

**MANAGEMENT OF MULTIMEDIA RESOURCES IN FEDERAL UNIVERSITY
LIBRARIES IN NORTH-CENTRAL ZONE, NIGERIA**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,
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INFORMATION SCIENCE**

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE,

AHMADU BELLO UNIVERSITY,

ZARIA

JULY, 2021

DECLARATION

I declare that this dissertation titled “Management of Multimedia Resources in Federal University Libraries in North Central Zone, Nigeria” has been written by me in the Department of Library and Information Science. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or any other certificate at this or any other Institution.

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Date

CERTIFICATION

This dissertation titled “MANAGEMENT OF MULTIMEDIA RESOURCES IN FEDERAL UNIVERSITY LIBRARIES IN NORTH-CENTRAL ZONE, NIGERIA” BY **SAIDU DANJUMA** meets the regulations governing the award of Master degree in Library and Information Science, Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this work to my entire family.

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I wish to tender my utmost and truthful gratitude to God, the Almighty. He has made all things beautiful in His time. He is the giver of life and the reason for my existence. He knew me right from the womb and also knew what would become of me. He is the true one that offers knowledge and gives wisdom to mankind. Thank you, God.

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Abstract

Multimedia resources are also a major contributor to knowledge generation which serves a wide spectrum of academic library users. Providing multimedia contents for the enhancement and wholesome information resource delivery for information users will be most appropriate for academic libraries to keep up with trends in the information world. The purpose of undertaking the study was to look critically into the effective management of multimedia resources by staff in Federal University libraries in North Central Zone, Nigeria. In the light of achieving the aim of the study, five research questions were raised to evaluate critically the position of the study and draw out reasonable solution to the study at hand. These includes: What types of multimedia resources are available in North Central Federal University Libraries in Nigeria?, what are the methods used in acquiring multimedia resources in North Central Federal University Libraries in Nigeria?, what facilities are available for organizing multimedia resources in North Central Federal University Libraries in Nigeria?, how are multimedia resources preserved by staff of North Central Federal University Libraries in Nigeria?, what are the challenges to management of multimedia resources by staff of North Central Federal University Libraries in Nigeria? The study reviewed literature works from different scholars that have contributed immensely to the study of the management of multimedia resources in various areas of discipline, particularly library and information science. The research adopted both qualitative and quantitative research methods (Mixed Approach), the sample size were drawn from the whole population from the multimedia units in North Central Federal University Libraries in Nigeria and data were collected with the aid of structured questionnaires and semi-structured interview question were used to elicit information from respondents, simple frequency and percentage were employed for the analysis. The study revealed that multimedia resources are available, it also revealed the various methods used in the acquisition of multimedia resources, it also showed the facilities available for managing multimedia resources, it revealed the ways in which these multimedia resources are preserved as well as the challenges facing the effective management of multimedia resources by staff of North central Federal University in Nigeria. It therefore recommends that Staff should be adequately trained and qualified enough to handle and manage multimedia resources in line with a well-functioning Internet facilities and uninterrupted power supply should also be put in place so as to help facilitate proper management of multimedia resources in Federal University libraries in North Central Zone, Nigeria.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The call for learning variety is all-encompassing as society experiences constant change in Information and communication Technology. Consequently, this has signaled change and transformation in the learning and teaching environment to shape researchers in this knowledge-based society. Multimedia may be the solution to the problem of transitioning from old traditional learning to learning in an online networked library environment. Multimedia resources can be in words, text and voice over, sound effects, music, live-action, still, and animated images, and an interface that lets the person be either a passive Learner or an inquisitive user (Lester, 2015).

Multimedia is a blend of diverse content systems such as text, audio, images, animations, video and interactive content. In other perspective, it refers to the progressive or concurrent use of diversity of media formats like individuals, text, visuals, movement, sound, and manipulative, in a specific presentation or personal study. Besides, sight and sound could be viewed as the combination of various advanced media including text, pictures, sound and video, into a consolidated multi-sensory application (Oshinaike and Adekunmisi, 2012). Shuell and Ferber (2010) expressed that multimedia envelops preparing, age, control, stockpiling and support framework, and the resources could contain text records, actual pictures, video, sound, data sets, appropriately connected to various sites and simple admittance to web indexes existing on the Internet.

Dadzie (2015) is of the opinion that multimedia resources are vital tools for research which supplement print-based resources in any traditional library. Recently, e-journals have become widely popular for academic library patrons. This describes the reason why university libraries are

continuously motivated in the provision of Multimedia resources to support teaching and research activities. Despite that, subscription to print or Multimedia resources are quite expensive and the continual provision of Multimedia resources in particular, is greatly dependent on the sustainability of the technological and infrastructural development in a library. More so, continual decline budgets for libraries, the need to take full advantage of the use of Multimedia resources to rationalize the financial investment involved in the management of such systems in academic libraries becomes very imperative.

