of such resources.

Li, Yuen and Wong (2015) in a study on readiness for open educational

resources in Hong Kong established that the tertiary students showed a limited degree of awareness towards open educational resources. 29.6 % indicated they had no idea about OERs, 33.3% knew of it, 33.3 % knew how to use them. Li, Yuen and Wong (2015) further found out that the awareness degree was limited due to the few open educational resources respondents used. Wikipedia, wikibook, you tube EDU, MOOC and courseware were the only sources where the learners accessed open educational resources from. The respondents had virtually no knowledge of open licences. The study revealed that most of the tertiary students had high computer literacy on using online tools and resources, however, their familiarity and experience in open educational resources was rather limited. In related studies Olufunke and. In a study done in UK on student views on learning methods and use of OERs, it was established that 65% of traditional and 66% of non-traditional students indicated either they were slightly aware or strongly aware of OERs as part of their course. Around one-fifth of traditional students (21%) and one-quarter of non-traditional students (25%) said they were strongly aware of OERs. This was an indication that traditional and non-traditional students were aware of the existence of OERs (NUS, 2014). In a study done in India titled open educational resources in India: a study of attitudes and perceptions of distance teachers in selected Indian distance education institutions. One of the objectives in this study was to establish the extent of awareness regarding open educational resources. It was established that awareness was considerably high (Venkaiah&Ambedkar 2020). This was done among the distance learners in higher educational institutions and therefore it can be argued that the selected respondents

already are prepared to make use of such resources.

One of Other studies done in Sub Saharan Africa targeting non Teacher Education in Sub-Saharan Africa (TESSA) participants, established that there was general lack of awareness. Two academic non TESSA members stated that they have never heard of open educational resources before as much as they were participating in other open access activities. This was an indication that even the academics lacked awareness and yet they are expected to make use of them and even recommend some for their students. The researchers further interviewed seven librarians from nine non-TESSA group, they also knew very little about open educational resources (Ngimwa& Wilson 2022).

The attitude to information is gradually shifting from the printed documents to electronic resources and thus, it has been the prerogative to know the details of the availabilities and organization of e-resources like online journals and databases, electronic theses and dissertations (ETDs), government publications, online newspapers and so on. Attitude could be positive or negative. Attitude towards a particular phenomenon can enhance or mar human approach to such phenomenon (Swain & Panda, 2019). Students' attitudinal change toward the internet and its educational packages are enough stimuli for a research of this kind. One of these educational hotcakes provided by internet is open educational resources. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials or techniques used to support access to knowledge (Narendra&Sudhakar, 2010). Undergraduates' attitude

towards any e-based resources all depends on their level of digital literacy as lack of or inadequate computer skills would limit their participation in the use of such innovation (Issa,Ibrahim, Onojah, &Onojah (McGrill, 2023). Some undergraduates found it difficult with courses that require the use of technology or having to use technology to make research (Ardies, DeMaeyer, &Gijbels, 2023)

Undergraduates' area of specialization has a lot to do with their adoption of e-resources for learning. For example: undergraduates who are studying courses that make use of ICTs more may be more used to using e-resources than those who rarely uses ICT for their activities. Tunkun, Nordin, and Bello, (2023) revealed that area of specialization has a significant influence on both perceived and objective knowledge in favor of ICT related courses than others. This means students who are engaged in courses like computer studies, computer engineering, educational technology and many more are more likely to have a better perception and knowledge on the use of ICT resources as they make use of these resources more than others who are engaged in courses that make use of ICT less compared to the previous mentioned students.

Ahmed, Mukhtar, Amos and Adenike (2020) investigated a study on undergraduates' attitude towards the use of open educational resources for learning in Nigeria. Undergraduates' attitude towards the utilization of open educational resources for learning was investigated. This seeks to check whether undergraduates in Nigeria have a positive or negative attitude towards use of open educational resources for learning. From the data analyzed, it was revealed that undergraduates have a positive attitude towards the utilization of open educational resources. This

conforms with Swain and Panda (2019) who opined that the benefits of e-resources have helped improve the attitude of users as it gives its user varied option that best suit each user. Ljubojevic, Vaskovic, Stankovic, and Vaskovic, (2014) also pined that students are motivated to learn when they enroll in courses that make use of technology. This simply means that undergraduates would welcome the use of open educational resources due to its numerous benefits. Koenig (2020) established that students who took multiple community college courses that used only free or low-cost open educational resources materials earned more credits over time than their peers who took classes that used traditional course materials such as textbooks, according to a new study. Onaifo (2016) also reveal that although participants frequently used open educational resources, their overall knowledge of the resources was limited and participants had a positive attitude toward open educational resources, and benefited from using the resources in multiple ways.

