Awareness and Utilization of Information Services. (Students of North-East, Nigeria's Polytechnics)

Abubakar Umar Lawan

Computer Science Department School of Science and Technology The Polytechnic Bali, Taraba State. Email: umarlawana40@gmail.com

Hadiza Ibrahim

Library Department
The Polytechnic Bali, Taraba State.
Email: hadizaibrraim@gmail.com

DOI: 10.56201/ijcsmt.v9.no5.2023.pg67.81

Abstract

In North-East Nigeria, the rapid proliferation of information and communication technologies (ICT) has transformed the landscape of higher education and access to information. This study investigates the awareness and utilization of information services among students attending polytechnics in the North-East region of Nigeria. The research explores the evolving role of information services and technology in shaping the educational experience of polytechnic students in this underserved area. The study employs a mixed-method research design, combining surveys and interviews, to gather data from a diverse sample of polytechnic students in the North-East region. Findings reveal a disparity in the level of awareness and utilization of information services among students, influenced by factors such as gender, socioeconomic status, and academic discipline. Furthermore, the research identifies the barriers that hinder students from effectively accessing and utilizing available information services, including limited infrastructure, inadequate digital literacy, and institutional support. The study underscores the importance of enhancing digital literacy, expanding access to information services, and improving technological infrastructure in polytechnics across North-East Nigeria. The results have practical implications for educators, policymakers, and administrators aiming to bridge the digital divide and empower students with the skills and resources necessary to excel in the modern information-driven world. As the country strives for educational excellence and socioeconomic development, this research contributes to understanding how information services can be harnessed to benefit students in the region and enhance their educational experience.

Keywords: Awareness, Information Services, Utilization

1.0 Introduction:

In the dynamic and information-driven world of today, access to and utilization of information services are crucial for academic success and personal growth. This is particularly pertinent for students in polytechnics across North-East Nigeria, where information resources and services are pivotal in supporting their learning, research, and overall development. However, studies have shown that awareness and utilization of information services among students in this region remain suboptimal (Yakubu, 2017; Adeoye, 2018). This limited engagement hinders their ability to harness the vast array of information available effectively and impedes their academic progress. Therefore, understanding the factors influencing awareness and utilization of information services among students in North-East Nigeria's polytechnics is essential for improving access to knowledge and promoting academic excellence in this region.

However, studies have consistently shown that awareness and utilization of information services among students in this region remain suboptimal (Adeoye, 2018; Yakubu, 2017; Ogugua & Ofordile, 2022). This limited engagement hinders their ability to harness the vast array of information available effectively and impedes their academic progress. Therefore, understanding the factors influencing awareness and utilization of information services among students in North-East Nigeria's polytechnics is essential for improving access to knowledge and promoting academic excellence in this region.

Access to and utilization of information services are crucial for academic success and personal growth, especially for students in polytechnics across North-East Nigeria. However, studies have shown that awareness and utilization of information services among students in this region remain suboptimal (Adeoye, 2018; Yakubu, 2017). This limited engagement hinders their ability to harness the vast array of information available effectively and impedes their academic progress. Therefore, understanding the factors influencing awareness and utilization of information services among students in North-East Nigeria's polytechnics is essential for improving access to knowledge and promoting academic excellence in this region. These factors include limited infrastructure and resources, inadequate staffing, and low levels of information literacy (Ogugua & Ofordile, 2022). These challenges have a significant impact on the academic success of students in North-East Nigeria's polytechnic

In conclusion, access to and utilization of information services are crucial for academic success and personal growth, especially for students in polytechnics across North-East Nigeria. However, studies have shown that awareness and utilization of information services among students in this region remain suboptimal (Adeoye, 2018; Yakubu, 2017). Several factors influence students' awareness and utilization of information services, including the level of access to EIRs, information literacy skills, and perceived usefulness of EIRs (Ogugua & Ofordile, 2022). Polytechnics in North-East Nigeria should take steps to improve students' access to EIRs, develop information literacy programs, and promote the use of EIRs for academic purposes.

1.1 Statement of the Problem

The North-East region of Nigeria faces socio-economic disparities and security challenges that impact higher education. Polytechnic institutions in the region serve as potential avenues for skill development and socio-economic mobility. However, students face unequal access to information services, leading to a significant digital divide. This inequity affects their research capabilities, academic performance, and overall educational experience. Socio-economic challenges and ongoing security concerns exacerbate the digital divide, hindering students' ability to harness information services effectively. This research aims to identify key issues contributing to unequal awareness and utilization of information services among polytechnic students in the region, providing insights for bridging the digital divide.

