

# Influence of User Education on Library Information Resources and Services Use among Engineering Undergraduates of Private Universities in Oyo State, Nigeria

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## Abstract

The use of information resources and services by engineering undergraduates could influence their performance. However, observations have shown that the use of information resources and services are low. Perhaps, this supposed observation might not be unrelated with user education. The study examined influence of methods of user education on library information resources and services use among engineering undergraduates of private universities in Oyo State, Nigeria. Descriptive survey research design was used and the study population comprised 342 engineering undergraduates of Ajayi Crowther and Lead City Universities in Oyo State, Nigeria. A total of 140 copies of questionnaire was used to collect data. Result revealed that, lecture method was the most 132(97.8%) approach of delivering user education. Seventy-six of the respondents indicated that, user education acquainted them with information sources and services. Result also revealed that, textbooks were the most 71(52.6%) very readily available information materials while 50(37.0%) respondents indicated that, literature search assistance was the most available information service. Moreover, results showed that; textbooks, journals, dictionary and document reproduction service were used daily. Result also showed that, there was a positive significant relationship between user education and use of library information sources and services among engineering undergraduates. It was recommended that, in order to foster effective use of information resources and services, libraries should endeavour to mandate continual user education programme for all users.

**Keywords:** User education, information resources, information services.

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## Introduction

Fundamentally, universities are institutions of higher learning established for teaching, learning and research activities. However, no well-meaning university can be said to be fulfilling its mandate without having students on whom its great intellectual treasures are being imparted, especially undergraduates who are distributed into different faculties, such as engineering among many others. These undergraduates engage in lectures, examination, continuous assessment, seminar presentation, assignment, and project writing which are the most vital part of academic activities required to satisfy the university's requisites for the award of degree in the long run. Meanwhile, for these academic activities

to be thoroughly carried out, they need to make use of appropriate information resources which may either be presented in print or electronic forms including textbooks, journals, dictionaries, encyclopedias, and so on.

In the same vein, information resources are meant to provide information services to the library's patrons. Information services include; reference and information services, circulation services, current awareness services, inter-library loan services, selective dissemination of information (SDI), user education, literature searching,e.t.c. (Librarians' Registration Council of Nigeria, 2014).Therefore, the library being the information system of the university plays vital roles in

the acquisition, processing, organisation, storage, retrieval and dissemination of information on various information resources and services for the use of its patrons. This is why Ogunmodede and Emeahara (2010) opined that, no matter how large the stock of a library is, if its services and resources are not fully utilised, such a library would be a white elephant project. Furthermore, Brown (2017) affirmed that, in most higher education institutions, a significant portion of time, effort, and resources is directed to students' library instruction and information literacy competencies that would assist them during their academic studies. As a result, one could say that, the use of library information sources and services is a function of user education.

User education, also known as library instruction, bibliographic instruction, and library orientation, consists of instructional programmes designed to teach library users how to locate the information they need quickly and effectively. According to Adeniran (2011), user education has the potential to encourage and transform library and information users from dependent learners into independent, self-directed, and lifelong learners. It enables individuals make immediate and lifelong use of information, foster independent information utilization, critical thinking and evaluation, search skills, knowledge and retrieval skills, and information literacy skills. Also, Nweze (2011) affirmed that, library instruction aims to transmit knowledge and skills needed for proper exploitation and utilisation of knowledge as well as learning resources. Furthermore, Folorunso and Njoku (2016) advocated that, university libraries should make adequate plans to ensure that a strong and lasting relationship with users, faculty members and undergraduates so as to foster daily intellectual information search for knowledge advancement. Therefore, in view of the fact that, user education could enable users acquire library skill to identify, access, retrieve and use library materials and its services, this study is interested in considering the impact that user education may have on engineering undergraduates' use of library information resources and services.