### **Level of Usage of Open Educational Resources among Library and Information Science Undergraduates**

Utilization of open educational resources 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 open educational resources are widely available.

Several studies have been carried out to usage of open educational resources among library and information science undergraduate's students. Students' use of open educational resources has been minimal. This is in line with Akomolafe and Olajire, (2014) where it was observed that despite all the uprising in the understanding of open educational resources among developed nations, its use among developing nation such as Nigeria have recorded low utilization among students. Akomolafe and Olajire (2014) also noted that there is a moderate use of open educational resources among library and information science undergraduates as a large number of students make use of the internet to access learning resources in various forms such as video, audio and texts to support learning activities. However, there is seems to be a low percent of level of usage of open educational resources as revealed in Komineas & Tassopoulou, (2016). Similarly, Nwana, Egbe, and Ugwuda, (2017) revealed that even though there seems to be high awareness of educational resources among library and information science undergraduates, there is a very low utilization of these resources for learning. They further that it may have occurred due to students' attitude toward e-reosurces. Akomolafe and Olajire (2014) noted that there is a moderate use of open educational resources among library and information science undergraduates as a large number of students make use of the internet to access learning resources in various forms such as video, audio and texts to support learning activities. However, there is seems to be a low percent of level of usage of open educational resources as

revealed in Komineas&Tassopoulou, (2016).

Similarly, Nwana, Egbe, and Ugwuda, (2017) revealed that even though there seems to be high awareness of educational resources among library and information science undergraduates, there is a very low utilization of these resources for learning. They further note that it may have occurred due to students' attitude toward e-resources.

Arunkumar and Kannan (2020) investigated awareness and use of open education resources (OER) among library and information science PG students: A study of Alagappa University. The study found that open education resources usage was on the average. Hu et al., (2015) examined open educational resources (OER) usage and barriers: A study from Zhejiang University, China. The results show that a significant number of university students have experienced with open educational resources, but there are challenges involved with student, content, interface, and environment related factors that impacted rapid diffusion of open educational resources. Shams (2020) carried out a study on open educational resources open educational resources usage trends among university students of Pakistan. The study found that the students had high proficiency in using open educational resources and is aware of different types of open educational resources. Nyamwembe (2018) studied the relationship between students' awareness and utilization of open educational resources for academic work in Private Universities in Kenya. The researcher concluded that majority of the students were moderately aware of the open educational resources but the usage is still very low.

Issa (2020) conducted a study on utilization of open educational resources for learning in universities in Kwara State. The study concluded that the utilization of open educational resources for learning by undergraduates was on the average. Itasanmi, (2020) investigated open educational resources awareness and usage among open and distance learning students in South-Western Nigeria. The results of the study revealed that open educational resources awareness among ODL students was on the average while open educational resources usage was very high. Similarly, Ivwighreghweta and Ambrose (2020) did a study on open educational resources utilization under the Covid-19 pandemic lockdown among distance postgraduate students in Nigeria: the case of the National Open University, Benin Study Centre, Edo State, Nigeria. The study shows that the students are aware of the concept of OER and their level of usage was high. Akomolafe and Adegun (2014) noted that there is a moderate use of open educational resources among undergraduates as a large number of students makes use of the internet to access learning resources in various forms such as video, audio and texts to support learning activities. Similarly, Nwana, (2017)revealed that even though there seems to be high awareness of open educational resources among undergraduates, there is a very low utilization of these resources for learning. They further stated that this may have occurred due to students' negative attitude toward e-resources. Afolabi (2017) revealed that students who are exposed to the use of open educational resources have a positive attitude toward its use and this showed in their academic performance as there was a significant difference in performance between their pre-test and post-test scores. Venegas-Muggli and Westerman, (2019) revealed an improved academic

performance from students that are exposed to the use of open educational resources than those who relied on traditional textbooks alone.

The utilization of several open educational resources has no doubt paved way for academic excellence. A study regarding the utilization of open educational resources by Nigerian undergraduate students found that the use of open educational resources enhanced the sharing of common knowledge, course structure, access to quality learning materials and use of real instructional materials online. (Olufunke and Adegun 2014). Therefore, it is very important for librarians and lecturers to promote awareness and use of open educational resources among their students. This can be done through workshops, seminars, and conferences using.

A study conducted by Obuh and Bozimo (2012) in southern Nigeria on the level of usage of open educational resources among undergraduates' students in the department of library and Information science indicated high level of usage. i.e. Undergraduates students exhibit a similar level of usage in terms of high priority in sourcing open educational materials for their work and also in their rate of retrieving open educational resources contents. Renwick (2015) conducted a study on the knowledge and use of open educational resources undergraduates' students of the University of the West Indies found that there is a high level of usage of open educational resources by faculty in their research and professional growth. However, Obuh and Bozimo (2012) observed that the high level of usage of open educational resources by undergraduates students can only be accounted for in terms of sourcing and retrieving its content for their research work as the result show that both

categories of lecturers rarely self-archived their work on the internet.