The management of Multimedia resources is very essential in today's librarianship as most of the resources in print form now also come with a soft copy attached and thereby needs to be documented. The utilization of Multimedia resources enhances access to information that might be restricted to patrons due to geographical location or finances. Furthermore, they are sources of current information because they are regularly updated. Multimedia resources offer broad links to explore additional resources or related content through their various search techniques. Consequently, Multimedia resources are user friendly and suitable for researchers and students , since users conveniently access information from the library , internet cafe', offices and even from the comfort of their homes at any time of the day. Multimedia resources are more captivating and reach their subscribers than the conventional documents. Multimedia resources also address the missing issue that library acquisition divisions regularly face. Articles in Multimedia designs are downloadable and printed simultaneously subjected to rights and authorizations. This is of extraordinary advantages to readers. This gives a clarification for the numerous reasons e-diaries, online data sets, digital books, electronic assets and an assortment of other Multimedia assets are quick supplanting the conventional print assets in current libraries (Mohamed, 2011).

Users of information resources should be given options in terms of access and presentation of information in the best way they can understand it. For information and learning system to be

effective the users should be provided with multi-channel information resources that satisfy users' diverse requirements of access and presentation for enhanced understanding of the information communicated.

1.1.1 Multimedia as Information Resources

Multimedia is capable of transmitting information via its ability to make it alive, thereby helping users to make real-world visualizations of information otherwise unseen. Multimedia can stimulate more than one sense at a time; they tend to be more attention-getting and attention-holding. Multimedia resources enable access to all human understanding, anytime, and anywhere in a friendly, multi-modal, efficient and effective way, by overcoming barriers of distance, language and culture, and by using multiple Internet-connect devices (Ubogu, 2006). It is important that the utilization of multimedia innovation has incredible importance in academic libraries. In these libraries, innovation is viewed as a significant player to advance in all perspectives and fundamental segment of learning.

“Multimedia has also been shown to elicit the highest rate of information retention and result in shorter learning and research time”, (Ngozi and Komiya, 2013). With respect to the maker, planning a Multimedia application that is intuitive and multi-tactile can be both a challenge and thrill. Multimedia application offers new ways into the arrangement interaction of the creator and powers that person to address data and information in a superior, new, and imaginative way (Agnew, 2011). “Multimedia information resources could stimulate changes and creates conducive learning environment and make learning more meaningful and responsive to the localized and specific needs of learners”, (Omagbemi, 2014).

Multimedia presentations are possible in many contexts, including the Web, and live theater. Since most website could be seen as multimedia platform, however, any instrument that is helpful in developing such site can be classified as a multimedia software. One of the great

attributes of multimedia is the fact that it is multi sensory, it stimulate the many senses of the audience, it could also be interactive, enabling the users to control the content and movement of information. This has presented significant changes in the exploration framework and effect the manner in which we impart data (Neo and Neo, 2010). Multimedia resources adds new measurement to explore encounters since ideas were simpler to introduce and grasp when the words are supplemented with pictures and video that can create reaction, (Ogunbote and Adesoye, 2016). Expressing further that it has been set up that scientists acquire when an assortment of faculties are occupied with affecting information; and the force of the experience helps to improve on research work by engaging in friendly, passionate and scholarly faculties.

However, the importance of the Multimedia resources cannot be overemphasized, it can be reasoned that every media has its own special characteristic and that using these media in combination may lead to some synergy of effects. It emphasizes on capacity to catch the user's attention, allowing the user to have control in the process of access and retrieval and to some extent allow the user to manipulate data to verify and validate the information. The Multimedia information system resources allow manipulation of data where different effects can be understood and studied in different environments.

Multimedia as an information resource stimulates the information user to access and retrieve even the in-depth information. The Multimedia learning and information system reflects the complexity under which the information user should be able to function in real life, the Multimedia resources supports the researcher's inquiry and performance in information seeking.

1.1.2 Management of Multimedia Resources in Libraries

Management is a field of human conduct where administrators plan, set up, staff, direct, and control human, material and money related resources in an association to achieve the ideal individual and social event targets with ideal profitability and practicality (Subedi, 2013). The executives incorporates the route toward finishing things through and with people. It is the orchestrating and organizing of attempts and the figuring everything out and using assets (both human and material) to accomplish some foreordained objectives.

In a book named 'Establishment of Management' by Robbins and David, (2014), it was communicated that organization as it relates to libraries, is the limit of a custodian to figure out library staff, clients and material assets to accomplish organizational objectives. It is likewise the demonstration of preparing and orchestrating the resources of a library proficiently in savvy approaches to encourage effectiveness in dynamic through arranging of what to choose and get. Management of Multimedia resources incorporates procurement, organizing, staff training, stockpiling and conservation and ensuring that the interactive media assets put away for clients are effectively available.

Management in the library is one of the most imperative activities that are used in prolonging the life of the information resources available for user consumption. The management of Multimedia resources is also important, this should be possible through an assortment of measures focused on both limiting the danger of loss of resources and easing back down however much as could be expected, the cycles of actual decay that influence most Multimedia resources in the library collections. Management of multimedia resources in the library refers to anything that contributes to the physical well-being of resources (Kenedy, 2015). Management of resources are done in many ways such as indirect preservation which includes the building where the resources

are being preserved, the storage method, security against threats to the resources, organization and handling.