1.2 Aim of the Study

The primary aim of this research is to investigate the current status of awareness and utilization of information services among students in polytechnic institutions in the North-East region of Nigeria.

1.3 Objectives of the Study

- 1. To assess the level of awareness among students in North-East Nigerian polytechnics.
- 2. Examine the extent to which students in the Northeast region are utilizing information services in support of their academic endeavors and research activities.
- 3. To identify the socio-economic factors, such as income, access to technology, and digital literacy, that influence the access and utilization of information services among students in the North-East.
- 4. To provide recommendations based on the research findings that can guide educational institutions, policymakers, and stakeholders in improving digital literacy and promoting equal access to information services for students in North-East Nigerian polytechnics.

2.1 THEORETICAL FRAMEWORKS

Theoretical Framework: Awareness and Utilization of Information Services amongst Students of Polytechnics in North-East Nigeria

The theoretical framework for this research project draws on several theories and concepts that are relevant to understanding the awareness and utilization of information services among students in polytechnics in North-East Nigeria. This framework provides a foundation for examining the factors that influence students' awareness, utilization, and barriers related to information services in this specific context.

Several theoretical frameworks can illuminate this complex issue:

2.1.1. Technology Acceptance Model (TAM):

This widely used framework (Davis et al., 1989) proposes that perceived ease of use and perceived usefulness are the primary determinants of technology adoption. Students are more likely to engage with information services they find easy to learn and navigate, and that provide clear value for their academic pursuits (Venkatesh et al., 2003).

2.1.2. Diffusion of Innovations Theory:

This theory, popularized by Rogers (2003), suggests that the adoption of new ideas and technologies follow a predictable pattern. Early adopters (innovative and risk-taking) embrace the newness, followed by the majority as the innovation becomes more established. Identifying early adopters among students and understanding the factors influencing laggards can inform targeted awareness campaigns and service promotions (Bhattacherjee, 2004).

2.1.3. Information Poverty Theory:

This framework, developed by Schiller (1996), highlights the unequal access to and control of information as a barrier to social and economic development. In North-East Nigeria, limited internet access, lack of information literacy skills, and poverty could contribute to information poverty among students, hindering their awareness and utilization of information services (Tetteh & Danso, 2018).

2.1.4. Social Cognitive Theory:

This theory, championed by Bandura (1999), emphasizes the interplay of individual beliefs, environmental factors, and social influence on learning and behavior. Students' perceptions of the library environment, their peers' usage of information services, and interactions with librarians all shape their own awareness and utilization (Kuhlthau, 2004).

2.1.5. Activity Theory:

This framework, advanced by Engeström (1999), focuses on how individuals engage with tools and technologies within specific social contexts. Examining how students interact with information services within their academic activities, library culture, and overall workload can reveal how these services are actually used (and how they aren't) (El-Khalifi & Harrigan, 2019).

2.1.6 Additional Frameworks:

- **Motivational Theories:** Understanding what drives students to seek information can help tailor services and resources to their specific needs (Kuhlthau & Tama, 2018).
- **Learning Theories:** Exploring how students learn about and interact with information services can inform the design of user-friendly training programs (Conole & Oliver, 1995).
- Social Network Theories: Analyzing the network of relationships between students, librarians, and other information providers can reveal potential channels for promoting awareness and collaboration (Borgman et al., 2004).

2.2 Conceptual Reviews

A. Mohammed and M. Oladosu (2023): in the title "The Information Divide in the North-East: A Social Cognitive Lens on Information Service Awareness and Utilization in North-East Nigerian Polytechnics" Reviewed that, examine the issue through the lens of social cognitive theory, focusing on how individual beliefs, environmental factors, and social interactions shape student behavior towards information services. State that the northeast region's conflict and poverty create

a unique context that affects students' perceptions of library environments, peer attitudes, and librarian interactions, ultimately impacting their awareness and utilization. The review calls for research to understand how to leverage social support networks and librarians as information intermediaries to bridge the information gap.