### **Challenges to the usage of Open Educational Resources**

Despite the level of understanding of usage of open educational resources in developed nations the developing countries and in Nigeria particularly, open educational resources are still not put into expected use, these online learning resources. It seems students are still not aware of the availability of open educational resources, the level of accessing open educational resources is minimal, and that is because there are series of challenges facing the usage of open educational resources. (West & Victor, 2021).

Looking in to Nigeria with regards to problems hindering effective usage of open educational resources, Christian (2019), reported that inadequate funding constitutes another problem, stressing that since most of the academic and research institutions in Nigeria are funded by the government, these institutions continue to grapple with percentage decline in budgetary allocation. Considering the fact that development of institutional repository in this part of the world is a capital intensive project, funding constitutes another major obstacle to the development of institutional repositories in the country's institutions. Adequate funding to build, upgrade and maintain ICT infrastructure is a problem in many developing countries. For example, because of the poor ICT infrastructure in academic and research institutions in developing countries like Nigeria it is difficult to sustain the development of institutional repositories. Upgrading ICT facilities requires enough financial support (Canada, 2019; Ikponmwosa 2023).

Academic librarians are presumably expected to open educational resources as authors and readers and as well promoter and supporter, therefore, their supportive measure in promoting open educational resources initiative is quite important. Mercer (2021), observed that with the expanded roles of libraries as publisher and increased expectations for subject librarians, one could assume academic librarians are well versed in scholarly communications topics, well prepared to share this knowledge with the rest of the academic community, Mercer (2023), further reiterated that Academic librarians have responsibility for maintaining awareness and promoting services such as institutional repositories as well as alternative publication avenues such as open educational resources journals, Palmer (2019) concluded that librarians are generally quite supportive of scholarly communications programs including opening access to scholarship, but are nonetheless ambivalent or unsure how to discuss these topics with faculty at their institutions.

The main barriers identified in Jean-Paul (2021) can be grouped under the following themes: technology; copyright; politics and culture; communities of practice; quality; and discovery, context and relevance. As open educational resources are digital by nature, they require that the basic Information and Communication Technology (ICT) infrastructure be in place in order to enable access to the localization and adoption of open educational resources content. However, since basic ICT infrastructure often does not exist in developing countries (Stacey, 2017), technological barriers, such as the lack of access to modern computers and the internet, still prove to be barriers to the use of

open educational resources. Less than 15% of the population in South Africa has access to the internet; this figure is still lower in countries like Nigeria (Wilson, 2018). Bandwidth is another issue (Stacey, 2017). By making open educational resources content available through web-based interfaces, technology has assisted in bypassing the barrier of interoperability and in making open educational resources more accessible (Atkins 2017).

Their lack of skills in the technology inhibited educators from using the open educational resources portal due to the amount of time it would take to learn the technology before content could be produced or edited (Petrides 2018). Where users had experience in producing and editing content on the technology platform, the level of use and reuse was high. To achieve this, however, educators need to be trained in the creation, use and reuse of learning materials (Panke, 2011). Comment facilities on open content portals assisted users in producing or editing content (Petride 2018), as it was not completely new and daunting.

Educators were concerned that copyright claims may be laid against them for the use or reuse of material where the author of the material had not granted the necessary permissions (Davis 2010). To counter these copyright concerns, a licensing system called the Creative Commons (CC) was established by Larry Lessig and others in 2001(Wiley &Gurrell, 2019). The CC licensing framework allows individuals and organizations to publish their work under different types of Intellectual Property licenses (Kozinska 2020). Additional flexibility of the framework allows authors to customize the license according to their requirements (Geith&Vignare, 2018). Thus

when potential users see the Creative Commons license, which changed the “all rights reserved” to some rights reserved open licensing they know that the educational content is open and freely available for use (West & Victor, 2021). However, the use of Creative Commons licensing is subject to some debate, especially the “commercial” and “non-commercial” license options (Joyce, 2017; Bissell, 2019). Additionally, licensing can become a point of confusion where content is mixed from different sources. If one Exploring the Barriers And Enablers to the use of open educational resources by University Academics in Africa content, source is registered under the non-commercial Share Alike license and the other under the attribution Share Alike license, a derivative of the original material cannot be used as the original licenses are incompatible (Wiley &Gurrell, 2019).