### **Statement of Problem**

Resources, in human and materials running to millions of dollars are consistently being channeled towards acquiring information resources, building gigantic library edifice fully stock with the most current information resources and services in order to meet the information

needs of users. Yet, both the information resources and services seem to be under-utilised. However, it has been observed that, students face difficulty locating appropriate information materials, and thereby accessing information resources becomes time-consuming. In other cases, even though most freshmen could not have had ample information literacy skills in their previous educational expedition, final year students could also be observed merry-go-rounding the shelves in confusion because they do not know how the information resources are organised. Some studies have equally testified that users encounter challenges using library information resources and services. To this end, this study is interested in examining user education's impact on library information resources and services use among engineering undergraduates in private universities in Oyo State.

### **Research Questions**

- i. What are the methods of delivering user education to engineering undergraduates in private universities in Oyo State, Nigeria?
- ii. What are the purposes of library user education to engineering undergraduates in private universities in Oyo State, Nigeria?
- iii. What are the information resources used by engineering undergraduates in private universities in Oyo State, Nigeria?
- iv. What are the information services used by engineering undergraduates in private universities in Oyo State, Nigeria?
- v. What is the frequency of use of information resources and services by engineering undergraduates in private universities in Oyo State, Nigeria?
- vi. What are the challenges faced by engineering undergraduates using information resources and services in private universities in Oyo State, Nigeria?

### **Research Hypotheses**

The following null hypotheses that will be tested at 0.05 level of significance in this study is;

1. There is no significant relationship between methods of user education and use of library information resources among engineering undergraduates in private universities in Oyo State, Nigeria.
2. There is no significant relationship between methods of user education and use of library information services among engineering undergraduates in private universities in Oyo State, Nigeria.

## **Literature Review**

The review of literature will be divided into four sections. The first section will focus on the user education of undergraduate students, the second section will be on use of library information resources by undergraduates, the third section will focus on use of library information services by undergraduates, and the last will centre on the relationship between user education and use of library information resources and services by undergraduates.

### **User education of undergraduate students**

According to Maduako (2013) user education is a planned process and techniques that is aimed at equipping library users with the basic skills to help them make optimal use of the information resources available in their libraries. This is further clarified by Chalukya (2015) who stated that, user education in libraries offers tools to use new information techniques in search of information embedded in book catalogues, databases, CD ROMs, the Internet, e-books and other new media demanding technical skills of ordinary citizens. Therefore, it means that user education should be developed in a way that the necessary knowledge and skills which will enable all users to make effective use of information resources and services is perfectly imparted on them. The importance of this is visibly declared by Esse and Ugwumba (2014) who asserted that there cannot be a connection between user and materials or tools without proper user education given to them, because it is the knowledge and skills acquired through it that would assist them to develop logical, creative and critical approaches. Their findings further revealed that curriculum-based use of library has the highest number of respondent of 1248(98.5%) and followed by 846(66.8%) respondents for orientation of user platform respectively. Furthermore, 778(61.4%) of the respondents are of the opinion that the use of library courses have significant effect in their understanding of the library and its uses while 1089 (85.95%) of the respondents indicated that library orientation made them gain maximally from using the library. This is an indication that the introduction of use of library course as a requirement in the curriculum of bachelor degree in Nigerian universities has really helped in the use of library and its resources. This is further supported by the findings of Mohammadi, Moghaddam and Yeganeh (2008) who revealed that (76.9%) of the respondents indicated that library instruction was very important and

aided their studies. It is evident from the study that majority of the students who received training through library instruction programme became familiar with information resources and services and used them to their benefits.

