Enhancing Learners' Engagement and Performance in Learning through E-Resources and Services: National Open University of Nigeria Students as Beneficiaries

Améliorer l'engagement et la performance des apprenants dans l'apprentissage à travers les ressources et les services électroniques : les étudiants de l'Université nationale ouverte du Nigeria en tant que bénéficiaires

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Abstract

Enhancement of performance on learning among learners has been on the increase due to digital information and technologies provided by libraries, because of its backbone in academic pursuit. This study investigates enhancing learners' engagement and performance in learning through e-resources and services. The study was guided by four research questions with two hypotheses, which examined the availability of e-resources, the frequency of usage, the influence of usage and the factor undermining the usage of electronic resources. The findings from the study revealed that there are some e-resources available for the users'; there are users that are making use of the electronic resources occasionally and daily, while some don't use e-resources at all. The study also revealed that the use of electronic resources influenced the users' class tests, assignments, seminar presentations and more, while there was also evidence of non-assistance from the use of e-resources in some students' learning pursuits. The study equally revealed some of the factors undermining the use of e-resources including inadequate power supply, poor internet connectivity, lack of technology competence and limited access to computer terminals, etc.

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Résumé

L'amélioration des performances d'apprentissage chez les apprenants a en raison de l'information numérique et des technologies fournies par les bibliothèques, en raison de leur épine dorsale dans la poursuite académique. Cette étude porte sur l'amélioration de l'engagement et de la performance des apprenants dans l'apprentissage grâce aux ressources et aux services électroniques. L'étude a été guidée par quatre questions de recherche reposant sur deux hypothèses, qui ont examiné la disponibilité des ressources électroniques, la fréquence d'utilisation, l'influence de l'utilisation et le facteur qui nuit à l'utilisation des ressources électroniques. Les résultats de l'étude ont révélé qu'il existe des ressources électroniques disponibles pour les utilisateurs ; Certains utilisateurs utilisent les ressources électroniques de temps en temps et quotidiennement, tandis que d'autres n'utilisent pas du tout les ressources électroniques. L'étude a également révélé que l'utilisation des ressources électroniques avait une influence sur l'examen de classe, le devoir, la présentation du séminaire et plus encore, tandis qu'il y avait également des preuves de non-assistance de l'utilisation des ressources électroniques dans la poursuite de l'apprentissage de certains étudiants. L'étude a également révélé certains des facteurs qui entravent l'utilisation des ressources électroniques, notamment l'approvisionnement en électricité inadéquat, la mauvaise connectivité Internet, le manque de compétences technologiques et l'accès limité aux terminaux informatiques, etc.

Mots-clés *:*   *A*mélioration, engagement des apprenants, performance d'apprentissage, ressources électroniques et services

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Introduction

The learners' enhancement performance ought to be on the increase
due to information from the web, as a result of digital technology and
services. Libraries have been at the forefront in encouraging and
providing both e-resources and services, to enable patrons to have
access to their needed resources with ease. This is portrayed in the
findings of Abubakar and Adetimirin (2016), who opined that e-
resources are becoming increasingly available in university libraries
everywhere, facilitating access, and use of current and relevant
information literature for academic studies and research. An
information resource is a backbone of any academic institution as well
as information centres for academic pursuit and research activities.
That is why every institution must have a good functional library, for
the benefit of the students. National Open University of Nigeria
(NOUN) students are not exempted from this. NOUN students are in
better need of these resources, especially online-based, because of the
nature of their programmes, learning at a distance. Their study centres
are spread across the country, and having access to e-resources from
their different locations will be of advantage for the usability of e-
resources in their academic work. The university currently has one
hundred and eight (108) study centres which are located across the
country, in the state capitals; major towns in all the six geo-political
zones (NOUN, 2022).