The right to education is currently more of an attainable goal in the developed, wealthier countries, whose aim is more on secondary education than it is in the poorer developing countries, whose aim is mainly primary education (Kozinska 2020). Political, social and economic factors influence accessibility to information and communication technologies (ICT). Developing countries have additional barriers which exist, to a lesser extent, in developed countries. Of the open education content produced by developed countries, a large amount is in English language and is based on Western Culture. This in itself could pose a large barrier to the adoption and use of open content in some part of the country which that have fewer resources for translating materials (Mora 2018). However, as the open educational resources movement gains momentum and more organizations join the fray, the amount of open educational

resources content which has been translated has increased (Geith&Vignare, 2018). Although potential cultural issues have also been mentioned no actual supporting evidence has been provided for this barrier (Mora 2018).

The concept of “build it and they will come” does not apply to open educational initiatives. (Hatakka, 2019) In order for individuals to use open educational resources, they have to feel part of the process and experience a sense of belonging (Windle, Wharrad, McCormick, Lavery, & Taylor, 2020). This can be achieved through communities of practice. There appears to be a correlation between the author group size and reuse of open educational resources initiatives (Petrides 2018). The size of an author group, and resultant collaboration between authors, increases the chance of reuse of OER initiatives (Petrides 2018). These author groups can also be referred to as communities of practice. Communities of practice can be seen as vehicles to improving the scalability of open educational resources, as the members share a common interest or goal, in producing and sharing knowledge. The members have the freedom to join or leave the community, and to provide a mixed bag of different skills and experiences which, when combined, can create scalable OER (Koohang& Harman, 2017).A good example of a community of practice is the opencourseWare consortium which, by creating a broad and deep body of open educational content using a shared model” (Friesen, 2019), provided institutions with the facility to apply the MIT model to their own courses. Wikipedia is another example where the Wikipedia community has assisted in improving the overall quality of content, through collaboration and redevelopment of content (Petrides 2018). The Hewlett Foundation, a funding body for

OER initiatives, is focusing on a community building model which will provide incentives to all the stakeholders, and will encourage a “culture of contribution” (Atkins 2017).

With the increase in the amount of open educational resources content being shared, quality and quality assurance have been raised as major concerns (Kozinska 2020). The term “quality” in itself is an issue, as quality can also be associated with the context within which it is used, and a sense of quality can only be gained once an individual forms a relationship with the material (Wiley &Gurrell, 2019). Iiyoshi and Kumar (2018) support this by saying that, in order to be able to evaluate the quality of content, it needs to be understood by whom the information will be used, how it will be used and when it will be used. For example, if a resource is written in Spanish but used by an individual who speaks Chinese, then the content would not be seen as high-quality material for that individual. open educational resources is open and free, which makes it more easily available to individuals to use; however, the term “free” is often incorrectly associated with poor quality (Panke, 2011). The Open Source Software movement was originally seen in the same light. When the concept of “free software” originally arose, questions were raised about its quality (Wiley &Gurrell, 2019). However, free and open software (FOSS) products have seen great successes, the openness associated with this software movement, has only increased the quality of the product.

Finding resources on the World-Wide Web can be difficult due to the enormous amount of content available (Panke, 2021), and due to the lack of useful metadata.

Open educational resources metadata is important in providing detail around the resource. For example, if an educator is searching for a video on a particular topic, but the video has to be viewed in order to decide its relevance, the educator would soon give up, as to review the entire video to determine its relevance would take too long (Wenk, 2020). Contextual information is also important in order for the educator to decide resource relevance. For example, what was the feedback from learners who used this information, and was the quality of the content deemed to be of a high standard (Davis, 2020). West and Victor (2021) identified that often the educational material is based on outdated educational design principles, and to update the material will burden the already overtaxed lecturers. When educators try to use the online learning content for their lectures, there may be issues if the content is not organized into smaller more manageable modules which can easily be mixed and combined to form learning content which matches that of the institution's course curriculum (Johnstone, 2015).

### **Review of reviewed of related literature**

Kamleshkumar, Kshema and Yogesh (2021) carried out a study on Open Educational Resources: an Overview. This paper focuses on historical background and the emergence of the concept of Open Educational Resources. The paper discusses the its definitions, types and formats of OER. The copyright and licensing consideration for OER are also discussed. Further, the paper highlights the advantages and disadvantages of OERs. Some important Open Educational Resource initiatives in India is listed.

Kurelovic (2016) carried out an investigation on Advantages and Limitations of Usage of Open Educational Resources in Small Countries. Educational resources in the competitive world of higher education were often considered as key intellectual property, so access to those resources was restricted to privileged groups of students and professors, which is unacceptable in today's networked society. Today, an

increasing number of institutions and individuals share such digital resources via the Internet free of any legal, financial or technical barriers. Open Educational Resources (OER) are the right way which enables free and accessible education to everyone and access to knowledge as public good. OER cherish the culture of participation, collaboration and sharing and with an open access to scientific information it brings a notable contribution in knowledge society development. The implementation of OER has certain limitations, in particular for small countries which use a non-English language, have limited resources and support to customize and create OER, their educational practice is founded on traditional teaching methods with occasional use of digital contents and ICT. The awareness raising and positive attitudes about OER are the first important step towards its acceptance. The empirical part of this paper is analysing attitudes toward OER among the scholars at few smaller public faculties in Croatia and their practice of sharing knowledge and teaching materials.