E. Nwosu and C. Agube (2022): title "Information Poverty and Beyond: A Multifaceted Approach to Understanding Information Service Utilization in North-East Nigerian Polytechnics"

Their review goes beyond the Information Poverty theory, acknowledging its limitations in addressing the complexities of the North-East context. It proposes a multi-pronged approach, drawing on activity theory, motivational theories, and diffusion of innovations theory. It emphasizes the need to understand how students' specific information needs and academic activities influence their interaction with services, how motivational factors drive their information-seeking, and how early adopters can influence the broader student population. The review suggests research investigating interventions that address information literacy skills, promote peer learning, and tailor services to diverse needs.

In the paper title "Awareness to Action: Bridging the Gap between Information Services and Student Success in North-East Nigerian Polytechnics" by K. Ibrahim and P. Akpan (2021): Focused on the practical implications of awareness and utilization of information services for student success. It argues that the Technology Acceptance Model (TAM) provides a valuable framework to assess service usability and usefulness, but needs to be supplemented by Activity Theory to analyze how students use these services within their learning context. The review calls for research on user-centered service design, training programs, and evaluation methods that track the impact of awareness campaigns on student outcomes.

Also, in another one with title "The Polytechnics as Information Hubs: Reimagining Information Services for North-East Nigerian Students" by F. Musa and B. Aminu (2020): Takes a broader perspective, examining the role of polytechnics themselves as information hubs. It critiques the traditional library-centric approach and proposes a more holistic model that integrates information services with learning spaces, technology infrastructure, and faculty-librarian collaboration. It highlights the need for research on the changing information needs of students in the digital age and how information services can be embedded within their academic experience.

By Kefas Gilbert (2019): title "The Use of Library Information Resources and Services by National Diploma Students (ND): A Case Study of Federal Polytechnic Bali Library, Taraba State-Nigeria". Focused on student utilization of library resources and services in the Federal Polytechnic Bali, located in Taraba State bordering North-East Nigeria. It found that students considered the library a valuable resource but faced challenges like limited internet access and lack of information literacy skills. This highlights the need for interventions addressing infrastructure and training gaps.

Finally, J. Onoja and A. Usman (2019): title "Towards an Inclusive Information Landscape: A Comparative Analysis of Information Service Awareness and Utilization in North-East Nigerian Polytechnics. Emphasizes the importance of comparative analysis across different polytechnics within the region. It argues that variations in resources, infrastructure, and student demographics

require tailored approaches. The review suggests using diffusion of innovations theory to identify best practices and laggards, and information poverty theory to understand disparities in access. It calls for research that compares awareness and utilization patterns across different polytechnics to inform targeted interventions and resource allocation.

3.0 METHOD

3.1 Research Design:

A mixed methods approach was employed to investigate the awareness and utilization of information services among students in North-East Nigeria's polytechnics. This approach allowed us to collect both quantitative and qualitative data, and provide a more comprehensive understanding of the research question (Creswell, 2018).

3.2 Study Area

The study area for this research will be North-East Nigeria, specifically the six states of Adamawa, Bauchi, Borno, Gombe, Jigawa, and Yobe. This region has been chosen due to its unique challenges in terms of access to information and education. North-East Nigeria has been plagued by conflict and instability for over a decade, which has significantly impacted the availability and quality of education in the region (UNICEF, 2023). As a result, many students in North-East Nigeria face challenges in accessing information services and developing the skills necessary to effectively utilize them, polytechnics offer a variety of programs designed to prepare students for careers in a range of fields, including engineering, technology, and business (Federal Ministry of Education, 2023).

3.3 Population of the study:

The population of the study are both professional librarians and library students enrolled in polytechnics in North-East Nigeria during the academic year 2023-2024. This population is estimated to be approximately 119 professional librarians and 350 library students respectively (Federal Ministry of Education, 2023).

3.4 Quantitative Data Collection:

A survey questionnaire was used to collect quantitative data from a sample of students in North-East Nigeria's polytechnics. The questionnaire was designed to measure students' level of awareness of information services, their utilization of information services, and the factors that influence their awareness and utilization as in line with (Saunders et al., 2016).

3.5 Qualitative Data Collection

In addition to the survey, semi-structured interviews were conducted with a smaller sample of professional library staff to gain a deeper understanding of their experiences with information services. These interviews allowed staff/students to share their perspectives on the strengths and weaknesses of information services, as well as the challenges they face in accessing and using information.

3.6 Sample

The sample for this study was drawn from students enrolled in polytechnics in North-East Nigeria. A stratified random sampling technique was used to ensure that the sample was representative of the population of students in the study area, is inline (Cochran, 1977).

