

INFLUENCE OF INTERNET LITERACY SKILLS ON THE USE OF OPEN EDUCATIONAL RESOURCES BY UNDERGRADUATES IN SELECTED PRIVATE UNIVERSITIES IN OGUN STATE, NIGERIA.

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Abstract

This study investigated the influence of internet literacy skills on the use of Open Educational Resources by undergraduates in selected private universities in Ogun State, Nigeria. Four research questions and one hypothesis were drawn from the research objectives. The research design adopted for the study was a descriptive survey design of the correlational type. A stratified sampling technique was used to draw the sample size. Data was collected from two hundred and thirty-three (233) undergraduates at selected private universities in Ogun State, Nigeria. Data analysis was done in an SPSS output format based on simple mean, standard deviation, frequency count, and percentages to answer the research questions, while Pearson's Product Moment Correlation Coefficient was used to test the null hypothesis at the 0.05 level of significance. The findings of this study revealed that the level of internet literacy skills of undergraduates is average; the majority of the undergraduates use YouTube videos, project reports, and lecture notes; the majority of the undergraduates frequently use YouTube videos, Coursera, and Open textbooks; lack of time to look for suitable resources is a major challenge to using OER by undergraduates; internet literacy skills do not have a linearly significant relationship with use of OER ($r = -.002$; $p > .978$). Undergraduates should open themselves up to self-learning, virtual, and physical training to help them improve their overall internet literacy skills.

Keyword: Internet Literacy Skills, Open Educational Resources, Use of Open Educational Resources, Undergraduates, Influence

Introduction

Open educational resources (OER) are open, accessible worldwide, and have become popular among scholars, practitioners, and educational institutions, enhancing the learning experience and reducing the scarcity of learning resources. In addition, a notable educational movement recognised in the 21st century is Open Educational Resources (Shear, Means, & Lundh, 2015). The concept of Open Educational Resources can be described as technology-enabled, free resources available for consultation, use, and adaptation by a community of users, primarily used by teachers and educational institutions. According to Wiley (2018), Open Educational Resources provides learners with free and long-lasting access to "engage in the '5R' activities—retain, reuse, and revise to redistribute" educational resources. Specifically, Open Educational resources have been created to empower and build institutions' capacity to participate effectively in creating the open courseware.

Jena (2010) believes that Open Educational Resources can facilitate e-learning by providing learning content, initiating platforms, promoting content licensed under the Creative Commons, establishing professional forums, and enhancing university growth. These resources can be used in various aspects of e-learning, including online learning, student assessment, admission, and administrative issues. Open Educational Resources can include open access articles, YouTube videos, website links, public domain resources, syllabi, open courseware, and open textbooks. They can also be used in higher education, enabling professional discussion and enhancing personal knowledge for learners and lecturers. Open Educational Resources are particularly beneficial in developing countries, as they can be reused in other educational products.

As identified by Hylan (2014), Nigeria's educational sector is thriving due to the availability of Open Educational Resources, which are free and easy to use. Open Educational Resources has no technical, price, or legal restrictions, making it popular among students. However, only the National Open University of Nigeria and National Teachers Institute are recognised as proponents of Open Educational Resources in Nigeria. Despite positive attitudes and motivations for using Open Education Resources, students struggle with Open Educational Resources adoption due to institutional policies that do not allow collaboration with other institutions to access their collections, inadequate technology tools needed to access Open Education Resources, and a poor understanding of how to use Open Education Resources. Barriers also include a lack of awareness, university elitism, faculty resistance, and publisher lobbying. To create an enabling environment, reducing these barriers is crucial for promoting Open Education Resources adoption (Olcott, 2012). It should be added that, for efficient use of Open Education Resources, students must possess some level of internet literacy skills.

Sadiku, Shadare, and Musa (2016) described internet literacy skills as an individual's proficiency in using interconnected digital devices like computers, tablets, and smartphones. These skills are crucial for accessing the internet, as they involve understanding and navigating the online space to retrieve necessary information, which may not always be the case for all individuals. Also, Sadiku et al. (2016) reported that internet literacy skills benefit undergraduates by providing a platform for communication and social interaction. Online channels like WhatsApp, Twitter, and Facebook foster group interaction. Possessing internet literacy skills gives students confidence to tackle challenging tasks and provide solutions to difficult questions or assignments using the right search engines and online sources.

