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## ASSESSMENT OF AVAILABILITY AND UTILIZATION OF LIBRARY RESOURCES AND SERVICES BY UNDERGRADUATE STUDENTS OF BIOLOGY EDUCATION IN TWO UNIVERSITIES IN BENUE STATE

<sup>1</sup>AGBO Kate, <sup>2</sup>Tunlong James Kepue (CLN), <sup>4</sup>Tarbo Dorcas Nguwasen(CLN)

<sup>1</sup> Central Library, Benue State University, Makurdi, [kateag83@gmail.com](mailto:kateag83@gmail.com), 08168351230

<sup>2</sup> Polytechnic Librarian Federal Polytechnic Nyak Shendam Plateau State, [tunlongjames@gmail.com](mailto:tunlongjames@gmail.com), 08135520372

<sup>3</sup>BSU Library, Principal Library Officer 1 Benue State University, Makurdi, [dorcastarbo@gmail.com](mailto:dorcastarbo@gmail.com) +234 803 250 7226

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### ABSTRACT

*This study is aimed at determining the availability and utilization of library resources by undergraduate students of Biology Education in two University libraries in Benue State. Three research questions were answered by the study while one null hypothesis were formulated and tested at 0.05 level of significant. The study adopted descriptive survey research design. The study was carried out in Benue State using targeted population of 1075 undergraduate students of Biology Education from Benue State University Makurdi and federal University of Agriculture Makurdi. The sample for the study was 292 undergraduate students from the two universities. The data were analyzed using mean to answer the research question and t-test statistics to test the null hypotheses at 0.05 level of significance. The findings revealed that some resources were available in the library and also some services were available in the two university libraries. It further revealed that, these resources are used in the two libraries and the available services in the two libraries are also used. Factors hindering the usage of library resources such as out dated information materials; power failures, lack of current awareness among others were discovered. It further revealed that, there is a statically significant difference between the mean ratings of the responses of respondents, the following recommendations were made. Current information resources should be provided in the two libraries. Also, user education programmes should be properly organised in the two university libraries and Stand-by generators should be provided in the two university libraries to avoid power frustration and finally, awareness should be created on availability of library resources in the two libraries among others.*

**Keywords:** Assessment, Availability, Utilization, Library, Resources, Services, Undergraduate, Students, Biology, Universities.

## INTRODUCTION

Libraries play a crucial role in supporting the academic and research needs of students, faculty, and researchers in institutions of higher learning. The availability and utilization of library resources and services are essential for the academic success of undergraduate students, particularly those studying in the field of Biology Education.

Several studies have highlighted the importance of library resources and services in the academic achievement of students. For example, a study by John and Smith (2017) found that students who frequently used library resources and services had higher academic performance compared to those who did not. Similarly, a survey conducted by Brown et al. (2018) revealed that students perceived the availability of library resources and services as essential for their studies.

The access and utilization of electronic information resources have a significant influence on the academic performance of postgraduate students in universities in Benue State, Nigeria. With the increasing availability of electronic resources such as online journals, e-books, and databases, students have greater access to a wide range of academic materials. This can lead to improved research and learning outcomes, as students are able to access up-to-date information and diverse perspectives on their subjects of study. Furthermore, students can conduct self-directed study and research thanks to the ease of use and adaptability of electronic resources, which can improve their academic achievement. Obande, Obeka Bonnie and Abdulsalami, Lucky Tijani (2020). However, despite the recognized importance of library resources and services, there are challenges that may hinder their availability and utilization by undergraduate students. These challenges may include inadequate funding for library acquisitions, outdated or insufficient resources, limited opening hours, lack of awareness about available services, and inadequate training for librarians to support students effectively.

In the context of Biology Education, access to relevant and up-to-date resources is particularly crucial due to the dynamic nature of the field. Students pursuing degrees in Biology Education require access to current research articles, textbooks, and other materials to support their learning and research activities. Furthermore, the specialized nature of Biology Education may necessitate specific services such as assistance with scientific literature searches, access to laboratory manuals, and support for data analysis and interpretation.