Management of Multimedia resources in the library can be seen as a new role for librarians in Nigerian universities. It is a strategically important activity with many practical implications for the library management. It also entails putting together practical aspect of creating or setting up Multimedia for effective performance in the library. All management functions which includes planning, organizing, controlling and directing are essential for effective functioning of the multimedia unit in libraries (Okpara, 2010).

Librarians as information providers are concerned with the availability of resources in the formats suitable to the needs of various types of user, and these must be clearly differentiated. A library exist to cater for its environment, and consequently the wants of every members of that community has to be accommodated, the different category of people, old and young, able and disabled, gifted and backward members of the society. In countries that are in developing stage, the provision of multimedia and their related equipment might be regarded as of great importance than the printed word because the level of literacy is such that oral and visual expressions are very essential for the purposes of communication. Multimedia resources are essential for our social legacy, conveying an immense measure of data that should be saved for some time later. The rich assortment of media articulations in the public arena ought to be reflected in the administrations offered to clients by the libraries. Non-printed materials are notwithstanding, regularly alluded to as Multimedia resources. The evolution of Multimedia has made it very possible for researchers to become more involved in their work.

The acquiring, processing, storage and dissemination of multimedia resources would be meaningless, if no procedures and mechanisms are in place for ensuring their long term

preservation and accessibility by their users. Kahn, (2014) specifies that retention is useless without accessibility. Likewise, capturing, indexing and storing digital content serve little purpose, if it is not readily accessible when required. Acquiring multimedia resources for use in academic library is an area that requires planning and effective coordination, so as to ensure that information users are able to access the resources they need. The most important issue to be addressed when planning to introduce multimedia resources is whether the existing technical infrastructure is suitable.

In the management of multimedia resources various issues need to be critically examined. These relate to the integrity, security, authenticity and accessibility of the resources (Mnajama, 2011). Multimedia resources are considered to have integrity if its content had not been altered from the time of its creation up to disposition; it is trustworthy if it has been stored in a secured environment and authentic if it has the ability to show what it purports to be.

According to Katuu (2016), to manage and provide access to authentic Multimedia resources in the long term, various strategies can be used to deal with this, which includes: *Emulation*; This is where hardware and software facilities are specially equipped to imitate older or obsolete hardware and software. Another one is *Migration*; this includes the intermittent exchange of computerized materials from one equipment/programming design to another or from one age of PC innovation to an ensuing age. Katuu (2016) showed that different exercises might be attempted including: move of assets to paper or microfilm, move to programming free arrangements, hold assets in their local configuration, relocation of assets to a framework that is consistent to open frameworks standard, store assets in more than one format, and create surrogates for the original resources.

1.2 Statement of the Problem

Libraries now acquire, organize, and preserve multimedia resources for scholarly work. Madu (2000) believed that libraries, as information providers, ought to be concerned about the arrangement of data in the libraries generally to fit the varying necessities of different kinds of client, every one of which should be unmistakably separated. It thereby becomes very pertinent for any library that wants to continue to remain relevant and meet the information needs of its patron to acquire multimedia information resources, as well as facilities to effectively use them

The researcher having visited four of the Federal University Libraries in North-Central States, Nigeria (Federal University Lokoja library, University of Abuja library, Federal University Lafia library and Federal University of Technology Minna library) and interacted with a few library staff noticed the negligence in managing multimedia resources, in spite of the growing number of multimedia resources available, some of which are included in recent books acquired, as well as indigenous multimedia information resource acquired by these libraries with huge sum of money.

Thus the study investigates the management of Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria with a view of identifying the management of these multimedia resources and making appropriate recommendations to fill the gap.

1.3 Research Questions

This study has the following research questions:

1. What types of Multimedia resources are available in Federal University Libraries in North-Central Zone, Nigeria?
2. What are the methods used in acquiring Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria?

3. What facilities are available for organizing Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria?
4. How are Multimedia resources preserved in Federal University Libraries in North-Central Zone, Nigeria?
5. What are the challenges to management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria?

1.4 Objectives of the Study

This study has the following objectives:

1. To ascertain the types of Multimedia resources available in Federal University Libraries in North-Central Zone, Nigeria.
2. To know the methods used in acquiring Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.
3. To identify the available facilities for organizing Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.
4. To ascertain how Multimedia resources are preserved in Federal University Libraries in North-Central Zone, Nigeria.
5. To find out the challenges to management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.

1.5 Significance of the Study

The main beneficiary of this research work is the library management as the finding helps the library manage the multimedia resources such that it is utilized by library patrons, thereby justifying the huge amount of money spent on acquiring these resources.

The library patrons stands to benefit immensely from the outcome of this study as it provides additional quality information. Furthermore, the findings and recommendations of this research contributes to the existing knowledge.

1.6 Scope of the Study

This research covers the Management of Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria. The research only focused on the library staff working in the multimedia unit of North-Central Federal University Libraries in Nigeria.