### **Use of library information resources by undergraduate students**

The study conducted by Folorunso and Njoku (2016) on the influence of library environment and user education on undergraduates' use of library at the University of Ibadan revealed that, (30%) respondents used library materials for assignments, (12%) used information resources for research work, while (20%) used references sources. In the same vein, the greater proportion of the respondents used the library at least twice in a week. Their finding also reported inadequate technological facilities, poor internet connectivity, and poor attitude of library staff as the major challenges to the use of library resources. According to Ogbuiyi and Okpe (2013), who surveyed the use of library materials and services in private universities in Nigeria. Their finding revealed that, (60%) of the respondents used textbooks, while (72%) of the respondents also used newspapers. Also, at Tezpur University in India, Saika and Gohain (2013) examined user's satisfaction on library resources and services. Their finding revealed that, 131(82.39%) used textbooks, 127(79.87%) used of online journals, 120(75.47%) used newspaper. Their finding also revealed different purposes of using library materials as 21(13.20%) and 19(11.95%) respondents used library to read newspaper/magazine and for general reading respectively. The investigation of Maina, Masese, George and Makwae (2017) on the usage and library resources at Kisii University Library, Kenya, also revealed that, 99(50.78%) respondents used library resources daily, 49(25.12%) respondents used library materials once a week, while 47(24.10%) used library resources once a month.

### **Use of library information services by undergraduate students**

The investigation of Ikolo (2015) on library services at Delta State University Library revealed that, reference services, inter-library loan services, electronic database services, photocopying services, bindery services, book lending services, CD- ROM services and indexing and abstracting services were made available to users. Also, Ogbuiyi and Okpe (2013) surveyed the use of library

materials and services in private universities in Nigeria. Their findings showed that, (59.9%) respondents indicated that, they used reference services and that, it was perfect. Also, Saika and Gohain (2013) investigated user's satisfaction on library resources and services in Tezpur University (India). Their findings revealed that, 68(42.77%) respondents used circulation services, 62(38.99%) respondents used book reservation service, 58(36.48%) respondents used online renewals of books service, 53(33.33%) respondents used OPAC/Web OPAC service.

**Relationship between user education and use of library information sources and services**

According to David-West (2020) on library user education and student's utilization of library resources in University of Port Harcourt, Rivers State, Nigeria. The finding revealed that library orientation had improved utilisation of library resources, reading culture, access and retrieval of information from the library. This is also supported by Folorunso and Njoku (2016) who investigated the influence of library environment and user education on undergraduates' use of library at the University of Ibadan, Nigeria. Their finding revealed that there was a significant relationship between user education and use of library. Therefore, one could boldly infer that the use of library by the undergraduate students is a function of adequate user education which had earlier being offered to them. Kiku and Otike (2016) also reported that, library orientation is required for effective use of library facilities, information gathering skill, knowledge and utilization of library resources and facilities.

Esse(2014) investigated the effects of library instruction on satisfaction with the use of library and its services by undergraduates in five universities in the Southern part of Nigeria. The survey revealed that, 778(61.4%), 219(17.3%) and 1089(85.95%) respondents indicated that: the use of library courses have a significant effect in their understanding of the Library and its uses; library staff guidance enabled their literature search using library subscribed databases and other search engines; library orientation gives them a better understanding on how to gain maximally from using the library. Therefore, it could be inferred that, user education had so much impact on the majority of the respondents as far as their use of information resources was concerned.

Similarly, the survey carried out by Maduako (2013) on user education and library use in college of education in Abia and Imo States, established that; there was a significant relationship between user education and library use. According to a study by Ilo and Idiegbeyanose (2011) on library user education programme for covenant university freshmen, finding revealed that, 735 (93.9%) respondents indicated that, user education equipped them with good search skills. Their finding also revealed that, 647(82.4%) respondents were equipped with information on the available information resources and their formats while, 588(75.1%) claimed exposition to various library services. Furthermore, the finding of Suleiman (2012) on user education programmes in academic libraries at International Islamic University Malaysia, revealed that, (96%) undergraduates affirmed that user education programme assisted them in the use of the OPAC, library resources and services and location of appropriate information resources. Aderibigbe and Ajiboye (2013) investigated user education programme as determinant of electronic information resources usage in Nimbe Adedipe University Library, Nigeria. Their finding revealed that, the majority 123(57%) of the respondents indicated that, the librarians working at the e-library and serials sections provided guidance which enabled them in the use of e-resources.