## PURPOSE OF THE STUDY

The main purpose of the study is to determine the availability and utilization of library resources by undergraduate students of Biology Education in two Universities in Benue State. Specifically, the study seeks to:

- I. ascertain the level of availability of library resources in two University libraries in Benue State.
- II. ascertain the level of usage of library resources by undergraduate students of Biology Education in two University libraries in Benue State.
- III. find out the factors hindering the use of library resources by undergraduate students of biology education in two University libraries in Benue State.

## RESEARCH QUESTIONS

- I. What is the level of availability of library resources in two University libraries in Benue State?
- II. What is the level of usage of library resources by undergraduate students of biology education in two University libraries in Benue State?
- III. What are the factors inhibiting the usage of library resources in two University libraries in Benue State?

## RESEARCH HYPOTHESES

There is no significant difference between the mean responses of undergraduate students from two Universities in Benue State on the extent of availability of library resources.

## LITERATURE REVIEW

The availability and utilization of library resources and services by undergraduate students of Biology Education in universities are crucial for their academic success. Adequate access to relevant resources and services can significantly impact their learning, research, and overall educational experience. This literature review aims to examine the current state of availability and utilization of library resources and services by undergraduate students of Biology Education in two universities in Benue State.

A study by Johnson (2018) highlighted the importance of library resources and services in supporting the academic endeavors of undergraduate students. The author emphasized that access to a wide range of resources, including books, journals, databases, and multimedia materials, is essential for students

majoring in Biology Education. Furthermore, the study emphasized the role of library services such as reference assistance, information literacy programs, and interlibrary loan services in facilitating students' research and learning activities.

In the context of undergraduate students of Biology Education, the availability of specific resources such as biology textbooks, scientific journals, and research databases is particularly crucial. A study conducted by Smith (2017) found that limited access to updated biology textbooks and scholarly journals significantly hindered the research capabilities of undergraduate students. The study emphasized the need for universities to invest in expanding their collection of biology-related resources to meet the diverse needs of Biology Education students.

Moreover, the utilization of library resources and services by undergraduate students of Biology Education plays a vital role in their academic development. Research by Brown (2019) indicated that proactive engagement with library resources, including regular use of library materials, participation in library workshops, and seeking guidance from subject librarians, positively correlated with academic performance among undergraduate students. The study underscored the importance of promoting active utilization of library resources and services to enhance students' learning outcomes.

Despite the important of electronic resources to students, it has been noted that they seem not to be using the resources. Obande, Osakwe, Ujakpa, Ikechukwu and Amunkete (2020)

In the context of Benue State, it is essential to assess the specific challenges and opportunities related to the availability and utilization of library resources and services by undergraduate students of Biology Education. A comparative analysis of two universities in Benue State can provide valuable insights into the existing disparities and best practices in this regard. By examining factors such as library budgets, collection development strategies, information literacy initiatives, and user satisfaction surveys, this review aims to identify areas for improvement and potential interventions to enhance the support for Biology Education students.

Availability of library services such as user education service in the library is as vital as some users cannot use the library resources on their own without the assistance of the library staff. Ishola (as cited in Esse, 2012) is of the view that the need for user education in Nigerian institutions of learning is even made more urgent as most students come into the higher institution without library background and even where students are previously exposed to the use of library, the size of the library in the institution, the resources and their organization are complex so they must be introduced to it and with the expected increase in students enrolment, greater responsibility for finding materials belong to the students. She further stated that, there is therefore no

point in buying library collections and carefully organizing it and one uses it.

According to Abubakar (as cited in Usman, 2011) user education is a programme to educate library users on how to utilize library resources effectively.

Concept of use according to this study simply means utilization of library resources and services. A person or thing that uses something somewhere or someplace to achieve his or her purpose(s) is a utilizer or user. In the same context, one can state that those who make use of the library materials for their benefits are library users or utilizers. Also, those who enter the library and find such library materials useful are library users. Whittaker (2013) also defined a user as "a person who uses one or more of library services at least once a year. Hence, people who go either to the public, private, special school or academic libraries for some genuine reasons, requiring the attention of the library staff, are known as the library users or utilizers. Library users in the Universities can be divided up administratively into external and internal users. The internal users consist of undergraduates, post-graduates, lecturers, research fellows and other members of the tertiary institutions, while the external users are those who are not members of the institution, but are also served by the libraries but under certain specific official arrangement. Users of academic libraries are mostly made up of subject readers who concentrate their use of library materials on subject fields; they are working in or are studying. Students belong to these subgroups of subjects' readers.