1.7 Operational Definition of Terms

Below are operational definition of terms as used in this study

Management: The process of acquiring, organizing and preserving of Multimedia Resources

Multimedia resources: Digital media such as text, images, sound and video in an integrated multi-sensory interactive application

Multimedia: Platform hosting Multimedia resources

Multimedia Technology: Devices used to access Multimedia resources

Library Staff: Staff working in the multimedia unit of the library

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CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviewed previous literature that relates to the field of research under the following sub-headings:

- 2.2 Types of available Multimedia resources in the library
 - 2.3 Available facilities for Organizing Multimedia resources in the libraries.
 - 2.4 Acquisition of Multimedia resources in Libraries.
 - 2.5 Preservation of Multimedia resources in libraries.
 - 2.6 Challenges to effective management of Multimedia resources in libraries.
 - 2.7 Summary of the Review.
- #### 2.2 Concept of Multimedia Resources

Multimedia has been defined in a number of ways by different scholars, Elsom-Cook (2014) defined Multimedia as the blend of an assortment of correspondence channels into a coordinate informative experience for which incorporated cross-channel language of understanding doesn't exist. This definition gives route for two approaches; one is that it's termed "multiple-media" utilization and the other in which a combination of different channels acquires unification as a medium.

According to Reddi (2013), that Multimedia resources can be characterized as mix of various media component (sound, video, illustrations, text, animation, and so forth) into one synergistic and representative whole that bring about a larger number of advantages for the end client than any of the media components can give independently. Basically "Reddi" attempts to stress more on clearness and illuminates segment of sight and sound taking a framework

hypothesis point of view; it additionally reveals to us that the general adequacy of multimedia is better than any one component of it.

Multimedia basically implies various or numerous medium. The term medium infers the presence of a channel through which messages or data go through. Media hence alludes to numerous channels through which we can send, get, present, store or see message or data. Multimedia alludes to the mix of various media to adequately pass on a message (Dorin and Cormack, 2014). As indicated by Marshal (2013) sight and sound assets is worried about the PC controlled incorporation of text, designs, drawings, still and moving pictures (video), animation, sound and some other media where each sort of information can be represented, stored, communicated and prepared digitally.

In any case, it is important to perceive that interactive multimedia resources includes the utilization of PCs to introduce text, illustrations, video, activity and sound in a coordinated way (webopedia 2013). Multimedia resources assumes significant part in instruction. They can be utilized to prepare reading materials and furthermore help in PC based training. Mayer (2015) characterizes Multimedia as handling and introduction of data in a more organized and justifiable way utilizing more than one media like content, designs, animation, sound and video. Accordingly multimedia systems are those PC platform and programming apparatuses that help the intuitive utilization of text, realistic, liveliness, and video. As such, a PC equipped for dealing with text realistic, sound liveliness and video is called interactive media PC. Ayo, (2013) defined multimedia as the conveyance of data in instinctive, multi sensory ways, through incorporation of particular media like content illustrations, PC activity, motion video and sound in a single presentation which is PC controlled.

According to Lester, (2016) Multimedia resources may be the solution to the problem of transitioning from face-to-face learning to learning in an online networked library environment. Although often referred to by writers and producers as if they are the same medium, multimedia and Multimedia are very different. Bass, R. (2014), Multimedia resources has been called a "hybrid technology." It consolidates the capacity and recovery abilities of PC data set innovation with cutting edge instruments for survey and controlling these materials. Multimedia has a variety of undertones, and definitions differ contingent upon the unique circumstance. For the reasons for this Guide, with regards to upper auxiliary and post secondary training, Multimedia is characterized by three standards:

- Multimedia resources is any bundle of materials that incorporates a mix of writings, illustrations, actually pictures, animation, video, and sound;
- These materials are bundled, coordinated, and connected together somehow or another that offers clients the capacity to peruse, explore and analyze these materials through different looking and ordering highlights, just as the ability to clarify or customize these materials;
- Multimedia is consistently "user focused". In Multimedia, the user controls the experience of perusing the material by having the option to choose among numerous options, picking extraordinary ways and successions through the materials. One of the vital highlights of Multimedia is the capacity to explore through material in the manners that are generally important for singular clients.

2.3 Types of Available Multimedia Resources in Libraries

The resources provided by the academic libraries comes in diverse formats, hence the library has Multimedia resources available for users. Multimedia resources according to Saye, (2015) are the resources that are produced through some electronic medium and made accessible to

a wide scope of users both online and offline by means of some electronic moving machine or the Internet. These resources in its ambit include all kinds of digital collections in the form of e-books, online videos, audios, digital graphics images, animations, online-databases, e-journals, Online Public Access Catalogue (OPAC) and the Internet. Multimedia resources which according to Saye (2015) has to be made available to the users due to the fact that the availability of Multimedia resource is paramount to learning process and the improvement of students' academic performance and research purpose. Popoola (2014) certified that the Multimedia resources and services accessible in libraries should be equipped for supporting research activities among the students and employees. This is essential as the development of exploration in all fields of human undertaking is getting progressively definite and modern. Simultaneously, it is additionally essential that the ability of the resources accessible in the library to fulfill the exploration and scholarly requirements of the undergraduates and employees lies on its availability and accessibility.