**Methodology**

The descriptive survey research design was used for this study. The engineering undergraduates of private universities in Oyo State constituted the population of the study. However, Ajayi Crowther University and Lead City University were the only private universities undertaking engineering programmes as at the time of carrying out this study and collecting data. According to the data collected from the institutions, there were 342 engineering students distributed into four different departments. A total of 140 questionnaire was administered for data collection. Data was analysed with the use of the Statistical Package for the Social Sciences (SPSS) and presented in form of descriptive statistics of frequency counts, percentages and correlation analysis.

**Table 1: Frequency Distribution of Institutions of the Respondents**

Institutions of the Respondents	Frequency	Percentage
Ajayi Crowther University	189	55.3

Lead City University	153	44.7
Total	342	100

## RESULTS AND DISCUSSION

A total of 140 copies of the questionnaire were administered to engineering undergraduates of Ajayi Crowther and Lead City Universities, Oyo State, Nigeria, out of which 135 copies were returned and found useful for analysis giving a response rate of 90%.

**Table 2: Frequency Distribution of the Department of the Respondents of Engineering Undergraduates of Ajayi Crowther University and Lead City University.**

Department	Frequency	Percentage
Civil Engineering	18	13.3
Computer Engineering	41	30.4
Electrical Electronics	41	30.4
Mechanical Engineering	35	25.9
Total	135	100

Table 2 shows the frequency distribution of respondents according to their departments. The result shows that 18(13.3%) respondents belong to Civil engineering, 41(30.4%) respondents are from Computer Engineering, 41(30.4%) belongs to Electrical and Electronics, while 35(25.9%) are from Mechanical Engineering. This implied that students from the Computer Engineering and Electrical Engineering participated more in the study.

### Demographic characteristics of respondents

Table 3 presents results on the demographic information of the engineering undergraduates. The result of their gender distribution shows that 114(84.4%) respondents are Male while 21(15.6%) are female. This implied that male students participated more in the study. The result

**Table 4: Methods of Delivering User Education**

Methods of Delivering User Education	YES	NO	N	MEAN $\bar{x}$	SD
Lecture method	132	3	135	1.98	0.14
Workshop	100	35	135	1.74	0.44
Demonstration	116	19	135	1.86	0.34
Conduct of book fair	86	49	135	1.64	0.48

also shows that 75(55.6%) are between the age of 16-20 years, 57(42.2%) are between the age of 21-25 years, 2(1.5%) are between the age of 26-30 years while 1(0.7%) are above 30 years. This implied that students of age 16-20 years participated more in the study. The result shows that 61(45.2%) respondents are in 200 level, 41(30.4%) are in 100 level while only 33(24.4%) respondents are in 300 level. This implied that students in 200 level participated more in the study.

**Table 3: Demographic characteristics of the respondents**

Demographic variables	Frequency	Percentage (%)
<b>Gender</b>		
Male	114	84.4
Female	21	15.6
<b>Age</b>		
16-20	75	55.6
21-25	57	42.2
26-30	2	1.5
>30	1	0.7
<b>Level</b>		
100	41	30.4
200	61	45.2
300	33	24.4
<b>Religion</b>		
Christianity	111	82.2
Islam	18	13.3
African Traditional Religion	6	4.4

N=135

**Research question one:** What are the methods of delivering user education to engineering undergraduates in private universities in Oyo State, Nigeria?

Display of new arrival	82	53	135	1.61	0.49
Library handbook	93	42	135	1.70	0.47
Orientation of new student	114	19	135	1.88	0.40
Staff guidance	104	31	135	1.79	0.47
Guided library tour	97	38	135	1.74	0.50
One-to-one library use instruction	88	47	135	1.73	0.63
<b>Grand <math>\bar{x}</math></b>				<b>1.77</b>	<b>0.44</b>

Table 4 shows the result of the findings, the mean and the standard deviation shows the methods used in delivering user education to the engineering undergraduates in private universities in Oyo State. This was shown with the total average mean score of (Grand  $\bar{x}$  = 1.77, SD=0.44).The results implied that, even though, all the methods listed are applicable, lecture method is the most applicable method of teaching user education to the engineering undergraduates in the surveyed private universities in Oyo State. This is in tandem with the

finding of(Gbuushi and Ubwa,2018; Bashorun, Aboderin and Wasiu,2020; Ejiroghene, 2020)who affirmed that, lecture, use of library course, library orientation and independent assignment were the most effective methods of user education.