A factor that might motivate an individual to use a library is how easy it can be used. Thus, ease of use becomes an important factor to consider when a user is contemplating using a library. It is better to devise an information retrieval system that will not make it troublesome for a customer to have information. Ease of use is sometimes ranked ahead of quality or of information expected from a particular source (Wittaker, 2013). Provision of library catalogues that are easy to use, adequate guides to library collections and adequately shelved books enhance and facilitate library use. The University of Agriculture Makurdi library is one of the academic libraries. It has precise role and function to play as determined by the institutions goals and aspirations. The task of this library is, no doubt a formidable one considering the complex nature of the institutions community and the variety of learning and research interest.

The prime user of the library is of course the student who has to use the library to supplement his lecture notes or write assignments. In addition, he expects the library to provide him with materials in disciplines other than his specialized subject area and to play the role of the school. The library also serves as a place where the student can learn to keep himself up to date with the

development in the social, political and economic situation in his society and the world generally.

In short, an ideal academic institution library is also expected to provide light reading materials that can help to broaden the student's mind, to aspect and appreciate his culture and to develop his moral and intellectual horizon. It is also an institution for training of the student to understand his surroundings and thus, graduate as an educated and well-groomed individual who has been prepared to give his quota to the development of his society Alokun (as cited in Adejimos, 2017). It is observed that every academic staff is particularly keen in keeping himself current in his subject field. Therefore, academic staffs are a group of the many users of the library who expect the library to provide them with materials to enhance their teaching and research findings. Majority of the lecturers expects the library to provide them with materials to meet their teaching and research needs. From the fore-going, it is clear that no teacher is an encyclopedia of all knowledge, nor can, an institution exist and successfully carry out its programme without adequate library resources.

In recent years, there has been an increasing focus on the academic performance and career prospects of undergraduate students of Biology Education in Nigerian universities. A study by Okoh and Okoh (2018) explored the challenges faced by undergraduate students of Biology Education in Nigerian universities, highlighting issues such as inadequate laboratory facilities and limited access to relevant teaching resources. This is consistent with the findings of a similar study by Ocholi et al. (2017), which emphasized the need for improved infrastructure and resources to support the learning and development of Biology Education students.

Furthermore, a comparative analysis of undergraduate students of Biology Education in two universities in Benue State revealed significant disparities in the quality of education and academic support. The study by Aondoakaa and Iorver (2020) highlighted the need for standardized curriculum and teaching methodologies across different institutions to ensure equitable learning experiences for all students. Additionally, the research emphasized the importance of mentorship and career guidance for Biology Education students, particularly in navigating the complexities of the job market and professional development opportunities. In addressing these challenges, it is essential for educational policymakers and stakeholders to prioritize investment in infrastructure, faculty development, and student support services. This can be achieved through strategic partnerships with government agencies, private organizations, and international donors to enhance the overall quality of Biology Education programs in Nigerian universities.

## METHODOLOGY

This study adopted survey research design and a structured questionnaire was used for data collection. The population of 1075 students was used as a consensus study to retrieve data. In the respondents: undergraduate students of biology education in two universities in Benue State, the researcher administered the questionnaires on the face to face bases with the guidance of a research assistant that helped to identify the undergraduate students of Biology Education in two universities. The data was analyzed using descriptive statistics precisely mean and standard deviation to answer the research questions. More so, t-test statistics was used to test the null hypotheses at 0.05 level of significance.

From Table 1, it can be seen that the mean rating scores of all the items are above 2.50 except item 12; with the grand mean of 3.0758 and standard deviation of 0.25830. This implies that Text books, Journals, Encyclopedias, Maps, Yearbooks, Dictionaries, Magazines, Newspapers, Almanac, DVD Player, Television, Projects, Dissertations, Theses, Computers, and Internet are available while Brailled books are not available.

### Research Question 2

*What is the level of usage of library resources by undergraduate students of biology education in two University libraries in Benue State?*

To answer the research question, data were collected on opinions of respondents relating to level of usage of library resources by undergraduate students of biology education in two University libraries in Benue State. The collected data were analysed and presented in Table 2.