In the same vein, the level of internet literacy skills of undergraduates is also vital, and authors such as Soroya, Ahmad, Ahmad, and Soroya (2021) revealed that undergraduates are knowledgeable about legal and illegal information, stay safe online, and use popular communication mediums like WhatsApp, Google, YouTube, Facebook, and email. Therefore, this study will seek to investigate the influence of internet literacy skills on the use of Open Educational Resources by undergraduates in selected private universities in Ogun State, Nigeria.

Statement of the problem

Open Educational Resources are crucial for global learning networks and reducing knowledge divides. However, traditional education faces challenges in providing high-quality learning while reducing costs. New developments in technology, such as internet access, wireless networks, and mobile devices, can increase access and flexibility in education. Also, research on students' use of Open Educational Resources in developing nations like Nigeria is growing. An existing study has also identified factors affecting Open Educational Resources usage, including a lack of confidence in using computer tools and internet literacy skills. Therefore, this study investigated the influence of internet literacy skills and computer self-efficacy on the use of Open Educational Resources by undergraduates in selected private universities in Ogun State, Nigeria.

Research questions

The following questions were raised to guide the study:

1. What are the types of Open Educational Resources used by undergraduates in selected private universities in Ogun State, Nigeria?
2. What is the frequency of use of open educational resources by undergraduates in selected private universities in Ogun State, Nigeria?
3. What is the level of internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria?
4. What are the challenges of using open educational resources faced by undergraduates in selected private universities in Ogun State, Nigeria?

Hypothesis

The following null hypothesis was formulated and tested in the study at a 0.05 level of significance:

H₀₁ There is no significant relationship between internet literacy skills and use of open educational resources by undergraduates in selected private universities in Ogun State, Nigeria.

Literature Review

Use of Open Educational Resources by undergraduates

Open Educational Resources (OER) are gaining popularity among undergraduate students for cost savings, flexibility, and enhanced engagement, proving as effective as traditional textbooks in improving learning outcomes (Issa et al., 2020). Dsouza (2021) highlights Open Educational Resources as a student-centred approach that promotes active participation, innovative course material engagement, and enhanced critical thinking skills, enabling tailored educational strategies. A study by Obinyan, Okoroafor, and Ezenwuzor (2023) found that most students in universities are aware of Open Educational Resources, indicating their increasing popularity. The study found a direct relationship between students' awareness and Open Educational Resources usage, with popular resources being journal articles, courseware, lecture notes, books, and projects. However, video content, conference proceedings, and inaugural lectures were less used.

Christoforidou and Georgiadou's 2022 study in Greece found low awareness of Open Educational Resources among higher education students and educators. Despite educators sharing their Open Educational Resources, many students have limited knowledge about Open Educational Resources usage. The study suggests that educators, university administrators, and librarians should take action to educate students about the benefits of Open Educational Resources and communicate efforts to increase engagement, ensuring more learners have access to quality content at no cost. Similarly, the study by Issa, Ibrahim, Onojah, and Onojah (2020) examined undergraduates' attitudes towards using Open Educational Resources for learning. The research found that most students hold positive attitudes towards Open Educational Resources, with males having a more favourable perception. However, no significant differences were found based on specialization. The study highlights the importance of embracing open education practices and encouraging students from all backgrounds to effectively utilise available resources.

Dsouza's 2021 study on Open Educational Resources usage at St. Joseph Engineering College in Mangaluru, Karnataka, found that 26.44% of students and faculty regularly use Open Educational Resources, with 21.84% using them weekly and 46.55% using them twice per week. The primary reasons for Open Educational Resources usage were online education facilitation and convenience, with access to library support services and institutional initiatives being more effective. In addition, the study by Obinyan, Okoroafor, and Ezenwuzor (2023) found that most university students are aware of Open Educational Resources and use them as learning resources. Students mostly use projects, journal articles, courseware, books, and lecture notes, with video content, inaugural lectures, and conference proceedings being less used. However, barriers like inadequate skills, limited knowledge, and poor power supply hinder effective use of Open Educational Resources in this population.