**Research question two:** What are the purposes of library user education to engineering undergraduates in private universities in Oyo State, Nigeria?

**Table 5: Purpose of User Education**

<b>Purpose of User Education</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>	<b>N</b>	<b>MEAN</b>	<b>SD</b>
To acquaint students with information sources and services	76	53	6	0	135	3.52	0.58
To provide information search skills	71	60	4	0	135	3.50	0.55
To encourage independent information search skills among students	65	58	12	0	135	3.39	0.64
To prepare students to make immediate and lifelong use of information	55	64	14	1	135	3.29	0.68
To develop in student the ability to distinguish the value of books for critical decision	50	74	11	0	135	3.29	0.60
To provide information literacy to students	68	51	16	0	135	3.39	0.69
To provide students with search knowledge and retrieval skills	63	58	10	4	135	3.34	0.75
To enable students make efficient use of wide range of resources across disciplines	52	70	13	4	135	3.30	0.64
To acquaint students with rules and regulations governing the use of library and its information sources and services	57	67	6	4	135	3.33	0.71
To enable students have quick access to sources of meeting their information needs	59	56	12	2	135	3.41	0.77
<b>Grand <math>\bar{x}</math></b>						<b>3.38</b>	<b>0.66</b>

Table 5 shows the result of the findings, the mean and the standard deviation shows the purposes for user education in the two universities. This was shown with the total average mean score of (Grand  $\bar{x}$  = 3.38, SD=0.66).The results implied that the respondents agreed to all the purposes provided for teaching user education. Whereas,

Gbuushiand Ubwa(2018)confirmed that, user education served the purposes of improving ability to retrieve needed information and motivation to use the library in their findings.

**Research question three:** What are the information resources used by engineering undergraduates in private universities in Oyo State, Nigeria?

**Table 6: Information Resources**

Information Resources	VRA	RA	A	NRA	NA	N	MEAN	SD
Textbooks	71	34	23	6	1	135	4.24	0.94
Journals	44	48	33	8	2	135	3.92	0.97
Dictionary	51	39	32	10	3	135	3.93	1.05
Encyclopedias	42	42	32	13	6	135	3.75	1.13
Indexes and Abstract	42	30	42	17	4	135	3.66	1.13
Yearbooks, Handbooks	37	34	36	25	3	135	3.57	1.14
Map	26	34	41	26	8	135	3.33	1.16
Newspapers and magazines	40	36	36	20	3	135	3.67	1.12
Thesis and dissertation	20	29	49	28	9	135	3.17	1.12
CD-ROM data bases	24	25	45	25	16	135	3.12	1.24
Online data bases	37	33	41	18	6	135	3.57	1.15
<b>Grand <math>\bar{x}</math></b>							<b>3.63</b>	<b>1.00</b>

Table 6 shows the result that, all the information resources listed were used by the engineering undergraduates of private universities in Oyo State. This was shown with the total average mean score of (Grand  $\bar{x}$ =3.63, SD=1.00).The results implied that the respondents have access to all the listed information resources in their library. This finding is corroborated by the study of Onwukanjo and Joseph (2017) who reported

that, all kinds of information materials including, journals and serial materials, textbooks and electronic materials were made available at Federal University of Technology, Minna.

**Research question four:** What are the information services used by engineering undergraduates in private universities in Oyo State, Nigeria?