From Table 2, it can be seen that the mean rating scores of all the items are above 2.50 except item 42; with the grand mean of 3.0717 and standard deviation of 0.33542. This implies that Text books, Journals, Encyclopedias, Maps, Yearbooks, Dictionaries, Magazines, Newspapers, Almanac, DVD Player, Television, Projects, Dissertations & Theses, Computers, and Internet are used by undergraduate students of biology education in two University libraries in Benue State while Brailled books are not used.

### Research Question 3

*What are the factors inhibiting the usage of library resources in two University libraries in Benue State?*

To answer the research question, data were collected on opinions of respondents relating to factors inhibiting the usage of library resources in two University libraries in

Benue State. The collected data were analysed and presented in Table 3.

**Table 1: Descriptive Statistics of Responses on Availability of Library Resources in the Two University Libraries in Benue State**

Descriptive Statistics					
SN	Items	N	Mean	Std. Deviation	Remarks
1	Text books	292	3.3973	.90421	Available
2	Journals	292	3.1027	.93595	Available
3	Encyclopedias	292	2.6747	.78231	Available
4	Maps	292	3.5000	.89481	Highly Available
5	Yearbooks	292	2.9863	.86144	Available
6	Dictionaries	292	2.7089	.99872	Highly Available
7	Magazines	292	3.6507	.68956	Highly Available
8	News papers	292	3.7089	.70408	Highly Available
9	Brailed books	292	1.2418	1.32126	Not Available
10	Almanac	292	3.4863	.61187	Available
11	DVD Player	292	2.6404	1.26985	Available
12	Television	292	2.9932	1.31079	Available
13	Projects, Dissertations & Theses	292	2.9829	.85938	Available
14	Computers	292	2.6986	1.00425	Available
15	Internet	292	3.6644	.69140	Available
16	Grand Mean	292	3.0758	.25830	Available
17	Valid N (listwise)	292			

**Table 2: Descriptive Statistics of Responses on Level of Usage of Library Resources by Undergraduate Students of Biology Education in Two University libraries in Benue State**

SN	Items	N	Mean	Std. Deviation	Remarks
18	Text books	292	3.0890	.91510	Used
19	Journals	292	2.7055	.78795	Used
20	Encyclopedias	292	3.5377	.89402	Highly Used
21	Maps	292	2.9829	.85938	Used
22	Yearbooks	292	2.6678	1.02340	Used
23	Dictionaries	292	3.7089	.59856	Highly Used
24	Magazines	292	3.4452	.87760	Used
25	News papers	292	3.8014	.39965	Highly Used
26	Brailed books	292	1.4315	.97323	Not Used
27	Almanac	292	2.9452	1.19438	Used
28	DVD Player	292	2.8185	1.17151	Used
29	Television	292	2.7911	1.25490	Used
30	Projects, Dissertations & Theses	292	3.3562	.89856	Used
31	Computers	292	3.4726	.74331	Used
32	Internet	292	3.3219	.81173	Used
33	Grand Mean	292	3.0717	.33542	Used
34	Valid N (listwise)	292			



**Table 3:** Descriptive Statistics of Responses on Factors Inhibiting the Usage of Library Resources in two University Libraries in Benue State

Descriptive Statistics					
SN	Items	N	Mean	Std. Deviation	Remarks
35	Outdated Information Resources	292	3.6712	.67462	Strongly Agree
36	Lack of Reading Spaces	292	3.1644	.68391	Agree
37	Theft and Mutilation of Information Materials	292	2.8390	.94784	Agree
38	Power (electricity) Failure	292	3.6507	.68956	Strongly Agree
39	Poor User Education	292	3.7089	.70408	Strongly Agree
40	Unavailability Audio Visual Services	292	3.7945	.40475	Strongly Agree
41	Poor Internet Services	292	2.9932	.95606	Agree
42	Poor Cataloguing and Classification of Materials	292	2.9178	.93432	Agree
43	Bindery Services	292	3.3973	.93411	Agree
44	Lack of Inter Library Loan to Acquire Materials library doesn't have but Available elsewhere	292	3.1781	.91332	Agree
45	Inadequate Equipment for Printing Downloaded	292	2.9144	.55259	Agree
46	Not Allowing Photocopying Whole or Part of needed Material	292	3.6712	.67462	Strongly Agree
47	Lack of Current Awareness Services	292	3.1644	.68391	Agree
48	Lack of Rest Room/Convenience	292	2.8390	.94784	Agree
49	Inconsistency in Abstracting and Indexing Services	292	3.6507	.68956	Strongly Agree
50	Poor Bibliographical Service System	292	3.7089	.70408	Strongly Agree
51	Poorly Organized Shelf guides/marks	292	3.7945	.40475	Strongly Agree
52	Grand Mean	292	3.5564	.25377	Strongly Agree
53	Valid N (listwise)	292			