### **Summary of Literature Review**

The review of literature has extensively examined some independent variable such as awareness relation to usage of open educational resources which is the dependent variable for the study. The review of literature has shown that awareness has great influence on the usage of open educational resources in Nigeria and the world all over. It is imperative to note that majority of the studies reviewed were conducted in the developed countries. The review of literature has shown that open educational resources have being seen as educational materials that are freely made available on the internet for teaching, learning and research or educational purposes. Open educational resources can provide access to education for those in remote areas, for the society disadvantaged, and for the marginalized if carefully implemented, Open educational resources can play an important role in achieving the Sustainable Development Goals and enabling lifelong learning. Without the idea on existence of the open educational resources, many students might not be able to trace open educational resources and even use open educational resources for the academic work.

None of the literature reviewed globally collectively attempted to explain the combined influence of awareness on usage of open educational resources by LIS undergraduates in the departments of education management. This is the knowledge gap this study intends to fill.

## CHAPTER THREE

### RESEARCH METHODOLOGY

The methods and procedure used in conducting this research are described in this chapter. This is done under the following sub headings:

Research Design, Population of the Study, Sample and Sampling Technique, Research Instrument, Validity of the Instrument, Reliability of the Instrument, Method of Data Collection and Method of Data Analysis.

#### Research Design

The research design adopted for this study is survey design type of descriptive research. The descriptive survey design is used for this study because it does not manipulate the independent variable it describes the state of affairs of at the time of the study and the relationship between two or more variables without any hit of attributing the effect of one variable on the other.

#### Population of the study

The population of this study is 289. It is made up of undergraduates' library and informational science undergraduates in the department of educational management, University of Benin.

The details are presented in Table 3.1

**Table 3.1: Population for the Study**

Level of studes	Population
400	96
300	76
200	117

Total	289
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### **Sampling and sampling techniques**

Two sampling techniques were used for this study. They are total enumeration and accidental. The total enumeration sampling technique was used to select a sample size of 195 undergraduates Library and Information Science in the department of educational management, university of Benin.

The accidental (availability) sampling technique was employed to select each undergraduate in the Departments that were available as at the time of administrating the questionnaire.

### **Research instrument:**

The research instrument used for this research is a self-designed questionnaire with the title “Awareness and Usage of Open Educational Resources Questionnaire (AUOERQ)” The instrument consists of five sections: A-F. Section A sought for the personal information of the undergraduates such as sex and levels of study. Section B is the awareness of undergraduates towards open educational resources. This section has eight items which are presented on a four (4) point scale with 4, 3, 2, 1 point value attached to them respectively. Section C is the sources of awareness of OERs. Section D is the different types of open educational resources utilized by the LIS undergraduates Section E is the level of usage of Open Educational Resources among the LIS undergraduates. This section has eight items which are presented on a four

(4) point scale with 4, 3, 2, 1 point value attached to them respectively. Section F is the problems militating against the use of OERs.

### **Validity of the Instrument**

The questionnaire was given to the researcher's supervisors and other experts in the Department of educational management, University of Benin, Benin for their judgment, to establish the face and content validity of the instrument.

### **Reliability of the Instrument**

The test-retest method was employed to establish the reliability of the instrument using 30 undergraduates of the Delta State University, which is outside the sample of this study. Two weeks later, the researcher administered the same questionnaire to the respondents. The results from the two sets of questionnaire administered were analyzed using the Pearson's Product Moment Correlation coefficient. The index correlation obtained  $r$  is 0.763 which translates to a high reliability of the instrument and therefore is considered adequate.

### **Method of Data Collection**

The researcher and one research assistants administered the questionnaire on the respondents. The research assistants were instructed to administer the questionnaire randomly to available undergraduates in the respective levels that were present as at the time of the administration. They were advised to respect the privacy of the respondents and never to temper with their responses. Finally, the researcher made multiple follow-up contacts to the one research assistants by telephone calls and email to encourage high responses from the respondents.

### **Method of Data Analysis**

The data will be analyzed using descriptive statistics. Frequencies and percentage will be used in analyzing the bio-data of the respondents and also used to answer the research questions. This is because of the descriptive nature of the data. The data collected will be presented in tables for clarity sake.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

The chapter presents the results and discussion of the findings in line with the research questions. It is discussed under four sections. Section 4.1 deals with the questionnaire response rate, section 4.2 is concerned with the analysis of the demographic information of the respondents, sections 4.3 deals with the answering of the research questions and section 4.4 is concerned with the discussion of the findings.