Dissemination, accessibility, retrieval and use of electronic information
resources are vital for all aspects of academic pursuit, depending on the
age of learners, which will enable and enhance their use of electronic
devices in the retrieval of information. An adult age with information
and communication technology skills (ICT) can easily navigate the
web to surf for information more than an underaged learners in this
digital age. Yahaya, 2024 inferred that in today's technology age,
individuals started to live most of their lives in an electronic
environment, which enables a majority of them such as coursemates,
public institutions, social platforms, private companies and educational
institutions to start communicating online through webinars,
conferences, seminars and workshops, among others. It provides an
opportunity for self-discovery and individual learning with ease. The

age also assists them in managing the risks in digital handling with ultimate success. Electronic resources on their own, facilitate self-learning, and easy availability of information and research materials, without any location challenge or barrier, which provides the facility to develop self and lifelong learning as well as the self-dependence of using e-resources without any hitch (Sahu and Singh, 2020).

Information Provision in the National Open University of Nigeria

Information provision for distance learners is quite different from that of conventional university learners. Information provision services are one of the vital learners' support activities in distance education programmes and it is one of the key indicators of quality assurance, especially in academic activities. Alijani and Khasseh (2015) inferred that access to adequate information resources is essential to the attainment of superior academic skills and competence. More so, distance learning students need to use e-reference resources and services, including e-books for their academic pursuit and lifelong learning. Such provision of e-resources and links assist users to have access to their needed information. Dsouza (2016) added that such learning actively involves students, teachers, and teacher-librarians in the effective use of a wide range of print, non-print and human resources, which fosters the development of individual students by accommodating their varied interests, experiences, learning styles, needs and ability levels. Students who use a wide range of e-resources in various media for learning have the opportunity to approach an issue or topic of study in different ways which allow for a range of learning styles and access to the research topic accordingly.

NOUN as an institution has a unique library, digital library with electronic information, resources and services for the benefit of their students who learn at a distance. These students have access to the library resources from the library database in their various study centres with the aid of internet facilities for their academic work with ease. Gakibayo, Ikoja-Odongo**,** and Okello-Obura (2013) opined that the emergence of electronic information resources has tremendously transformed information handling in NOUN library; thereby aiding the

students' and researchers' easy access and retrieval of information for their academic work without many hitches.

Electronic Resources available in NOUN Library

Resources in NOUN libraries, both in the headquartres library and the study centre libraries should be of greater benefit to learners that have an advantage of them, both in physical and digital format for research and study. The findings of Ajayi; Shorunke; and Aboyade (2014) show that electronic resources can be a bibliography of full-text databases that allows patrons to search for relevant articles in the different subject areas, which include electronic journals, online databases (AGORA, JSTOR, EBSCOHOST, AJOL, HINARI), electronic books, locally loaded in database, website, CD-ROM, electronic text, e-abstracting & e-indexing, e-news, e-images, e-music etc., that assists mainly for academic and research purposes.

The National Open University of Nigeria library makes available the library database (KOHA), where all the resources of the library have been conveniently stored and made accessible for learners from any location and centre they may be. Also, some of the subscribed and updated e-databases with links are as follows:

E-Databases in NOUN Library

S/N	E-DATABASES	LINKS
1.	RESEARCH4LIFE – AGORA	https://login.research4life.org/tacsgr1portal_research4life_org/content/agora
2.	HINARI	https://login.research4ife.org/tacsgr1portal_research4life_org/content/hinari
3.	EBSCOhost	https://research.ebscohost.com/
4.	JSTOR	http://www.jstor.org/
5.	Scopus	https://www.scopus.com/

6.	SCIENCEDI RECT RESEARCH4 LIFE	https://www.sciencedirect.com/ https://login.research4life.org/tecsgr1ardiife-org/
7.	LAWPAVILI ONPLUS	http://www.lawpavilionplus.com/

Information and Communication Technologies have been employed in information services due to their ability to provide high-speed and efficient access to assist libraries to acquire new roles and make use of various technologies such as mobile technology and social networks to disseminate information to the proper user (Shonhe, 2017). Furthermore, the findings of Nchee (2017) revealed that the dissemination of information creates awareness about new technology and resources, to make sure that the intended audience understands the information or the technology and how to use it so that it can be of benefit to them.