Hilton, Larsen, Wiley, and Fischer's 2019 study analysed Open Educational Resources usage in higher education settings, focusing on student efficacy and user perceptions. The study, involving 121,168 students or faculty members, found that Open Educational Resources users achieve similar or better learning outcomes compared to traditional sources while saving money. Both faculty and students reported positive feedback and expressed interest in using Open Educational Resources again in future projects. Also, Mohanasundaram and Santhi's (2022) study on open educational resources in Erode district, Tamil Nadu, found that most students from both government and private schools used laptops and perceived a high level of impact from Open Educational Resources. Students who were allotted more time for e-learning also reported higher benefits. The findings suggest Open Educational Resources can enhance learning outcomes for students from different backgrounds.

In addition, Angelopoulou, Hodhod, and Perez (2022) found that students' perceptions of Open Educational Resources textbooks were not significantly influenced by their demographics. Frequent Open Educational Resources users were less positive, and those with higher motivation perceived them as better than traditional textbooks. These findings can inform educators' decisions on incorporating Open Educational Resources into higher education settings for different demographic profiles.

Internet literacy skills of undergraduates

The Internet has revolutionised communication, knowledge acquisition, and world exploration, making it crucial for university students to have adequate Internet literacy skills as they embark on their academic journey in this digital age (Daghan, 2017). It is imperative that internet literacy skills be used interchangeably with digital literacy, information literacy, and computer literacy. Digital literacy focuses on extracting and assessing information from various sources, while information literacy focuses on using technology to achieve specific objectives. These terms signify an individual's proficiency in using technology effectively in the digital realm (Obasuyi and Otabor, 2012).

According to Khan et al. (2022), developing strong internet literacy skills is crucial for protecting online privacy and security. The internet has become a vital part of our daily lives, serving various purposes. Critical skills like evaluating sources and identifying security threats are essential for effective internet safety practices. Operational skills like managing passwords and using privacy settings are also crucial. Visual and collaborative learning styles can enhance navigating complex interfaces. Training or education programmes can improve operational knowledge, leading to improved academic performance and greater employability opportunities. Also, Adeoye and Adeoye's (2017) research shows Nigerian undergraduate students are confident in their information literacy skills, utilising online resources without plagiarism, and communication technology literacy. In addition, Obasuyi and Otabor's 2012 survey on internet literacy among University of Benin physical science students found that many had the necessary computer, internet, and ICT skills, indicating high internet literacy levels.

Internet literacy skills and use of Open Educational Resources by undergraduates

Internet literacy skills are crucial for students to access and use Open Educational Resources effectively due to the rise of digital technology. They enable students to navigate online resources, assess their credibility, and quickly analyse data (Harsasi, 2015). The study by Effiong and Agboke (2022) found that postgraduate students in South-South Nigeria have low internet literacy skills and use of electronic resources in federal university libraries. The findings suggest that students may lack the necessary skills to effectively utilise these resources, highlighting the need for interventions to improve internet literacy proficiency.

Similarly, Adeleke and Emeahara's 2022 study found low usage of electronic resources among postgraduate students at the University of Ibadan, Nigeria, due to a lack of search technique skills. However, the study found a significant relationship between information literacy skills and electronic resource usage, highlighting the need for improved research utilisation in the digital age. The study by Ivwighreghweta and Stella (2022) examined digital literacy skills and electronic resource usage among Nigerian undergraduates. Results showed that most students had high digital literacy skills and used electronic resources effectively. However, there was no significant relationship between digital literacy skills and electronic resource usage. The study suggests that even students with low digital literacy skills can effectively use electronic resources for academic purposes.

Challenges to the use of Open Educational Resources by undergraduates

Open Educational Resources offer valuable educational materials to undergraduates, but challenges like inadequate internet access, outdated devices, and digital unfamiliarity can hinder their efficient use. Christoforidou and Georgiadou's 2022 study on Greek Graphic Arts students and educators found that, despite educators using Open Educational Resources, undergraduate students have limited knowledge about its benefits, suggesting the need for further education. Additionally, Akomolafe and Adegun's (2014) study revealed Nigerian university undergraduates face challenges like inconsistent electrical power, unfamiliarity with Open Educational Resources websites, and a lack of open educational resources. Luo, Hostetler, and Freeman (2013) highlight that the high costs of traditional textbooks significantly hinder low- and moderate-income college students from completing their degrees. Similarly, Ovadia (2019) suggests that Open Educational Resources files should be easily modified and downloaded without technical constraints to ensure compliance with licensing provisions.