**Table 7: Information Services**

Information Services	VRA	RA	A	NRA	NA	N	MEAN	SD
Literature search assistance	32	37	50	7	9	135	3.56	1.11
Selective dissemination of information	22	47	49	11	6	135	3.50	1.00
Reference services	42	31	42	16	4	135	3.67	1.12
Referral services	24	35	44	24	8	135	3.32	1.13
Document reproduction (photocopy) services	42	33	43	12	5	135	3.70	1.11
Charging (loaning) of information materials	31	38	41	13	12	135	3.47	1.20
Current awareness services	28	32	40	25	10	135	3.32	1.20
Bindery services	29	29	40	25	12	135	3.28	1.24
Lamination services	24	34	37	24	16	135	3.19	1.26
Information delivery service	30	32	34	29	13	135	3.30	1.27
<b>Grand <math>\bar{x}</math></b>							<b>3.43</b>	<b>1.16</b>

Table 7 shows the result that, all the information services listed were used by the engineering undergraduates of Ajayi Crowther University and Lead City University. This was shown with the total average mean score of (Grand  $\bar{x}$  = 3.43, SD=1.16).The results implied that the respondents have access to all the listed information services in their libraries. Contrary to the finding of this study, Onwukanjo and Joseph (2017) reported that,

printing, reprography and current awareness services were not available at Federal University of Technology, Minna.

**Research question five:** What is the frequency of use of information resources and services by engineering undergraduates in private universities in Oyo State, Nigeria?

**Table 8: Frequency of use of information resources and services**

Frequency of use of information resources and services	Daily	Weekly	Monthly	Occasional ly	Never	N	MEAN	SD
Textbooks	41	41	14	30	9	135	3.56	1.30
Journals	41	19	18	34	23	135	3.16	1.51
Dictionary	42	23	13	30	27	135	3.17	1.55
Encyclopedias	34	19	17	33	32	135	2.93	1.53
Indexes and Abstract	22	23	21	31	38	135	2.70	1.45
Yearbooks, Handbooks	16	26	14	41	38	135	2.56	1.38
Map	21	21	13	35	45	135	2.54	1.47
Newspapers and magazines	28	22	15	36	34	135	2.81	1.49
Thesis and dissertation	26	24	13	28	44	135	2.70	1.54
CD-ROM data bases	25	18	14	36	42	135	2.61	1.50
Online data bases	32	34	13	30	26	135	3.12	1.48
Literature search assistance	22	25	16	44	28	135	2.77	1.39
Selective dissemination of information	27	26	17	43	22	135	2.95	1.40
Reference services	27	21	28	39	20	135	2.97	1.36
Referral services	23	25	19	42	26	135	2.83	1.39
Document reproduction(photocopy) services	30	29	18	41	17	135	3.10	1.38
Charging (loaning) of information materials	26	27	28	34	20	135	3.04	1.35
Current awareness services	23	28	19	37	28	135	2.86	1.41
Bindery services	27	24	19	35	30	135	2.87	1.45
Lamination services	26	25	21	31	32	135	2.87	1.46
Information delivery service	25	23	20	31	36	135	2.78	1.47
<b>Grand <math>\bar{x}</math></b>							<b>2.90</b>	<b>1.44</b>

Table 8 shows the result of the frequency of use of information resources and services by engineering undergraduates in private universities. This was shown with the total average mean score of (Grand  $\bar{x}$  = 2.90,

SD=1.44). It implied that majority of the respondents used information sources and services monthly. This is agreed by Ejiroghene (2020) who reported that, reference information and wireless internet connectivity services were used daily and weekly.



**Research question six:** What are the challenges faced by engineering undergraduates using information sources and services in private universities in Oyo State, Nigeria?