Statement of the Problem

In the world of today, there are numerous scholarly publications on the internet, which may interest researchers, teachers and students to take advantage of in enhancing their learning and research activities. NOUN library subscribes to databases with links to provide access to e-resources for the benefit of their students, irrespective of their location. The e-resources are accessible on the internet and stand-alone systems at the e-libraries, located in all the centre's libraries. Access codes to the subscribed e-resources are given to every registered student/ library user to access downloaded e-resources (e-books and e-journals, etc.) on stand-alone computer systems, to ease accessibility to the users.

Despite these, observation shows that regardless of the effort made, most of the learners don't visit the e-library, or do not know that such resources exist in the headquartres library and the study centres. The available records of utilisation show that some of the e-resources are unacceptably under-utilised. This study therefore seeks to investigate how to enhance learners' engagement and performance in learning

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through information e-resources and services among the National Open
University of Nigeria's students.

Objectives of the Study

The following objectives are stated for the study:
1. Identify the electronic resources available in NOUN library
2. State the frequency of usage of those electronic resources by
    NOUN students.
3. Determine the influence of those electronic resources on
    NOUN students' learning.
4. Examine the challenges undermining the effective use of
    electronic resources by NOUN students.

Research Questions

The following research questions were postulated for the study:
1. What are the electronic resources available in NOUN library?
2. What are the frequencies of usage of those electronic resources
    by NOUN students?
3. What are the influences of usage of those electronic resources
    on NOUN students?
4. What are the challenges undermining the effective use of
    electronic resources by NOUN students?

Research Hypothesis

The following research hypothesis will be tested.

$H0_1$ There is no significant difference in the mean rating of students on
the extent of use of e-resources and services on learning in South-
east and South-south of NOUN.

$H0_2$ There is no significant difference in the mean responses of NOUN
students by age on the influences of usage of electronic resources
in NOUN.

Literature Review

Available electronic databases and resources in libraries

As electronic resources are increasingly available in libraries and information centres, their purpose and importance cannot be overemphasised. The findings of Elbasyouny (2021) suggest that library management should try to find more educational electronic resources for successful online learning and to make sure that students can access different types of resources in their respective disciplines, using their own devices such as mobile phones or laptops. Considering the period of COVID-19 pandemic, most institutions and libraries resorted to online teaching and dissemination of e-resources to the students. Method of learning and provision of instruction changed, as well as the role of instructors, specifically through distance learning, due to the ugly experience of the COVID-19 Pandemic, which served as an eye opener to institutions in engaging more on online instructions, such as using ZOOM facilitations and other video conferencing platforms, among others (Almoslamani, 2018). Information communication technology has a vital role in libraries for the dissemination of electronic resources to reach the end user, giving the retrieval and user of those resources an edge over of print resources.

According to Omeluzor, Akibu and Akinwoye (2016), the use of ICT and its facilities in libraries made way for the use of the Internet, automation systems and provision of electronic information in libraries. This in turn has paved the way for a growing demand for the use of e-resources among patrons because library resources serve an important purpose in learning, teaching and research in any academic institution of higher learning, most especially distance learning institutions. These e-resources available in libraries are such as e-books and e-journals, e-dictionaries, and e-magazines among others which are accessible via CD-ROMs, e-database and on the Internet. Kenchakkanavar, (2014) indicated that the invention of technology has made libraries and information centres add more services to their activities and collections, which are e-resources and e-services that can be accessed even from remote areas using technology. According to Khan, (2016), he opines that technology has exposed libraries to new

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opposing challenges, enabling them to provide better services to their users with diverse needs, of numerous e-resources. Alzahrani, (2017) also argued that the importance of e-resources is of great benefit, changing and improving the attitude of students that encourages collaboration and exchange of ideas among them for effective learning.