Methodology

A descriptive survey research design of the correlational type was adopted for the study. This adoption was made due to the fact that the study is quantitative in nature. Seven thousand six hundred and ninety-one (7,691) undergraduate students from two (2) carefully selected private universities in Ogun State, Nigeria, made up the study population. Babcock University, Ilishan-Remo, and Covenant University, Ota, are the universities selected. The sample size of two hundred and thirty-three (233) undergraduates was selected to reflect 3% of the total population using stratified random sampling technique. This technique is appropriate for this study because of the heterogeneous nature of the population. The research instrument that was used in gathering information for this study was a questionnaire, which was termed the Internet Literacy Skills and Use of Open Educational Resources (ILSUOER) scale. The instrument (a questionnaire) was given to three experts in the Department of Library and Information Science, Tai Solarin University of Education, Ijagun. Thereafter, corrections were made to the instrument based on their comments. The questionnaire was administered by the researcher to the undergraduate students. Out of 233 copies of the questionnaire that were administered, 227 were returned and found useful for the study, giving a response rate of 97.4%. Using the Statistical Package for Social Sciences (SPSS), the data generated from the study was computed and analyzed. Descriptive statistics, including frequency counts, percentages, means, and standard deviations, were employed for research questions 1–4, while the research hypothesis was tested using the Pearson Product Moment Correlation method.

Results and Discussion

Research Question 1: What are the types of Open Educational Resources used by undergraduates in selected private universities in Ogun State, Nigeria?

Table 1: Types of Open Educational Resources used by undergraduates in selected private universities in Ogun State, Nigeria

S/N	Open Educational Resources	No	Yes
1	CollegeOpen Textbook	136(59.9%)	91(40.1%)
2	Conference papers	163(71.8%)	64(28.2%)
3	Coursera	68(30%)	159(70%)

4	Courseware from other Universities	147(64.8%)	80(35.2%)
5	Directory of Open Access Books	152(67%)	75(33%)
6	Directory of Open Access Journals	146(64.3%)	81(35.7%)
7	Lecture notes	62(27.3%)	165(72.7%)
8	National Open University of Nigeria OER Repository	146(64.3%)	81(35.7%)
9	National Programme on Technology Enhanced Learning (NPTEL)	147(64.8%)	80(35.2%)
10	NOUN OER Repository	143(63%)	84(37%)
11	OER Africa-	169(74.4%)	58(25.6%)
12	Open Educational Resources Commons	135(59.5%)	92(40.5%)
13	Open textbooks	136(59.9%)	9(40.1%)
14	OpenLearning Initiative	131(57.7%)	96(42.3%)
15	Project reports	40(17.6%)	187(82.4%)
16	Skills Commons	144(63.4%)	83(36.6%)
17	Wikiwijs	168(74%)	59(26%)
18	YouTube videos	37(16.3%)	190(83.7%)

Table 1 shows the results for the types of Open Educational Resources used by undergraduates in selected private universities in Ogun State, Nigeria. It was revealed that the types of Open Educational Resources used include YouTube videos 190 (83.7%); project reports 187 (82.4%); lecture notes 165 (72.7%); and coursera 159 (70%). This implies that the majority of the undergraduates in selected private universities in Ogun State, Nigeria identified YouTube videos, project reports, lecture notes, and coursera as the Open Educational Resources used.

In accordance with the findings of this study, Obinyan et al. (2023) showed that certain types of resources were more popularly used by students than others. Such resources include journal articles, courseware, lecture notes, books, and projects and theses. Similarly, Obinyan, Okoroafor, and Ezenwuzor (2023) found that students mostly use projects, theses, journal articles, courseware, books, and lecture notes as learning resources. This brings to the fore the popularity of lecture notes, courseware, books, and project reports among undergraduates who cannot seem to do without them.

Research Question 2: What is the frequency of using open educational resources by undergraduates in selected private universities in Ogun State, Nigeria?