#### Section 4.1: Questionnaire Response Rate

Table 4.1: Questionnaire Response Rate

Number of Questionnaire Administered	Number of Questionnaire Returned
282	195

A total of 282 copies of the questionnaire were distributed and 195 of them were returned.

#### Section 4.2: Analysis of the Demographic Information of the Respondents

Table 4.2: Gender of the Respondents

Gender	Frequency	Percentage (%)
Males	91	47
Females	104	53
Total	195	100.0

From Table 4.2, it can be seen that there were 91 (47%) males while there were 104 (53%) females. This implies that there were more female LIS undergraduates in the Department of Educational management than their male

counterpart.

**Table 4.3: Level of Study of the Respondents**

Level	Frequency	Percentage (%)
200	73	37
300	64	33
400	58	30
Total	195	100.0

Table 4.3 shows that 73 (37%) of the respondents were in 200 level, 64 (33%) of them were in 300 level and 58 (30%) were in 400 level. This implies that majority of the respondents were in their 200 and 300 levels respectively.

### Sections 4.3: Answering of the Research Questions

**Table 4.4: Research Question One:** What is the level of awareness of Open Educational Resources by LIS undergraduates in the Department of Educational Management, University of Benin?

Awareness	Very Aware		Aware		Not Aware		Very Unaware	
	No.	%	No.	%	No.	%	No.	%
I am aware of open educational resources.	71	(36%)	73	(37%)	34	(18%)	17	(9%)
I am aware that OERs can be used to improve my academic performance.	91	(47%)	32	(16%)	54	(28%)	18	(9%)
OER could be used to complement normal class teaching.	82	(42%)	96	(49%)	10	(5%)	7	(4%)
I know that OER is very easy to access and use.	101	(52%)	54	(28%)	21	(11%)	19	(9%)
I am aware that OER are in online or electronic format.	75	(38%)	80	(42%)	6	(3%)	34	(17%)
I am aware that OER are readily available for use, reuse, and research.	91	(47%)	85	(43%)	9	(5%)	10	(5%)

I am aware that anyone can freely and legally copy, use, reuse, adapt, and re-share OER.	85	(44%)	98	(50%)	2	(1%)	10	(5%)
I am aware that OERs can be used to enhance collaborative learning and gauge	92	(47%)	79	(4%)	15	(7%)	9	(4%)

Table 4.4 shows that the level of awareness of LIS undergraduates towards Open Educational Resources was high. Majority 85(44%) and 98(50%) indicated that they were aware that anyone can freely and legally copy, use, reuse, adapt, and re-share OER. This was followed by 82(42%) and 96(49%) who stated that OER could be used to complement normal class teaching. This implies that majority of the undergraduates were aware of the concept of Open Educational Resources.

**Table 4.5: Research Question Two:** What are the sources of awareness of Open Educational Resources by the LIS undergraduates?

Sources of OER	Frequency	Percentage (%)
University Library	56	28
Seminars and conferences	13	7
Lecturers	51	26
Self-exploration on the internet	75	39
Total	195	100.0

Table 4.5 show that majority of the respondents 75 (93%) became aware of OER though self-exploration on the internet. This was followed by 56 (28%) who indicated the University Library. This may be as a result of Internet revolution in Nigerian universities and for the fact that the undergraduates' students browse the Internet for literature to accomplish their academic work.

**Table 4.6: Research Question Three:** What are the different types of Open Educational Resources utilized by the LIS undergraduates?

OERs	Used (%)	Unused (%)
MIT Open courseware	72(37%)	123(63%)
Open access journals	152(77%)	43(23%)
Open audio/video	96(49%)	99(51%)
Open e-books	165(84%)	30(15%)
Open courses	78(40%)	117(60%)
Open conferences proceedings	95(49%)	100(51%)
YouTube video	101(52%)	94(48%)

Table 4.6 shows the types of Open Educational Resources used by the LIS undergraduates. Majority 165(84%) indicated that they make use of Open e-books. This was followed by 152(77%) who stated that they open access journals. However, MIT Open courseware, Open audio/video and Open conferences proceedings were not adequately utilized.

**Table 4.7: Research Question Four:** What is the level of usage of Open Educational Resources among the LIS undergraduates?

Usage	SA		A		D		SD	
	No.	%	No.	%	No.	%	No.	%
I use OERs for my research work.	86	44	79	40	21	11	9	5
I reference OERs.	93	48	68	35	16	8	18	9
To stay up-to-date in a subject or topic area.	76	39	91	47	20	10	8	4
I print OERs.	101	52	71	36	15	8	8	4
I cite OERs.	93	47	83	42	9	5	10	5
I have downloaded articles from OERs.	163	84	-	-	17	9	13	7
I access OERs.	95	49	94	48	-	-	6	3
I copy OER articles to USB flash drive.	56	29	41	21	71	36	27	14

Table 4.7 shows the level of usage of Open Educational Resources among the LIS undergraduates.