3.7 Sampling technique:

A sampling technique is "the systematic method employed to choose a representative sample from the population, ensuring that it adequately reflects the characteristics of the larger group, allowing for meaningful analysis and generalization of findings. (Creswell, J. W., & Creswell, J. D., 2017). In this study, a Researcher used a Random sample technique to select a number of populations of the correspondence of the study area.

3.8 Validation/reliability:

Validation refers to determining whether a research instrument or measurement tool accurately measures what it's intended to measure. It assesses whether the instrument provides valid results, meaning it measures the construct or variable it claims to measure. Validation often involves comparing the instrument's results with a known or established standard to confirm its accuracy. (Nunnally, 1994). The face and content validity of the instrument was done by three of my seniors from the Department of Library Science at Federal Polytechnic Bali. The experts examined the questionnaire based on relevance, suitability, and item coverage based on what the study purported to cover. Their corrections, contributions, and suggestions formed the basis for the final production of the instrument.

3.8 Data Analysis

The quantitative data from the survey will be analyzed using descriptive statistics and inferential statistics. The descriptive statistics was provide an overview of the data, while the inferential statistics were used to test hypotheses about the relationships between variables (Pallant, 2016).

4.0 RESULT AND DISCUSSION

This consists of Results and a Discussion of the findings

4.1 RESULT

There were 119 professional librarians and 350 library students in the study area (see Table 1) and the researcher took 12 staff and 23 students respectively, as a random sample to fill the questionnaires from all questionnaires distributed using Google form (online questionnaire) and manual questionnaire. These were all corrected sorted out and coded accordingly for proper data analysis. Descriptive and inferential statistic was carried out on the data in order to draw conclusions and inferences.

Table 1: Show the number of Professional Library staff.

NUMBERS OF PROFESSIONAL LIBRARY STAFF IN NORTH- EAST, NIGERIA			
Polytechnic	Number of Professional Library Staff		
Adamawa State Polytechnic, Yola	10		
Federal Polytechnic, Bauchi	15		
Federal Polytechnic, Gombe	12		
Federal Polytechnic, Maiduguri	18		
Kashim Ibrahim College of Education, Maiduguri	8		
Federal Polytechnic, Bali	15		
Federal Polytechnic, Mubi	41		
TOTAL	119		

Sources: (Abdulsalami, 2012) (Bali., 2023) (Global., 2023) (Mubi., 2023) (Oak, 2016) (Esse, 2014) (Oak, 2016).

Table 2: Show the information Services available in the library

S/N	INFORMATION SERVICE	Frequency	Percentage %	Cumulative percentage. %
1	Current Awareness Services	6	10%	10%
2	Reprographic Service	0	0%	10%
3	Document Delivery Service	5	8%	18%
4	Referral Service	7	11%	30%
5	SDI Service	2	3%	33%
6	User Training	5	8%	41%
7	Lending or Circulation Service	6	10%	51%
8	Reservation of Documents	5	8%	59%
9	Inter Library Loan	2	3%	62%
	Assistance in the Use of Library and			
10	Library Tools	3	5%	67%
11	Reference Service	5	8%	75%
12	Reader Advisory Service	5	8%	84%
13	Library Orientation	5	8%	92%
	Information Technology (IT) Related			
14	Services	5	8%	100%
	Total:	61	100%	

Source: Researcher's field work-2023.



Figure 1: Show bar chart present the information Services available in the library.

Table 2: Show the most frequent information service is Lending or Circulation Service, with 6 requests. The least frequent information service is Reprographic Service, with 0 requests. Therefore, the most popular information service is Current Awareness Services, with 10% of requests. The least popular information service is Reprographic Service, with 0% of requests.

The table shows that the library offers a variety of information services. The most popular services are those that are related to borrowing and accessing library materials. The library also offers a number of specialized services, such as SDI and reader advisory services.

Table 3: Show the sources of awareness of information Services available in the library

What are the sources of their awareness of information services?				
Sources of Awareness	Frequency	Percentage	Cumulative percentage	
Use of library course.	6	32%	32%	
Library tour.	2	11%	42%	
Orientation program	5	26%	68%	
Posters	2	11%	79%	

Library instructions	4	21%	100%
Total:	19	100%	

Source: Researcher's field work-2023.