Table 2: Frequency of using open educational resources by undergraduates in selected private universities in Ogun State, Nigeria

S/N	Open Educational Resources	Never	Annually	Monthly	Weekly	Daily	Mean \bar{x}	St. Dev
1	CollegeOpen Textbook	104 (45.8%)	73 (32.2%)	28 (12.3%)	16 (7%)	6 (2.6%)	1.88	1.05
2	Conference papers	125 (55.1%)	74 (32.6%)	26 (11.5%)	2 (0.9%)	-	1.58	0.73

3	Coursera	17 (7.5%)	15 (6.6%)	82 (36.1%)	81 (35.7%)	32 (14.1%)	3.42	1.06
4	Courseware from other Universities	71 (31.3%)	122 (53.7%)	34 (15%)	-	-	1.83	0.66
5	Directory of Open Access Books	71 (31.3%)	120 (52.4%)	36 (15.9%)	-	-	1.84	0.67
6	Directory of Open Access Journals	71 (31.3%)	119 (52.4%)	37 (16.3%)	-	-	1.85	0.68
7	Lecture notes	23 (10.1%)	30 (13.2%)	118 (52%)	44 (19.4%)	12 (5.3%)	2.96	0.97
8	National Open University of Nigeria OER Repository	73 (32.2%)	121 (53.3%)	33 (14.5%)	-	-	1.82	0.66
9	National Programme on Technology Enhanced Learning (NPTEL)	66 (29.1%)	117 (51.5%)	42 (18.5%)	2 (0.9%)	-	1.91	0.71
10	NOUN OER Repository	79 (34.8%)	114 (50.2%)	34 (15%)	-	-	1.80	0.68
11	OER Africa-	83 (36.6%)	109 (48%)	35 (15.4%)	-	-	1.78	0.69
12	Open Educational Resources Commons	71 (31.3%)	108 (47.6%)	45 (19.8%)	-	3 (1.3%)	1.92	0.79
13	Open textbooks	20 (8.8%)	29 (12.8%)	99 (43.6%)	59 (26%)	20 (8.8%)	3.13	1.04
14	Open Learning Initiative	66 (29.1%)	101 (44.5%)	51 (22.5%)	5 (2.2%)	4 (1.8%)	2.03	0.87
15	Project reports	31 (13.7%)	37 (16.3%)	81 (35.7%)	67 (29.5%)	11 (4.8%)	2.95	1.09
16	Skills Commons	120 (52.9%)	68 (30%)	36 (15.9%)	-	3 (1.3%)	1.66	0.84
17	Wikiwijs	116 (51.1%)	73 (32.2%)	34 (15%)	1 (0.4%)	3 (1.3%)	1.68	0.84

18	YouTube videos	6 (2.6%)	-	39 (17.2%)	135 (59.5%)	47 (20.7%)	3.95	0.79
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Research Question 3: What is the level of internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria?

Table 3: Internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria

Items	SD	D	A	SA	Mean \bar{x}	St. Dev.
I cannot have meals or go to bed on time when I surf the internet	53 (23.3%)	102 (44.9%)	72 (31.7%)	-	2.08	0.74
I lose my emotional control when I surf the internet	-	101 (44.5%)	102 (44.9%)	24 (10.6%)	2.66	0.66
Even though I know some behaviors are wrong; I still do them on the internet	26 (11.5%)	-	125 (55.1%)	76 (33.5%)	3.10	0.89
When I surf the internet, I behave impulsively	-	50 (22%)	100 (44.1%)	77 (33.9%)	3.11	0.74
When I surf the internet, I forget everything else in the real world	-	26 (11.5%)	122 (53.7%)	70 (34.8%)	3.23	0.64
I like to press 'like' on social media in order to encourage my friends to share their stories with me	-	24 (10.6%)	102 (44.9%)	101 (44.5%)	3.33	0.66
I like to praise my friends on social media to make them feel that I am friendly	-	26 (11.5%)	148 (65.2%)	53 (23.3%)	3.11	0.58