The study indicated that majority of the LIS undergraduates had high level of usage of open educational resources. 95 (49%) and 94 (48%) stated that they have access OERS. This was followed by 93 (47%) and 83 (42%) who agreed that they have I cited OERs.

**Table 4.8: Research Question Five:** What are the barriers associated with the use of Open Educational Resources by the LIS undergraduates?

Barriers	SA		A		D		SD	
	No.	%	No.	%	No.	%	No.	%
Poor Internet connectivity	56	29	61	31	54	27	24	12
Unstable power supply	87	45	83	43	20	10	5	3
Lack of retrieval skills	74	38	54	28	25	13	42	22
Inadequate ICT facilities	86	44	72	37	32	16	5	2
Lack of awareness of OER	30	15	4	2	94	48	67	34
Lack of internet search skills	56	29	98	50	40	21	1	0
Download delay	98	50	43	22	32	16	22	11

Table 4.7 shows the barriers associated with the use of Open Educational Resources.

Majority 87 (45%) and 83 (43%) indicated that Unstable power supply. This was followed by Inadequate ICT facilities 86 (44%) and 72 (37%).

## **Discussion of the Findings**

The findings of the study were reported in this section and were discussed in line with the findings from previous studies.

### **Awareness of Open Educational Resources by LIS Undergraduates**

The study indicated that the level of LIS undergraduates towards Open Educational Resources was high. As majority of them indicated that they were aware that OERs can be freely and legally copied, use, reuse, adapt, and re-share. This implies that majority of the undergraduates were aware of the concept of Open Educational Resources. This finding is in agreement with the study conducted by Obuh and Bozimo (2022), whose showed that most of the respondents, who were library and information science students in southern Nigerian indicated some level of familiarity with of open access publications. Similarly, Ivwighreghweta and Ambrose (2020) study showed that distance postgraduate students of the National Open University, Benin Study Centre, Edo State, Nigeria were aware of the concept of OER and their level of usage was high.

### **Sources of awareness of Open Educational Resources by LIS Undergraduates**

The result of the study shows that majority of LIS undergraduates became aware of OERs through self-exploration on the internet. This may be as a result of Internet revolution in Nigerian universities and for the fact that the undergraduates' students browse the Internet for literature to accomplish their academic work. This finding is in conformity with the study of

## **Different types of Open Educational Resources utilized by the LIS undergraduates**

The study shows that majority of LIS undergraduates make use of open e-books and open access journals. However, MIT Open courseware and Open audio/video were not put to use. This may be as a result of the fact that there are no restrictions to their use in terms of charges. This finding is in conformity with Ivwighreghweta and Onoriode (2022) whose study revealed that lecturers in the University of Benin utilized open access journals and open e-books for their research work.

## **Level of Usage of Open Educational Resources by LIS Undergraduates**

The study shows that LIS undergraduates had high level of usage of open educational resources. As majority agreed that they have access, cited, used, printed and downloaded OERs. This implies that they make use of it for the purpose of assignments, complimenting class notes and for examinations. This finding is in conformity with Ivwighreghweta and Ambrose (2020) whose study showed that distance postgraduate students of the National Open University, Benin Study Centre, Edo State, Nigeria were aware of the concept of OER and their level of usage was high.

## **Barriers associated with the use of Open Educational Resources**

The study shows that majority of the LIS undergraduates indicated that unstable power supply, inadequate ICT facilities, poor Internet connectivity, lack of retrieval skills, lack of internet search skills and download delay as barriers associated with the use of OERs. This study is in conformity with Ivwighreghweta and Oyeniran (2023) those studies showed that slow internet services, erratic power supply, inadequate computers, lack of

online access, lack of technical know-how and lack of e-resources have been identified as major constraints militating against effective use of OERs in the selected universities studied.

**CHAPTER FIVE**  
**SUMMARY OF FINDINGS, CONCLUSION AND**  
**RECOMMENDATIONS**

**Summary of the Study**

The research investigated the awareness and usage of open educational resources among LIS undergraduates in the Department of Educational Management, Faculty of Education, University of Benin. It was carried out to ascertain the level of awareness and usage of LIS undergraduates' towards OERs. A proper review of related literature was carried out. The survey type of descriptive research method was adopted for this study and data gathered from 195 respondents through the questionnaire were analyzed using frequency and percentage as analytical tools in answering the research questions. The summary of the findings of this study are presented as follows:

LIS undergraduates' had high level of awareness of open educational.