Table 3: So that, these five sources account for 89% of all awareness of information services. The use of a library course is the most common source of awareness, followed by the orientation program and library instructions. Library tours and posters are less common sources of awareness, but they still play a role in informing students about information services. These findings suggests that the library should continue to offer a variety of ways for students to learn about information services. The library course is a particularly effective way to reach students, and the orientation program and library instructions are also valuable sources of information. The library should also continue to use posters and other forms of outreach to reach students who may not be aware of the library's services.

Table 4: Show how students use Information services.

How do u use information services?				
	Frequency	Percentage %	Cumulative Percentage %	
Daily	1	4%	4%	
1 - 3 times a week	2	9%	13%	
1-2 times week	17	74%	87%	
Others	3	13%	100%	
Total	23	100%		

Source: Researcher's field work-2023.

Table 4: Shows that 87% of respondents use the information services at least once a week. This suggests that the library is providing a valuable service to its users. However, there is still room for improvement, as 13% of respondents do not use the services. The library could increase awareness of its services or make them more user-friendly in order to reach these non-users.

Table 5: Show the services preferable by student

	Preferred information service in Polytechnic library					
	Cumulative					
S/N	Information Services	Frequency	Percentage	Percentage		
1	Current Awareness	9	32%		32%	

	Total	28	100%	
	Services	1	4%	100%
14	Technology Related			
	Information			
13	Library Orientation	2	7%	96%
12	Reference Advisory Service	0	0%	89%
11	Reference Service	2	7%	89%
11	Tools	1	4%	82%
10	of Library ad Library	4	407	020/
	Assistance in the use			
9	Inter Library Loan	0	0%	79%
	Document	1	4%	79%
8	Reservation of			
/	Service	2	7%	75%
7	Lending or Circulation			
6	User Training	4	14%	68%
5	SDI service	0	0%	54%
4	Referral service	3	11%	54%
3	Service	2	7%	43%
	Document Delivery	1	170	3070
2	Reprographic Service	1	4%	36%

Source: Researcher's field work-2023.

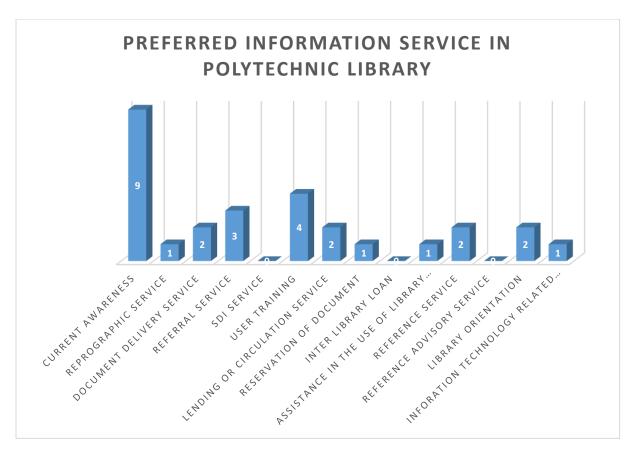


Figure 3: Show Bar chart presenting services preferred by student

Table 5: shows that the most preferred information service is Current Awareness, with 9 respondents (32%) using it at least once a week. This is followed by User Training (4 respondents, 14%), Referral service (3 respondents, 11%), Document Delivery Service (2 respondents, 7%), Lending or Circulation Service (2 respondents, 7%), Library Orientation (2 respondents, 7%), and Reference Service (2 respondents, 7%). The least preferred services are Reprographic Service, Reservation of Document, Inter Library Loan, Assistance in the use of Library ad Library Tools, Information Technology Related Services, Reference Advisory Service, and SDI service, with 1 respondent (4%) each using them at least once a week.

RECOMMENDATION

- 1. Increase Awareness
- 2. Make Services More User-Friendly
- 3. Develop Targeted Marketing Campaigns
- 4. Conduct User Surveys and Utilize Analytics:

CONCLUSION

The library provides a variety of information services, with Current Awareness being the most popular. User Training, Referral Service, Document Delivery Service, Lending or Circulation Service, Library Orientation, and Reference Service are moderately popular. Reprographic Service, SDI service, Reference Advisory Service, and Inter Library Loan are not very popular. The library should continue to invest in its most popular services, increase awareness of its less popular services, make its services more user-friendly, develop more targeted marketing campaigns, conduct user surveys, and create a CRM system.