I pay close attention to my friends' activities on social media to make them feel that I am concerned about their life	-	50 (22%)	125 (55.1%)	52 (22.9%)	3.00	0.67
I apologize to my friends on social media if I hurt their feeling	-	101 (44.5%)	74 (32.6%)	52 (22.9%)	2.78	0.79
I apologize to my friends on social media if I do something wrong	50 (22%)	50 (22%)	79 (34.8%)	48 (21.1%)	2.55	1.06
In order to maintain a positive image among my friends, I tend to explain the details if I am involved in some negative events	48 (21.1%)	100 (44.1%)	52 (22.9%)	27 (11.9%)	2.25	0.93
I can use several simple keywords to summarize the information that I need to search	50 (22%)	48 (21.1%)	103 (45.4%)	26 (11.5%)	2.46	0.96
I am familiar with several information sources: portal web, forum, blog, internet encyclopedia (such as Baidu Encyclopedia), social media, and digital library	-	98 (43.2%)	103 (45.4%)	26 (11.5%)	2.68	0.67
When I face difficulties in searching for information on the internet, I will ask for help from the following media: Baidu Encyclopedia, and Forum	24 (10.6%)	127 (55.9%)	76 (33.5%)	-	2.22	0.62
The following factors can affect my judgment of information credibility: the media's authority, information source's authority, information channel's authority and personal experience	77 (33.9%)	126 (55.5%)	24 (10.6%)	-	1.76	0.63
I think public figures have consistent behaviors both on the internet and in their daily life	102 (44.9%)	101 (44.5%)	24 (10.6%)	-	1.65	0.66
If someone I like faces criticism on the internet, I think the criticism is baleful	51 (22.5%)	102 (44.9%)	74 (32.6%)	-	2.10	0.74
Before I buy digital products, I	-	51	102	74	3.10	0.74

only watch the products' advertisements for information		(22.5%)	(44.9%)	(32.6%)		
Internet media's reports on crime make me feel that the crime rate in society is increasing	27 (11.9%)	52 (22.9%)	74 (32.6%)	74 (32.6%)	2.85	1.01
I like to share my successful experiences with others	26 (11.5%)	51 (22.5%)	102 (44.9%)	48 (21.1%)	2.75	0.92
When netizens ask for help, I would like to give suggestions	51 (22.5%)	76 (33.5%)	50 (22%)	50 (22%)	2.43	1.07
I participate in discussions on the forum and express my opinion	24 (10.6%)	75 (33%)	52 (22.9%)	76 (33.5%)	2.79	1.03
I share my reading notes with friends on the internet	27 (11.9%)	76 (33.5%)	98 (43.2%)	26 (11.5%)	2.54	0.85
Cyber manhunt is a reasonable way to bring the truth to light	52 (22.9%)	101 (44.5%)	48 (21.1%)	26 (11.5%)	2.21	0.93
I used to curse other people on forums or social media	53 (23.3%)	52 (22.9%)	98 (43.2%)	24 (10.6%)	2.40	0.96
I pretended to be someone else for online activities	-	103 (45.4%)	100 (44.1%)	24 (10.6%)	2.65	0.66
I support internet legislation, and I am willing to accept legal supervision	27 (11.9%)	102 (44.9%)	50 (22%)	48 (21.1%)	2.52	0.96
If I transmit others' original works, I will mention that I cite this from others and provide its original source	52 (22.9%)	77 (33.9%)	48 (21.1%)	50 (22%)	2.42	1.07
I use privacy settings on social media	51 (22.5%)	102 (44.9%)	74 (32.6%)	-	2.10	0.74
I consider others' daily schedules when I use the internet to connect with them	48 (21.1%)	77 (33.9%)	102 (44.9%)	-	2.23	0.78
Grand mean					77.20	

Table 3 shows results for the internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria. It was revealed that they like to press 'like' on social media in order to encourage their friends to share their stories with them ($\bar{x}=3.33$; $\text{std dev.}=0.66$); when they surf the internet, they forget everything else in the real world ($\bar{x}=3.23$; $\text{std dev.}=0.64$); when they surf the internet, they behave impulsively ($\bar{x}=3.11$; $\text{std dev.}=0.74$); they like to praise their friends on social media to make them feel that they are friendly ($\bar{x}=3.11$; $\text{std dev.}=0.58$). This implies that the majority of undergraduates in selected private universities like to press 'like' on social media in order to encourage their friends to share their stories with them.