The requirement for multimedia library resources accessibility and openness in academic libraries has for some time been recognized. Academic libraries encourage information literacy and provide resources to students, researchers and staff. These academic Libraries give various multimedia services to users, tending to their various requirements, qualities, and interest (Andaleeb, 2014). Considering this, it is ordinary that librarians and information experts make an agreement between unequivocal investigation and data needs and a usable collection of multimedia resource materials to address the issues of the institution and that of the users. According to Mason, (2012) an academic library has the mission to manufacture and keep an assortment that will support and update the instructional necessities of the organization. He also placed that academic libraries are to offer induction to all sources of information in all formats.

Multimedia information resources accessibility, openness and use are significant variables in information securing, learning and exploration. In fact, each insightful library regardless of size is relied upon to have sufficient multimedia information resources accessible for its local area for perusing, learning and exploration. Aina, (2015) communicated that transparency chooses the speed at which information resources in any setup is gotten. Thus, great data assets should be gotten and recuperated to meet the ideal need. University libraries maintain university in delivering their commitments by obtaining all the significant information resources basic for supporting the teaching, learning, research and the educational service elements of their university. A comprehension of library use would help the arranging of future services as well as empower expanded support among students and researchers. Frascotti, et.al (2011) established that student will utilize a greater amount of the library in the event that they can get their work done, access information, utilizing general multimedia materials.

2.4 Available Facilities for Organizing Multimedia Resources in Libraries

The turn of events and accessibility of Information and Communication Technologies (ICTs) facilities for getting Multimedia resources in libraries have today not just expanded and widened the effect of information resources and carried them to their doorsteps, yet additionally positioned more accentuation on compelling and productive administrations using Multimedia. Their applications in libraries have without a doubt proceeded to ease and advance fast and opportune admittance to and move of Multimedia resources that are discovered apportioned round the globe. In his investigation on the accessibility and utilization of ICTs in collection management. Nwalo (2013) recorded the accompanying ICT facilities utilized in getting the Multimedia resources in academic universities to incorporate; PCs, web and phones. deWatteville and Gilbert (2014) opined that the ICT incorporates; Computer, Internet, Digital camera, Webcam,

Smart Card, Scanner, E-Books, Printers, Electronic Journals, WEB-OPAC, Animation, E-Mail, CD-ROM, DVD, RFID Technologies.

Popoola and Haliso, (2012) indicated those facilities for organizing multimedia resources; Book recordings, CD-ROM, databases, Internet/E-mail, video tapes/tapes, diskettes, attractive plate, PCs, miniature structures e.t.c.

As per Afolabi and Abidoeye, (2012) in their investigation on the integration of information and communication technology in library activities towards viable library administrations in scholarly tertiary establishments arranged types of ICTs facilities for accessing Multimedia resources into the following:

1. Sensing Technologies: This hardware accumulates information and makes an interpretation of them into a structure that can be perceived by the PC. These incorporate sensors, scanners, keyboard, mouse, electronic pen, touch or digital boards, standardized identification sensors (bar codes) or readers, voice acknowledgment framework, and so forth

2. Communication Technologies: These are gear that empowers information to be moved from the source to user. It also endeavors to beat basic blocks to information move like speed and distance, a part of these include: copiers (fax), telecommunication system, telephone, electronic mail, electronic notification sheets, etc

3. Display Technologies: These are output gadgets that structure the interface between detecting, correspondence and examining advances and human client. They include: PC screen, printers, TV, and so on

4. Analysis Technologies: These are the innovations that help in the examination or question of information, investigation and top to bottom inquiry for answers from easy to complex marvels in

exploration techniques. A total arrangement of a PC framework, could be a mini, micro, centralized server or super scamper.

5. Storage Technologies: These innovations encourage the proficient and compelling stockpiling of information in a structure that can be effectively gotten to. They include: attractive tapes, circles, optical disks, tapes, PC hard drive, library website, and so forth The above view clarifies that PCs, DVDs, CDs, web and phone among others, were the sort of ICTs accessible for the management of library resources.

2.5 Acquisition of Multimedia Resources in Libraries.

Acquiring information resources is an important exercise for libraries. The emergence of the digital paradigm, has brought about the necessity of acquiring Multimedia resources in the library (Carr, 2015). Acquisition is the way toward getting resources for the library collection whether by purchase, as gift or through exchange programs (Evans, 2013). Whenever assets have been selected by staff or requested by clients, the acquisition interaction starts that is finding the correct material, requesting it and preparing the material and administrative work once they arrive. In spite of the fact that obtaining methods may vary upon the library's central goal and objectives, all libraries share a few objectives practically speaking. As indicated by the Arizona State library (2011) these objectives incorporate procuring information as fast and economically as could be expected and limiting the measure of administrative work, topping and follow off required. Successful working associations with vendors are vital also.

The nitty-gritty of a successful procurement of Multimedia resources incorporate collection orders, looking and checking bibliographic data, picking a possibility for putting in requests, doling out a buy request, submitting a request, bookkeeping, getting resources, returning material if necessary, preparing the resources and making payment. A portion of these securing cycles

probably won't have any significant bearing to all information resources. The sluggish pace of procurement measure in the nation has likewise made an issue in getting quality Multimedia resources for academic libraries. Haider, (2015) as referred to by Ameen, (2014) addresses the issue of deficient collection in University libraries and recommend methods of improving collaboration. He discovered that securing of resources is generally founded on membership (either straightforwardly or through neighborhood databases).Acquisition through this strategy is completely coordinated and constrained by accessibility of resources in the database, leaving just a restricted efficient collection.