**Table 9: Challenges to the use of information sources and services**

Challenges to the use of Cloud Computing	SA	A	D	SD	N	MEAN	SD
Difficulty in locating materials from the shelves	35	35	36	29	135	2.56	1.09
Poor lighting due to irregular power supply	27	42	31	35	135	2.48	1.09
Low awareness of the information sources and services	29	30	53	23	135	2.48	1.01
Library information sources are outdated and not current	26	33	48	28	135	2.42	1.02
Inadequate technological facilities to use for electronic sources	33	28	42	32	135	2.46	1.10
Poor attitudes of library staff to users	32	40	34	29	135	2.56	1.07
Inadequate information resources in the library	21	33	51	30	135	2.34	1.00
Inadequate reading space in the library	27	18	48	42	135	2.22	1.09
Lack of professionalism among the library staff	27	35	41	32	135	2.42	1.06
Poor network/internet connectivity to access electronic database	40	39	35	21	135	2.73	1.06
Poor customer relations among library staff	33	41	36	25	135	2.61	1.05
<b>Grand <math>\bar{x}</math></b>						2.48	1.06

Table 9 shows the result on the challenges to the use of information sources and services. This was shown with the total average mean score of ( $\bar{x} = 2.48, SD=1.06$ ). The results implied that, the engineering undergraduates encountered some challenges such as; difficulty in locating materials from the shelves, inadequate technological facilities to use electronic sources, poor attitudes of library staff to users and poor customer relations among library staff. This result is sustained by the findings of Ejiroghene (2020) whose study confirmed that, insufficient technological equipment and lacking network/ internet connectivity were the major challenges to library use. The results also revealed the areas that require serious attention by the university management.

**Testing of hypothesis**

**Table10:Relationship between methods of user education and use of library information resources by engineering undergraduates in private universities**

Variables	N	Means	SD	r.-value	P	Remark
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**Hypothesis 1:** There is no significant relationship between methods of user education and use of library information resources by engineering undergraduates in private universities in Oyo State, Nigeria.

Table10 shows positive correlation between use of library information sources and methods of user education among engineering undergraduates. There is a positive significant relationship between the variables as indicated in the table below as ( $r=0.288, P<0.05$ ). Hence, null hypothesis one is rejected. This indicates that, there is significant relationship between use of library information sources and methods of user education among engineering undergraduates of private universities in Oyo State. The finding is supported by Okeke and Nkechi (2018) who reported that, user education influenced the use of reference information materials.

Methods of user education	135	17.66	2.25	0.288**	0.001	Sig.
Use of library information sources	135	31.85	13.04			

**Hypothesis 2:** There is no significant relationship between methods of user education and use of library information services by engineering undergraduates in private universities in Oyo State, Nigeria.

Table 11 shows that, there is no correlation between use of library information services and methods of user education among engineering undergraduates. There is no significant relationship between the variables as indicated in the table below as ( $r=0.158$ ,  $P>0.05$ ). Hence,

**Table 11: Relationship between methods of user education and use of library information services by engineering undergraduates in private universities**

Variables	N	Means	SD	r.-value	P	Remark
Methods of user education	135	17.66	2.25	0.158**	0.068	Not Sig.
Use of library information services	135	29.03	11.40			

### Conclusion

This study has revealed that, utilisation of information resources and services is a function of effective methods of user education among engineering undergraduates in private universities in Oyo State. Furthermore, empirical evidence in experimental studies revealed the nexus between methods of user education and the use of library information resources and services. However, the study also discovered that, despite the application of different methods of user education in order to facilitate library use, certain challenges such as poor network/internet connectivity to access electronic database; difficulty in locating materials from the shelves; inadequate technological facilities to use electronic sources; poor lighting; poor attitudes and poor customer relations among library staff to users remained the major constraints to effective utilisation of information resources and services.

### Recommendations

Following the discoveries of this study, these recommendations are made.

- i. Being the most applicable and effective methods of user education, the management of universities must as a matter of priority concentrate more on the use of library course, lecture and library orientation.

null hypothesis two is accepted. This indicates that, there is no significant relationship between use of library information services and methods of user education among engineering undergraduates of private universities in Oyo State. Similarly, OduandEdam-Agbor(2018) reported that, user education facilitated effective use of information resources and services among undergraduates at the University of Calabar.

- ii. Therefore, in order to improve the use of library information resources and services by the respondents, university and library management must also ensure that, user education is made compulsory for all students.

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