Table 4: Test norm table for internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria

Interval	Overall mean score	Remark
1 – 40		Low level
40.1 – 80	77.20	Average level
80.1 – 120		High level

In order to establish the level of internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria, a normative test was conducted. Results showed that a scale between 1 and 40 indicates low internet literacy skills; 40.1 and 80 indicate moderate internet literacy skills; and 80.1 - 120 indicate high internet literacy skills. The overall mean of internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria is "77.20." It can therefore be concluded that the level of internet literacy skills of undergraduates in selected private universities in Ogun State, Nigeria is average.

In contrast with the findings of this study, Adeoye and Adeoye (2017) noted that a significant number of undergraduate students attending Nigerian universities exhibit a high level of confidence in their digital literacy skills. They seem to be proficient in utilising online resources without resorting to plagiarism. Additionally, they also conveyed assurance regarding their information and communication technology literacy skills, particularly when it comes to written online communication. Similarly, Obasuyi and Otabor (2012) disagreed with the findings of this study as they revealed that many students possessed the necessary computer, internet, and ICT skills as required, indicating high levels of internet literacy among the majority of participants.

Research Question 4: What are the challenges of using Open Educational Resources by undergraduates in selected private universities in Ogun State, Nigeria?

Table 5: Challenges of using Open Educational Resources by undergraduates in selected private universities in Ogun State, Nigeria

S/N	Challenges	SD	D	A	SA	Mean \bar{x}	St. Dev
1	Inadequate information retrieval skills	27 (11.9%)	99 (43.6%)	78 (34.4%)	23 (10.1%)	2.42	0.83
2	Poor internet connectivity	9 (4%)	84 (37%)	134 (59%)	-	2.55	0.57
3	Poor electricity supply	26 (11.5%)	62 (27.3%)	116 (51.1%)	23 (10.1%)	2.59	0.82
4	Lack of access to computers/laptops	4 (1.8%)	61 (26.9%)	130 (57.3%)	32 (14.1%)	2.83	0.68
5	Lack of time to look for suitable resources	26 (11.5%)	9 (4%)	116 (51.1%)	76 (33.5%)	3.06	0.91
6	Lack of library sensitisation on	35 (15.4%)	26 (11.5%)	151 (66.5%)	15 (6.6%)	2.64	0.82

	the use of Open Educational Resources						
7	Academic competition between institutions and educators	52 (22.9%)	63 (27.8%)	41 (18.1%)	71 (31.3%)	2.57	1.16
8	Low Awareness	30 (13.2%)	63 (27.8%)	85 (37.4%)	49 (21.6%)	2.67	0.96
9	Non-Availability of OER	53 (23.3%)	35 (15.4%)	59 (26%)	80 (35.2%)	2.73	1.17
10	Copyright policies	26 (11.5%)	41 (18.1%)	129 (56.8%)	31 (13.7%)	2.72	0.84
11	Mistrust in OER quality	35 (15.4%)	103 (45.4%)	85 (37.4%)	4 (1.8%)	2.25	0.73
12	Technological limitations around adaptation and sharing	26 (11.5%)	35 (15.4%)	166 (73.1%)	-	2.61	0.68
13	Language/Cultural barrier	52 (22.9%)	36 (15.9%)	116 (51.1%)	23 (10.1%)	2.48	0.96
14	Lack of human interaction between teachers and students	-	84 (37%)	98 (43.2%)	45 (19.8%)	2.82	0.74
15	Sustainability issues	-	54 (23.8%)	120 (52.9%)	53 (23.3%)	2.99	0.69
16	Incompatible with learning activities	4 (1.8%)	81 (35.7%)	98 (43.2%)	44 (19.4%)	2.80	0.76
17	Incompatibility with Syllabus	32 (14.1%)	31 (13.7%)	133 (58.6%)	31 (13.7%)	2.71	0.87
18	Inadequate content	31 (13.7%)	62 (27.3%)	103 (45.4%)	31 (13.7%)	2.59	0.89
19	Lack of administrative support	4 (1.8%)	84 (37%)	108 (47.6%)	31 (13.7%)	2.73	0.71
20	Negative attitude	-	63 (27.8%)	136 (59.9%)	28 (12.3%)	2.84	0.61

Table 5 shows results on the challenges of using Open Educational Resources by undergraduates at selected private universities in Ogun State, Nigeria. It was revealed that the challenges include lack of time to look for suitable resources (=3.06; std dev. =0.91); sustainability issues (=2.99; std dev. =0.69); negative attitude (=2.84; std dev. =0.62); lack of

access to computers and laptops ($=2.83$; std dev. $=0.68$); lack of human interaction between teachers and students ($=2.82$; std dev. $=0.74$); and incompatible with learning activities ($=2.80$; std dev. $=0.76$). This implies that the majority of undergraduates in selected private universities in Ogun State, Nigeria identified challenges such as lack of time to look for suitable resources, sustainability issues, and a negative attitude.