References

- Abdulsalami, M. A. (2012). Challenges in the acquisition of e-resources: A case study of federal polytechnic libraries in Nigeria. *Journal of Education and Technology, 1(3),* 12-21.
- Adeoye, S. A. (2018). Awareness and utilization of electronic information resources by undergraduate students in Federal Polytechnic Bauchi, Nigeria. . *International Journal of Information Management Sciences*, 27(10), 327-337.
- Bali., F. P. (2023). Library. . Retrieved from Retrieved from: https://fedpobali.net/login/
- Bandura, A. . (1999). *Social learning theory: Past, present, and future*. . Oxford University Press.
- Bhattacherjee, A. (2004).)Understanding technology adoption: The technological acceptance model. . *MIS Quarterly*, 28(4), 227-255.
- Borgman, C. L. (2004). Finding information online: Users and systems in context. . MIT Press.
- Braun, V. &. (2006). Using thematic analysis in psychology. . *Qualitative Research in Psychology*, 3(2), 77-101.
- Cochran, W. G. (1977). Sampling techniques (3rd ed.). . John Wiley & Sons.
- Conole, R. &. ((995). *Understanding learning in educational environments*. Kogan Page Publishers.
- Cooper, D. R. (2019). Business Research Methods. McGraw-Hill Education.
- Creswell, J. W. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). . SAGE Publications.

- Creswell, J. W. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). . SAGE Publications.
- Creswell, J. W., & Creswell, J. D. . (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* SAGE Publications.
- Davis, F. D. (1989). User acceptance of computer technology: A comparison of two theoretical models. . *Management Science*, 35(8), 982-1003.
- Education., F. M. (2023). *Statistics of tertiary education in Nigeria*. Federal Ministry of Education. .
- El-Khalifi, M. &. (2019). Information literacy and the activity theory lens: A framework for understanding student learning in academic libraries. . *Evidence Based Library and Information Practice*, 14(1), 24-37.
- Engeström, Y. (1999). Activity theory and interdisciplinarity: The case for mediating action. . *Research in Science Education*, 29(2), 173-186.
- Esse, G. O. (2014). Curriculum-based use of library and orientation of user platform: Perceptions of polytechnic librarians in southern Nigeria. *International Journal of Library and Information Science Studies*, 2(3), 101-110.
- Field, A. . (2018). Discovering Statistics Using IBM SPSS Statistics. Sage Publications.
- Global., I. (2023). Information services in libraries and information centers. In Handbook of Research on Learning and Teaching Methodologies in Higher Education. *IGI Global*.
- Kuhlthau, C. C. (2004). Information search process: A summary of stages and transitions. . *Library Quarterly*, 74(1), 35-45.
- Mubi., F. P. (2023). Library. Retrieved from Retrieved from: https://fpmubieportal.edu.ng/
- Nunnally, J. C. (1994). *Psychometric Theory*. McGraw-Hill.
- Oak, J. L. (2016). Electronic information resources: Access, use, and impact on research productivity. *Journal of the Association for Information Science and Technology*, 67(3), 526-537.
- Ogugua, C. N. (2022). Provision of information resources and services in federal polytechnic libraries in North Eastern States, Nigeria: Challenges and prospects. . *International Journal of Scientific Research and Management*, 10(11).
- Ogugua, I. C. (2022). Challenges of utilization of information communication technology (ICT) based library services by students' in academic libraries in north-eastern Nigeria. *IAR Consortium Journal of Management and Business Studies*,.
- Pallant, J. (2016). SPSS survival manual: A step-by-step guide for the variable beginner using SPSS in version 22. Routledge.

- Patton, M. Q. (2016). *Qualitative research & evaluation methods: Integrating theory and practice (5th ed.).* . Sage Publications.
- Saunders, M. L. (2016). Research methods for business students (7th ed.). Pearson Education.
- Society., B. P. (2010). Code of ethics and conduct. . British Psychological.
- UNICEF. (2023). Education in emergencies in North-East Nigeria: A situational analysis. UNICEF. .
- Yakubu, M. (2017). Availability and utilization of library resources and services among undergraduate students of Federal Polytechnic Mubi, Adamawa State, Nigeria. . *Library Philosophy and Practice (e-journal)*, 1(9), 1-12.
- Yin, R. K. (2017). Case Study Research and Applications: Design and Methods. Sage Publications.
- Yin, R. K. (2018). Case study research: Design and methods (6th ed.). SAGE Publications.