Flatley and Prock, (2015) in their research article emphasized the need for a structured selection process with consistent selection criteria for acquiring Multimedia resources in academic libraries. Chen, Xiaotianet. al. (2012) discussed current practices for the cataloging of Multimedia resources and consortia in academic libraries. Cole, Louise, (2015) highlighted the administrative challenges faced by librarian while managing Multimedia resources in academic libraries especially audio-visual materials. He also suggested some excellent practices for the efficient management of these multimedia resources.

According to Vashishth, (2011) the principle issues in securing of Multimedia assets in scholastic library climate to be citation framework, cost factor, pace of library markdown, sloppy book exchange and update books. He likewise called attention to that absence of ICT framework, insufficient assortment, and absence of system for preparing library work force are other serious issues being looked by curators. Iwhiwhu and Eyekpegaha, (2015) distinguish insufficient ICT foundations, labor, reserve, deficient government backing and absence of client instruction as the significant difficulties confronting computerized libraries in Nigeria. Singh, (2017) accentuated the requirement for advanced safeguarding with its targets in scholastic library conditions.

2.6 Preservation of Multimedia resources in Libraries

Preservation of Multimedia assets is getting significant, as they are getting increasingly more mainstream in the advanced world. Preservation is the methods by which records are ensured for the utilization of present and people in the future. This should be possible through an assortment of measures focused on both limiting the danger of loss of resources and easing back down however much as could reasonably be expected the processes of physical deterioration that affect most archives and library collections. Arora, (2014) affirms that digital preservation referred to series of managed activities designed to ensure continuing access to all kinds of resources in digital formats for as long as possible and to protect them from media failure, physical loss and obsolescence. It could be seen as the ability to maintain, display, retrieve and use of digital collections in the face of rapidly changing technology. It is also referred to series of managed activities designed to ensure continuing access to all kinds of resources in digital formats for as long as necessary and to protect them from media failure, physical loss and obsolescence (Rahman and Muhammed, 2012).

According to Kenedy, (2010) Preservation of multimedia resources in federal universities are done in many ways such as indirect preservation which includes the building where the resources are being preserved, the storage method, security against threats to the resources and handling. Ogunmodede and Ebijuwa, (2013) stated that another way most universities preserve resources is through substitution, which is done by making copies of original resources and allowing access to only the photocopies. This method reduces the wear and tear of resources.

Olatokun, (2015) affirmed the different procedures utilized in safeguarding and protection of library collections in some selected Universities in Nigeria. It inspected the reasons for weakening, examples and procedures used to control the reasons for decay, and imperative restricting compelling safeguarding and preservation. The discoveries of the investigation

uncovered that protection and preservation procedures received in the libraries were not viably utilized. The discoveries likewise uncovered that cleaning and dusting of library resources were the usually utilized procedure. Further the outcomes showed that a portion of the libraries received and utilized some advanced safeguarding strategies yet were as yet not compelling. He likewise saw that most libraries in Nigeria substituted photocopies of restricted materials.

Preservation of digital contents (Multimedia Resources) is rapidly becoming a principal medium to create, store contents and disseminate information. It is seen as born digital materials that are created originally in digital form and never existed in analogue form (that is born digital) as well as those converted from analogue (printed documents) to digital by the use of cameras, scanners and other imaging technologies for access and preservation purposes.

Gbaje, (2013) defined digital preservation as the arrangement of activities and intercessions needed to guarantee proceeded and solid admittance to validate advanced Information resources however long they are considered to be of worth. Digital preservation includes various exercises and methodologies for guaranteeing that advanced assets are not just put away fittingly. Digital preservation could likewise be viewed as a bunch of cycles and exercises that guarantee proceeded with admittance to data and a wide range of records, assets, logical and social legacy existing in advanced arrangements. This incorporates the conservation of materials coming about because of advanced reformatting however especially data that is conceived computerized and has no simple partner.

In 2006, the Online Computer Library Center (OCLC) 3 built up a four-point technique for the drawn out protection of computerized objects that comprised of:

- Assessing the dangers for deficiency of substance acted by innovation factors such like regularly exclusive record organizations and programming applications.

- Evaluating the computerized content items to figure out what type and level of configuration transformation or other safeguarding activities ought to be applied.
- Determining the proper metadata required for each item type and how it is related with the articles.
- Provide admittance to the substance.

Katuu, (2012) further settled that to save and give admittance to credible advanced Multimedia assets in libraries in the long haul, different techniques can likewise be utilized to manage this including:

1. Copying: This is the place where equipment and programming offices are uniquely prepared to mimic more seasoned or out of date equipment and programming
2. Movement: This includes the intermittent exchange of computerized materials from one equipment/programming design to another or from one age of PC innovation to a resulting age.