Frequency of usage of electronic resources by library users

The finding of Maitato (2020) revealed that students use e-resources daily, as long as the internet is available and can be connected to the university. The frequency of usage depends on the individual student and the actual assignment he/she is using it for. Most often electronic resources provided in the library are not utilised by the users. Some feel reluctant to go to the library, for them, or they don't know about their existence, thereby not utilising them. According to the author, It is mostly believed that reliable library-licensed electronic resources are underutilised or at least not well utilised, while he later suggested that different training sessions and awareness programmes will be regularly embarked upon to sensitise students and boost electronic information resource utilisation in their respective centre libraries (Okunlola, 2021). Hence, there is very need to boost the utilisation of these resources for the library to justify their provision by the library management.

Influence of electronic resources on learners' learning

Given Okorie, Nwokocha and Ibenne's (2018) findings a greater number of the respondents confirmed that the use of electronic information resources influences their academic performance in seminar writing, assignments and paper presentations positively. They also observed that electronic books (e-books) were found to be mostly accessed by students for their academic pursuits. Though the availability of electronic resources in libraries does not mean its usage because the resources may be available but access to them may pose a lot of problems. There must be strategies to promote accessibility and usage of those electronic information resources in all formats and forms because resources in the library are out of place if the accessibility to them is not provided. Okorie, Nwokocha and Ibenne

(2018) argued that to properly access and utilise the ever-flowing range of electronic information resources, students, scholars and users must acquire and practice with needed skills necessary to retrieve the exploited resources and use them. Also, Ruzegea and Msonde (2021) opined that equipping academic libraries with quality information resources in higher learning institutions is of vital importance by subscribing to e-resources databases to enhance the availability of e-resources to users and be observant that those e-resources are judiciously utilised by students, and researchers of such institutions because of their relevance, to promote their academic achievement. Ukwetang et al. (2021) argued that students not having access to internet resources, which would assist them to improve on their learning abilities and academic performance could hamper their learning generally in a negative way. On the other hand, there was a suggestion that the issue of poor academic performance among undergraduates could be that they are not suited for quality education with needed e-resources and blended learning materials through the web, especially in this era of digitisation to enhance their learning academically (Ogunbodede and Oribhabor, 2022). More so, Abdurahimovna (2020) stressed that it is paramount to achieve the effectiveness of learning through the use of technology and e-resources in the education system, to facilitate and strengthen learning activities and participation among students.

Factors militating against the effective use of electronic resources

Ankrah and Atuase (2018) suggested that poor internet connection and frequent power outages in the library could be challenging factors for effective utilisation of e-resources by users of the library. Furthermore, Abdulrahman and Onuoha, (2019) examined that challenges associated with the access of e-resources by students in libraries could be due to the sluggish nature of internet connectivity and difficulty in navigating the web in finding proper information. Omeluzor, Akibu and Akinwoye (2016), stated that the usage of e-resources in academic libraries and information centres is affected by some pending challenges which are not insurmountable, which include lack of awareness, lack of training, unreliable Internet connection and insufficient e-resources in some field of study. Ajayi, Shorunke, and

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Aboyade (2014) findings show that most of the students have inadequate skills in how to use e-resources, also they don't know of the existence of electronic resources (ER) in their library. They always believe that there are inadequate facilities for using e-resources in their library.

Methodology

The descriptive survey design was used for this study. The population for this study was 348 undergraduate students of the Department of Library and Information Science, NOUN, comprising 168 (200 level) students, 111 (300 level) students and 69 (400 level) students, making a total of 348. The researcher decided to use the library students (learners) to investigate the usability of available electronic resources in NOUN libraries. Data were collected through a structured questionnaire. The questionnaire was divided into two sections (A and B), section A sought demographic information on the personal details of the respondents, while section B was made up of twenty (20) important questions on the following: availability of ER in NOUN library, frequency of usage of ER; influence of usage of ER and factors undermining the usage of ER. To ensure the validity of the instrument, the initial draft was validated by two experts, who are Professors in the field of Library and Information Science. The reliability of the instrument was trial-tested on a few learners from the University of Abuja, with a reliability coefficient of 0.84. The questionnaire was structured reflecting a 4-point Likert scale; respondents were allowed to indicate their opinion as strongly agreed (SA), agreed (A), disagreed (D) and strongly disagreed (SD). 348 questionnaires were distributed, and 316 (91%) of them were duly completed and returned for analysis. The researcher used the frequency counts, percentage, mean and standard deviation to analyse the data for the study while T-test and ANOVA were used to test the hypotheses respectively.