**Table 4:** *t*-test of Responses on Difference between the Mean Response of Federal University of Agriculture and Benue State University on Availability of Library Resources

	Name of Institution	N	Mean	Mean Difference	Std. Deviation	t	df	Sig. (2-tailed)
Level of Library Resources Available in University Libraries	Federal University of Agriculture, Makurdi	219	3.0408	-.14003	.25550	-4.120	290	.000
	Benue State University, Makurdi	73	3.1808	-.14003	.23895			

From Table 3, it can be seen that the mean rating scores of all the items are above 2.50. This implies that outdated Information Resources, lack of Reading Spaces, theft and Mutilation of Information Materials, power (electricity) Failure, Poor User Education, Unavailability Audio Visual Services, Poor Internet Services, Poor Cataloguing and Classification of Materials, poor Bindery Services, lack of Inter Library Loan to Acquire Materials library doesn't have but Available elsewhere, Inadequate Equipment for Printing Downloaded documents, Not Allowing Photocopying Whole or Part of needed Material, Lack of Current Awareness Services, Lack of Rest Room/Convenience, Inconsistency in Abstracting and Indexing Services, Poor Bibliographical Service System and Poorly Organized Shelf guides/marks are the factors inhibiting the usage of library resources in the two University libraries in Benue State.

**Test of research hypothesis the formulae hypothesis for the study were tested at the 0.5 level of significance.**

#### **Hypothesis one**

To test the hypothesis, data were collected on opinions of respondents relating to hypothesis. The collected data were analysed and presented in Table 4.

From Table 4, it can be seen that the mean rating scores of 219 undergraduate students of Biology from Federal University of Agriculture, Makurdi is 3.0408 with the standard deviation of 0.25550 and the mean rating scores of 73 undergraduate students of Biology from Benue State University, Makurdi is 3.1808 with standard deviation of 0.23895. Testing for the difference,  $t = -4.120$  with  $df = 290$  and had computer calculated associated probability for decision taking (Sig. 2-tailed) denoted by  $P = .000$ . Since  $P$  is less than 0.05 significance level, the hypothesis is rejected and the implication is that there is statistically significant difference between the mean responses of undergraduate students from two Universities in Benue State on the extent of availability of library resources.

#### **Discussions**

The study's findings, which are based on Table 1 results, show that while Brailled books are not available in the two university libraries in Benue State, text books, journals, encyclopedias, maps, yearbooks, dictionaries, magazines, newspapers, almanacs, DVD players, televisions, computers, and the internet are. The

conclusion that resulted from the rejection of the hypothesis was that there was a statistically significant difference in the mean replies of undergraduate students on the availability of library resources between two universities in Benue State. This study supports the argument made by Ugah (2008), who stated that in order to satisfy students' information needs, academic libraries should provide information resources including books, journals, atlases, tapes, flash, and so on.

The study's conclusions were based on Table 2's research question 2 results, which showed that there is a high degree of availability for library services in two university libraries in Benue, including circulation, reference, user education, audiovisual, internet, cataloguing and classification, binding, lending, printing, photocopying, membership registration, abstracting and indexing, and bibliographical services. The conclusion was that there is no discernible difference between the mean responses of undergraduate students from two universities in Benue State about the degree of library service availability, indicating that the hypothesis was not rejected.

The study is in line with Ramakrishna, Sasikala and Godwridevi (2016) who recommended that, services such as abstracting and indexing services, internet services, bibliographical services and so on be provided in addition to the available services in the university to enhance quality education of the users that library

It also agrees with Edem (2007) and Fawowe (2009) who observed that user education, reference services, bindery services and lending services among others are important library services that should be rendered or made available by libraries including libraries in the Universities to a very high extent.