Altogether these, as per Katuu, different exercises might be attempted including:

- Transfer assets to paper or microfilm
- Transfer to programming autonomous arrangements
- Retain assets in their local organization
- Migration of assets to a framework that is agreeable to open frameworks standard
- Store assets in more than one organization
- Create proxies for the first assets

International Records Management Trust-IRMT,(2014) expressed that advanced innovation represents a few difficulties in the conservation of computerized assets, these are among other innovation comes in various arrangements, the expense of keeping up worldwide principles of advanced organizations is costly as it is regularly founded on paying for moves up to coordinate the innovation both the equipment and programming. This implies that establishments are constantly compelled to change the offices so they can meet different prerequisites like programming and equipment. Advanced conservation assumes that there ought to be consistent and nonstop learning with respect to safeguarding staff both in programming information just as in equipment. This is on the grounds that advanced conservation techniques are continually changing relying upon the idea of the equipment and programming applied.

2.7 Summary of the Review

This chapter reviews various researches conducted worldwide that are related to the Management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. From the review, it was evident that Multimedia resources have an important role to play in libraries and to an extent that the success and strength of any library is dependent upon acquisition, organization and preservation of Multimedia Resources. From the review, it became evident that the Multimedia resources are on raising competition with other resources due to globalization and advances in ICTs which have created a paradigm shift where University Libraries have to redesign their principles and practice in such a way that library customers/researchers are highly satisfied.

However, Federal University Libraries in North-Central Zone, Nigeria have over the years been acquiring Multimedia resources which in some cases comes with the printed materials, this is supposed to effectively manage facilitates and build profitable relationships with researchers but

isn't actually doing that, The literature reviewed did not fill this gap as to why, which my research intends to, hence, the viability of the research.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research method adopted in the conduct of the research. It is subdivided into the following topic:

- 3.2** The Research Method Adopted
- 3.3** Population of the Study
- 3.4** Sample Size and Sampling Technique

3.5 Instrument for Data Collection

3.5.1 Semi-structured Interview

3.5.2 Structured Questionnaire

3.6 Rigor in Qualitative Research

3.6.1 Reliability of the Questionnaire

3.7 Procedure for Data Collection

3.8 Procedure for Data Analysis

3.2 Research Method Adopted

This study was designed to investigate the Management of Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria. The study adopted both qualitative and quantitative methodology (Mixed Approach). This is because qualitative research method is geared towards comprehension of the basic reasons and motivations for activities and set up how individuals decipher their encounters and their general surroundings. Qualitative research depends on purposes for different aspect of behaviour (Adam and Brace, 2006; Cooper and Schindler, 2003). It includes a top to bottom comprehension of human conduct and the reasons that administer human conduct. The qualitative approach for the most part discloses the comprehension

of how the items thoughts and how they feel with respect to the subject being scrutinized, as opposed to estimating how to a great extent they are held (Adams and Brace, 2006). Quantitative research method is also found appropriate because of some other types of data the researcher intends to collect which is quantitative in nature. All of these methods will be useful in gaining an insight into investigating the management of multimedia resources by library staff in North-Central States Federal University Libraries in Nigeria.

3.3 Population of the study

The population of this study comprised of the Library staff working in the multimedia unit in Federal University Libraries in North-Central States, Nigeria. The North central region has seven (7) Federal Universities Libraries, namely: Federal University Lokoja Library, Federal University of Technology Minna Library, University of Jos Library, Federal University Lafia Library, University of Ilorin Library, University of Abuja Library, and University of Agriculture Makurdi Library. The rationale behind the choice of this population is the fact that they engage directly in managing these multimedia resources.

Table 3.3: Population of Study

| S/N | North-Central States Federal University Libraries in Nigeria | Size |
|-----|--|------|
| 1. | Federal University Lokoja Library | 2 |
| 2. | Federal University of Technology Minna Library | 3 |
| 3. | University of Jos Library | 0 |
| 4. | Federal University Lafia Library | 0 |
| 5 | University of Ilorin Library | 9 |
| 6 | University of Abuja Library | 0 |
| 7 | University of Agriculture Makurdi Library | 2 |
| | Total | 16 |

Source: Individual Libraries

3.4 Sample Size and Sampling Technique

The population of library staff in the multimedia unit of these institution libraries put together is not more than what the researcher can cover within the shortest period of time, therefore, the researcher decides to use the entire population of the staff in charge of multimedia resources. University of Abuja library, Federal University of Lafia Library, and University of Jos library have no multimedia unit, hence the researcher worked with the four (4) remaining Federal University Libraries in North Central States in Nigeria. The researcher employed the Convenience Sampling method

Table 3.4: Sample Size

| S/N | North-Central States Federal University Libraries in Nigeria | Size |
|-----|--|------|
| 1. | Federal University Lokoja Library | 2 |
| 2. | Federal University of Technology Minna Library | 3 |
| 3. | University of Ilorin Library | 9 |
| 4. | University of Agriculture Makurdi Library | 2 |
| | Total | 16 |

Source: Individual Libraries

3.5 Instrument for Data Collection

The instruments used to collect data for this study is structured questionnaire and semi-structured interview with digital recorder to record the interview process.