Analysis of Results

The bio-data analyses of the completed questionnaires are shown below.

Table 1: Gender Profile

Sex	Frequency	Percentage
Male	169	53.5
Female	147	46.5
Total	**316**	**100**

Source: Field Survey 2023

Information from Table 1 shows that 169 (53.5%) of the respondents are male while 147(46.5%) are female.

Table 2: Age Profile

Age	Frequency	Percentage
Below 25 years	52	16.4
25-35 years	128	40.5
36-45 years	78	24.7
Above 45 years	58	18.4
	316	**100**

Source: Field Survey 2023

Table 2 shows that 52(16.4%) of the respondents were below 25 years old, 128 (40.5%) of the respondents were between 25 to 35 years old, 78 (24.7%) were 36 to 45 years old and 58 (18.4%) of the respondents were above 45 years of age.

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Table 3: the types of electronic resources available in NOUN library

	Available	Not Available	Decision
Internet services	267 (84.5)	49 (15.5)	Available
E-Books	293 (92.7)	23 (7.3)	Available
E-Journals	278 (88.0)	38 (12.0)	Available
E-mail services	213 (67.4)	103 (32.6)	Available
E- Conference proceedings	93 (29.4)	223 (70.6)	Not Available

Table 3 presents the types of electronic resources available in NOUN library. The table shows that all the above-mentioned types of electronic resources are available in the NOUN library except for E-Conference proceedings which the majority 223 (70.6%) of the respondents indicate that they are not available in the library.

Table 4: Mean Ratings and Standard Deviations of Responses of students of NOUN on the frequency of usage of electronic resources in NOUN Library.

	Rarely	Once in two days	Occasionally	Daily	Mean	Std. Deviation
Internet services	5 (1.6)	9 (2.8)	209 (66.1)	93 (29.4)	3.23	0.58
E-Books	4 (1.3)	23 (7.3)	201 (63.6)	88 (27.8)	3.18	0.61
E-Journals	94 (29.7)	17 (5.4)	156 (49.4)	49 (15.5)	2.51	1.08
E-mail services	71 (22.5)	47 (14.9)	125 (39.6)	73 (23.1)	2.63	1.07
E- Conference proceedings	178 (56.3)	39 (12.3)	76 (24.1)	23 (7.3)	1.82	1.03
					2.67	0.87

Table 4 presents the frequency of usage of electronic resources in NOUN Library. As shown in the table most of the types of electronic

resources in the Library are occasionally used by NOUN students; Internet services 209 (66.1%), e-books 201 (63.6%), E-journals 156(49.4%), E-mail services 125 (39.6%) except for e-conference proceedings which are rarely used 178 (56.3%).

Hypothesis 1
H01: T-test analysis of the significant difference in the mean ratings of learners on the extent of usage of e-resources and services on learning in South-east and South-south of NOUN.

	N	‾X	SD	df	t_cal	Sig.(2tailed) P	Decision
South East	125	3.4800	.43180	314	25.972	0.000	No Significant
South-South	191	2.1487	.45432				

N = Population±X = Mean±SD = Standard Deviations±df = degree of freedom±p = probability level of significance±t-cal. = calculated value of t.

H01 shows the independent t-test analysis of the mean differences in the opinions of the gender of students of NOUN on frequencies of usage of electronic resources in NOUN Library. The results revealed that there was a significant difference± (t = 25.927±P > 0.00). Therefore the null hypothesis was rejected.