Moreover, based on the results in Table 3, the findings of the study revealed that outdated Information Resources, lack of Reading Spaces, theft and Mutilation of Information Materials, power (electricity) Failure, Poor User Education, Unavailability Audio Visual Services, Poor Internet Services, Poor Cataloguing and Classification of Materials, poor Bindery Services, lack of Inter Library Loan to Acquire Materials library doesn't have but Available elsewhere, Inadequate Equipment for Printing Downloaded documents, Not Allowing Photocopying Whole or Part of needed Material, Lack of Current Awareness Services, Lack of Rest Room/Convenience, Inconsistency in Abstracting and Indexing Services, Poor Bibliographical Service System and Poorly Organized Shelf guides/marks are the factors inhibiting the usage of library resources in two University libraries in Benue State. The hypothesis was not rejected and the implication was that there is no significant difference in the responses of undergraduate students from two Universities in Benue State on factors hindering

usage of library resources. This is in line with Janus (2012) who identified potential problems facing utilization of library resources as outdated Information Resources, theft and Mutilation of Information Materials, power (electricity) Failure, Poor User Education, Poor Cataloguing and Classification of Materials,

### Conclusion

1. The study's conclusions indicate that while the two universities have a variety of resources at their disposal, there are certain obstacles preventing people from using them. A few suggestions were made to lessen the difficulties encountered when utilizing the library resources at these two Benue state colleges. This suggests that if the study's suggestions are followed, undergraduate biology students may be able to access and use library resources effectively to attain their academic potential. The study's conclusions led to the following suggestions being made:

- 1 To help users find specific information resources in the two University libraries, comprehensive tools and retrieval devices should be made available.
2. Libraries should strengthen their security measures to ensure that their materials are safe and difficult to mishandle or pilfer.
3. Lastly, the administrators of the two university libraries ought to provide the undergraduate biology students in Benue State with up-to-date resources.

### REFERENCE

- Aondoakaa, T., & Iorver, T. (2020). Comparative analysis of undergraduate students of Biology Education in two universities in Benue State. *Journal of Education and Research*, 5(2), 87-94.
- Brown, C. (2019). Utilization patterns of library resources among undergraduate students. *Journal of Information Literacy*, 8(3), 76-89.
- Brown, C., et al. (2018). Student perceptions of library resources and services: A survey of undergraduate students. *College & Research Libraries*, 79(3), 321-335.
- Obande, Obeka Bonnie and Abdulsalami, Lucky Tijani (2023). Availability, awareness and use of electronic information resources amongst library registered students in Federal University Lafia and Nasarawa State University Keffi. *Journal of Electric Machines and Control*, 16, 1, 2023, 46-61.
- Obande, Obeka. Bonnie., Osakwe, J., Ujakpa, M. M., Iyawa, G., Ikechukwu, A. O., & Amunkete, K. (2020). Awareness, accessibility, and usability of e-resources: university students' perspective. *IST-Africa 2020 Conference Proceedings* Miriam Cunningham and Paul Cunningham (Eds) IST-Africa Institute and IIMC, 2020 ISBN: 978-1-905824-64-9
- Okoh, J., & Okoh, F. (2018). Challenges faced by undergraduate students of Biology Education in Nigerian universities. *Nigerian Journal of Educational Research and Evaluation*, 12(1), 45-56.
- Ocholi, E., et al. (2017). Improving infrastructure and resources for undergraduate students of Biology Education in Nigerian universities. *Journal of Science Education and Technology*, 20(3), 189-201.
- Johnson, M. (2015). The role of academic libraries in supporting undergraduate research. *College & Research Libraries*, 76(5), 606-620.
- John, A., & Smith, B. (2017). The impact of library usage on student success: A mixed-methods study. *Journal of Academic Librarianship*, 43(1), 54-63.
- Johnson, A. (2018). The role of library resources and services in supporting undergraduate education. *Journal of Academic Libraries*, 15(2), 45-58.
- Smith, B. (2017). Assessing the adequacy of biology-related resources in university libraries. *Journal of Library Studies*, 22(4), 112-125.
- Smith, A. (2017). Library resources and student success: A research synthesis. *College & Research Libraries*, 78(6), 691-704.