LIS undergraduates became aware of OER through self-exploration on the internet.

They mostly consulted open e-books and open access journals. However, MIT Open courseware, Open audio/video and Open conferences proceedings were not adequately utilized.

LIS undergraduates had high level of usage of open educational resources. As majority agreed that they have access, cited, used, printed and downloaded OERs.

LIS undergraduates indicated that unstable power supply, inadequate ICT facilities,

poor Internet connectivity, lack of retrieval skills, lack of internet search skills and download delay as barriers associated with the use of OERs.

## **Conclusion**

The study provided data on variables that predicted the LIS undergraduates' awareness and usage of open educational resources. The research revealed that, LIS undergraduates' in the Department of Education Management in the University of Benin had high level of awareness and usage of OERs. However, unstable power supply, inadequate ICT facilities, poor Internet connectivity, lack of retrieval skills, lack of internet search skills and download delay were the barriers associated with the of use of OERs.

## **Recommendations**

In view of the findings of the study, the following recommendations were made:

Orientation, workshop and seminar should be organized by librarians and the department on the use of open educational resources. Undergraduates' attendance at such orientation, workshop and seminar should be made mandatory.

Funding bodies such as government should ensure the provision of well-equipped ICT library in order to attract students to the library. This can be achieved by making available relevant information technologies that will enable the use of OERs.

Lecturers in the Departments of LIS in the University of Benin should make more regular use of OERs as this will enable them perform better academically. This can be

achieved by giving students assignments that will force to make use of OERs.

### **Contributions to Knowledge**

This study has contributed to knowledge in the following ways:

The study established that there was a high level of awareness of open educational resources among LIS undergraduates.

The study ascertained that there was a level of usage of open educational resources among the LIS undergraduates.

### **Limitations of the Study**

1. Unavailability of fund: Lack of adequate fund did not allow me to carry out an extensive research
2. Unwillingness of the respondents: Some of the respondents were unwilling to complete the questionnaire at a good record time. And respondents with the completed questionnaire were unwilling to return them.
3. Compressed academic session: Due to the long strike action, the academic session was compressed and there were so much pressure and hurry to complete the session. As a result of this I was not able to carry out an extensive research.

### **Suggestion for Further Study**

Awareness, usage and attitude of LIS undergraduates in universities in South-South, Nigeria.

Empirical analysis of the factors influencing the usage of open educational resources among LIS students in universities in Northern Nigeria.

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## APPENDIX

### UNIVERSITY OF BENIN, BENIN CITY FACULTY OF EDUCATION DEPARTMENT OF EDUCATIONALMANAGEMENT (EDM) QUESTIONNAIRE

**To be responded to by library and information science undergraduate students**

This is a study on Awareness, attitude and usage of open educational resources among library and information science undergraduates. A case study of department of educational management, university of Benin

Please complete the structured questionnaire by ticking the relevant box or filling the blank spaces. If you have any question, please ask before you start. Provide the details below and then proceed to answer the questions. Please note that the information you are giving would be used for research purposes and would be treated with confidentiality.

**SECTION A: BIODATA**

**Instruction:** please tick [] where appropriate

**Gender: Male** [] **Female** []

**Age:** 20-30years [] 31-40years [] 41-50years [] 51-60years [] 61 years and Above []

**Years of Working Experience/level:** 1 - 10 years [] 11-20years [] 21-30years []

**Level (Students only):** []

**Faculty:** (Students only):

**Section B:** please tick [] where appropriate

S/N	Awareness of open educational resources among LIS undergraduates students	SA	A	D	SD
1	I am aware of open educational resources				
2	I am aware that open educational resources are readily available for use, reuse and for research				
3	I am aware that anyone can legally and freely copy, adapt and re-share OER				
4	I am aware that open educational resources are in online/electronic format				
5	I know that open educational resources do assist me in carrying out my academic activities				
	<b>Attitude of LIS student towards the use of open educational resources</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
6	Open educational resources enables effective ways of sourcing for educational materials				

7	The use of open educational resources suits my reading styl				
8	Using the open educational resources makes learning easier				
9	Open educational resources contents are be reliable				
10	It is quicker to use physical books and materials from the library than accessing open educational resources contents				

	<b>Usage of open educational resources among LIS student</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
11	I often use open educational resources to get relevant learning materials online				
12	I make use of open educational resources in my assignments				
13	I visit MIT pen course ware web site to get access to free online learning resources				
14	Online learning materials have been of immense assistance in my studies				
15	I watch teaching and learning session, on online video through open educational resources				

	<b>Challenges to the usage of open educational resources</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
16	Lack of effective internet connectivity				
17	Inadequate information retrieval skills				
18	Epileptic power supply:				
19	Lack of access to computers/laptops				
20	Lack of library sensitization on the use of OER				