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Table 5: Mean and Standard Deviation of influence of usage of electronic resources by NOUN students in NOUN Library

	SD	D	A	SA	Mean	Std. Dev.	Decision
Class test	13 (4.1)	36 (11.4)	114 (36.1)	153 (48.4)	3.29	0.83	A
Seminar writing/Presentation	7 (2.2)	42 (13.3)	142 (44.9)	125 (39.6)	3.22	0.76	A
Class Assignments	5 (1.6)	12 (3.8)	98 (31.0)	201 (63.6)	3.57	0.65	SA
Reading for examination	4 (1.3)	13 (4.1)	120 (38.0)	179 (56.6)	3.50	0.64	SA
Use for general academic work	68 (21.5)	109 (34.5)	71 (22.5)	68 (21.5)	2.44	1.05	D
grand mean					3.20	0.78	A

The data in Table 5 above shows the mean responses of the respondents on the influence of the usage of electronic resources by NOUN students in the NOUN Library. The grand mean scores (3.20±0.78) of the responses indicate that electronic resources influence NOUN students. The table also shows that the respondents agree that electronic resources influence NOUN students in class tests (3.29±0.83), seminar writing/presentation (3.22±0.76), class assignments (3.57±0.65), and reading for examination (3.50±0.64), aside from use for general academic work (2.44±1.05), where many of the respondents did not agree electronic resources influence them.

Hypothesis 2
H02: ANOVA Analysis of Difference in the mean responses of NOUN students by age on the influences of usage of electronic resources in NOUN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	146.661	3	48.887	745.582	.000
Within Groups	20.457	312	.066		
Total	167.118	315			

The result of hypothesis 2 above shows the ANOVA analysis of the difference in the mean responses NOUN students by age on the influences of usage of electronic resources in NOUN Library. The analysis as contained in the table shows that there is a significant difference in the mean responses of undergraduates based on field of study in all the items. This is because the probability value (sig) of 0.00 is less than 0.05 level of significance ($p<0.05$). Hence the null hypothesis is rejected.

Table 6: Mean and Standard Deviation of Challenges Undermining the effective use of Electronic Resources in NOUN Library

	SD	D	A	SA	Mean	Std. Dev.	Decision
Inadequate power supply	6 (1.9)	14 (4.4)	97 (30.7)	199 (63.0)	3.55	0.67	SA
Poor internet connectivity	12 (3.8)	16 (5.1)	132 (41.8)	156 (49.4)	3.37	0.75	A
Lack of technology competence	85 (26.9)	103 (32.6)	53 (16.8)	75 (23.7)	2.37	1.12	A
Limited access to a computer terminal	15 (4.7)	37 (11.7)	97 (30.7)	167 (52.8)	3.32	0.86	A
Time-consuming	124 (39.2)	117 (37.0)	34 (10.8)	41 (13.0)	1.97	1.01	D
grand mean					2.92	0.88	

The data in Table 6 above shows the mean responses of the respondents on the challenges undermining the effective use of electronic resources in the NOUN Library. The table also indicates that aside from time-consuming (1.97±1.01), the respondents agree that inadequate power supply (3.55±0.67), poor internet connectivity (3.37±0.75), lack of technological competence (2.37±1.12), and limited access to computer terminals (3.32±0.86) are challenges undermining the effective use of electronic resources in the NOUN Library.

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Discussion of Findings

In Table 3, the study revealed that responses from students said that all
the above-listed electronic resources are available for their use in
NOUN library, except e-conference proceedings, which the majority
of students indicated were not available for use. Some of those
electronic resources readily available are Internet services, e-books, e-
journals and e-mail services. These give students much valuable
information for their learning. It is of great importance for these e-
resources to be available to enhance their academic performance. This
is in line with what Alzahrani (2017) argued that the importance of e-
resources is of great benefit, changing and improving the attitude of
students that encourages collaboration and exchange of ideas among
them for effective learning. Also, supporting the e-resources
availability and services, Khan, (2016) opined that technology has
thrown libraries with new opposing challenges, enabling them to
ensure better services and reach out to their users with their diverse
needs, with numerous e-resources to retrieve.