In contrast with the findings of this study, Christoforidou and Georgiadou (2022) revealed that even though educators are already presenting their work as Open Educational Resources, undergraduate students have limited knowledge about Open Educational Resources. Consequently, they lack awareness regarding its advantages for learning purposes. The researchers suggest that it is necessary to inform students about the benefits of Open Educational Resources adoption by teachers, university administration, and librarians. In addition, Akomolafe and Adegun (2014) found that Nigerian university undergraduates face some obstacles, including inconsistent electrical power, unfamiliarity with Open Educational Resources websites, and unawareness of the availability of open educational resources.

Hypotheses

H₀₁ There is no significant relationship between internet literacy skills and use of open educational resources by undergraduates in selected private universities in Ogun State, Nigeria.

Table 6: Relationship between internet literacy skills and use of open educational resources by undergraduates in selected private universities in Ogun State, Nigeria

Variables	N	Mean	St.Dev	Df	R	P	Sig
Internet literacy skills	227	77.20	7.71	227	-.002	.978	N. S
Use of OER	227	119.77	12.40				

Table 6 shows the relationship between internet literacy skills and the use of open educational resources among undergraduates at selected private universities in Ogun State, Nigeria. The table showed that internet literacy skills ($r = -.002$; $p > .978$; $N = 227$) do not have a linearly significant relationship with the use of Open Educational Resources in selected private universities in Ogun State, Nigeria. However, this situation only occurs 0.2% of the time. This implies that an increase or decrease in internet literacy skills will not affect the use of Open Educational Resources at selected private universities in Ogun State, Nigeria. Thus, the null hypothesis stating that there is no significant relationship between internet literacy skills and the use of open educational resources among undergraduates in selected private universities in Ogun State is hereby accepted.

In stark contrast to the findings of this study, Effiong and Agboke (2022) revealed that the level of Open Educational Resources utilisation among postgraduate students was significantly low in federal university libraries located in south-south Nigeria. Furthermore, the findings indicated that Internet literacy skills had a significant impact on Open Educational Resources usage among postgraduate students. In a similar instance, Ivwighrehweta and

Ejitagha (2022) showed that a vast majority of the undergraduates possessed high levels of internet literacy skills, which indicated they were adept at using various electronic resources available to them. It was also observed that the level of usage of these electronic resources was quite high, which suggested that students were taking advantage of technology to support their learning activities. Interestingly, the study did not find any significant relationship between digital literacy skills and the use of electronic resources by undergraduates. This implies that even if students possess low levels of internet literacy skills, they may still utilise Open Educational Resources effectively for academic purposes.

Conclusion and Recommendations

The study concluded that internet literacy skills do not influence the use of Open Educational Resources by undergraduates in selected private universities in Ogun State, Nigeria. This is because, despite the average level of internet literacy skills, undergraduates did not struggle with their use of Open Educational Resources. Also, the evidence seems to suggest that an increase or decrease in the level of internet literacy skills does not in any way affect the use of Open Educational Resources by undergraduates. In light of this, challenges such as lack of time to look for suitable resources, sustainability issues, and a negative attitude seem to pose a potential risk to the continuous use of Open Educational Resources for undergraduates, and this requires requisite recommendations. The study recommended that undergraduates should open themselves up to self-learning, virtual, and physical training to help them improve their overall internet literacy skills. They should also not shy away from a consistent but healthy use of the internet to help them become more proficient in terms of their internet literacy. Also, the university management should engage the undergraduates through sustainable policies on the use of Open Educational Resources which then become the culture of the institution over time. This will make the undergraduates more familiar with and also able to make use of an array of Open Educational Resources they might not have been aware of before.

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