Table 4 revealed that the majority of respondents indicated their
frequent use of electronic resources. Many of them occasionally use
those e-resources, such as internet services, e-books, and e-journals
among others. All these have lots of impact on their learning. The
students use information in the library to meet their academic pursuits.
It is highly commendable for learners to imbibe the usage of such e-
resources for the enhancement of their academic work. The findings of
Maitato (2020) supported that students use e-resources daily and
occasionally, as long as the internet is available and can be connected
to the university. The frequency of usage depends on the individual
students and the actual assignment they are using it for. It is highly
encouraging that the students of NOUN can regularly use e-resources
to have a positive impact on their learning outcomes.

Hypothesis 1 shows the number of learners that indicated usage in
South-east is 125 against 191 for South-south, resulting that the
learners from South-south indicated higher usage of e-resources than
that of the South-east, hence the X score is 3.4800 against 2.1487.

The indication from students' responses from Table 5 shows that the use of electronic resources has much influence on their preparation for their class tests, seminar writing/presentation, class assignments and reading for examination, except in the use for general academic work. All these show that the usage has a great influence on the learner's learning and academic performance. It should be encouraged. This is in line with Okorie, Nwokocha and Ibenne's (2018) opinion, which states that a greater number of the respondents confirmed that the use of electronic information resources influences their academic performance in seminar writing, assignments and paper presentation positively, and still observed that electronic books (e-books) were found to be mostly available for students' accessibility in their academic pursuit.

Hypothesis 2 revealed the responses of learners by age on the influences of their usage of electronic resources, which has it that between groups are 146.661 which rates higher, while within groups are 20.457, with an overall total of 167.118.

Table 6 shows that respondents agreed and strongly agreed that some challenges undermine their effective use of the electronic resources in the library, such challenges could be inadequate power supply, poor internet connectivity, lack of technology competence and limited access to computer terminals. All these contribute to the challenges to the students' usage of available e-resources in the library. This is supported by the findings of Ankrah and Atuase (2018), that poor internet connection and frequent power outages in the library could be challenging factors for the effective utilisation of e-resources by users of the library. Also, Abdulrahman and Onuoha (2019) still suggested that challenges associated with the access to e-resources by students in libraries could be slowed down due to the sluggish nature of internet connectivity and difficulty in navigating the web to find proper information.

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Conclusion

Libraries have been at the forefront of providing both resources and services to their users, enabling them to have access to their needed information resources with ease. An information resource is the backbone of any academic library as well as information centres for academic pursuit and research activities. Information and Communication Technologies (ICTs) have been employed in information services due to the provision of effective access in libraries to make use of various technologies and networks to disseminate information to the proper users. Provision of resources and their dissemination in the library work simultaneously, for the learners' accessibility to satisfy their academic pursuit. The National Open University of Nigeria has a unique library and digital library with electronic resources and services for the benefit of their students in different locations, providing access to the ER from their various homes or study centres. According to Shehu, (2018), it was expressed that several Study Centres are located in state capitals, spread all over the six geo-political zones of the country as well as the Federal Capital Territory (Abuja) and these Centres are permanent NOUN structures while some are situated within some selected Government institutions. All were selected based on geographical and demand assessment criteria and on the existence of free infrastructures such as visual libraries to enable the sharing of knowledge and other resources suitable for learners in their various centres.

Recommendations

The following recommendations are deduced from the study.
1.   There should be availability of updated databases with links for students to access across the study centres' libraries.
2.   The availability of electronic resources (ER) should be made aware of their existence to enable learners to use them appropriately.
3.   The provision of functioning computers and internet connectivity should be a considerable issue in all the study centres, not only in the HQ library, to ensure usage by every student to access ER and other information.

4. The library management through the study centres' support should create awareness of the existence and use of some provided databases, e-resources and other facilities.

5. The University management should constantly emphasise the use of online resources among the students for their effective learning and exposure.

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