3.5.1 Semi-structured Interview

The semi-structured interview involves the researcher personally interviewing staff of the multimedia unit. Interviews are qualitative research tools that are meant to explore in-depth, of a respondent's perception, understanding, feelings, and perspectives. Aina (2004), further added that, this process has the advantage of encouraging the researcher to explain confusing or ambiguous research phenomenon in detail. Poindexter & McCombs (2000) submit that "one-on-

one interviews are most beneficial as a research tool when the topic being explored involves change, novelty, or uniqueness and the people interviewed play influential or unique roles”

The semi-structured interview is a tool which is meant to guide the researcher based on a set of predesigned questions and aid the whole process of the interview. The semi-structured interview is made up of structured open ended questions, this semi-structured interview is meant to offer an opportunity to the library staff in the multimedia unit to talk and express their ideas.

This will enable the researcher to explain or elaborate on the research question four (4) and five (5) that are not well understood by the respondents. The researcher will systematically question the staff of the multimedia unit. The interviews will be audio recorded. Lofland and Lofland (1995) recommend, considering one-on-one interviews has the advantage of allowing people more time to reflect and recall experiences, something a person mentions can spur memories. Also, because it is possible to allow moments of silence, and it takes time to listen, participants can rethink and amend initial statements.

3.5.2 Structured Questionnaire

A self-developed structured close ended questionnaire was used to collect data for research question one (1), two (2), three (3), and five (5). Osuala, (2005) stressed that questionnaire is more economical for reason of time and directly associated with survey research method. The questionnaire will be divided into sections A, B, C, D, and E. Section A will have to do with demographic information of the respondents while section B, C, D, and E will have to do with the research questions as follows: Section B: Types of Multimedia resources that are available in North Central Federal University Libraries in Nigeria. Section C: Availability of facilities for organizing multimedia resources in North-Central Federal University Libraries in Nigeria. Section D: Methods of acquiring multimedia resources in North-Central Federal University Libraries in

Nigeria. Section E: Challenges to management of multimedia resources by staff of North-Central Federal University Libraries in Nigeria.

3.6 Rigor in Qualitative Research

Any research aspiring to stand up to critical examination, must show reliability and validity. Hence the norm of rigor in qualitative studies, which aids in determining whether same result can be achieved in another study if conducted using the identical research methods, while validity in qualitative research is related to deepening the understanding of the qualitative data. This phase in qualitative research seeks to confirm whether the findings of the study can be relevant beyond the case study, phenomena and context of the research (Yin, 2009). The question of reliability and validity centers around three issues: (a) accuracy in terms of asking the right questions; (b) accuracy in terms of the precision and details of the data; and (c) accuracy in terms of the truthfulness of the information gathered (Blaikie, 2000; Scandura & Williams, 2000; Creswell, 2003; Hardy & Bryman, 2004; Denscombe, 2007).

3.6.1 Reliability of the Questionnaire

The reliability of the instrument was established by conducting a pilot study within one weeks at the Kenneth Dike Library, University of Ibadan, Ibadan, Nigeria Oyo State. Five (5) staff of the multimedia unit of the library multimedia unit was issued the research instrument. The reliability of the questionnaire was determined using a split half technique; here the internal consistency of scores using scores from a single testing was used. A single test was administered but two scores were obtained for each individual, this means that the test was divided into two halves and sub-scores were obtained for each half. The two sub-scores were then correlated to get the reliability co-efficient alpha of the scale to be 0.81. This means that the instrument is reliable because, the co-efficient is above 0.5. (for the output of this result, see Appendix IV on page 73).

3.7 Procedure for Data Collection

The researcher had interview appointments with the staff of the multimedia unit of the institutions under study, the researcher travelled to, and as well put a call through to the various institutions to seek for an appointment and approval to conduct the interview. The researcher achieved success in conducting the interview using the interview schedule with the staff of these institutions. The researcher spent a total of three weeks in the observation of processes and data collection.

The questionnaire on: Management of Multimedia Resources by Library Staff in Federal University Libraries in North-Central States, Nigeria was administered by the researcher. In order to ensure effectiveness and efficiency, the researcher employed four (4) research assistance. The researcher with four assistants, one for each university library assisted in administering and retrieving the questionnaire from the respondents within four (4) weeks.

3.8 Procedure for Data Analysis

Data analysis is defined as working with data, organizing them, breaking them into manageable units, coding them, synthesizing them, and then searching for a suitable pattern. Which aims at discovering new patterns, themes and meanings (Bogdan and Biklen, 2003). The interviews was analyzed using a systematic method of thematic data analysis as informed by (Clark and Braawn, 2015). This technique consider systematic identification proof of members' interpretations and constructs which will at that point layered with the researchers' own understandings, translations, and constructs. It is likewise expressed by Thomas (2003) that the strategy is straightforward and straight forward approach for driving discoveries (topics, ideas) from crude information through detailed readings of the information records. Through this methodology, the specialist decided the significant topics, and chooses the information to help, portray and get importance from them. In this study interview was recorded and transcribed.

The quantitative data collected for this study was organized, analyzed and presented using tables, in line with the research questions. Statistical Package for Social Sciences, (SPSS) was used to analyze the data collected. Descriptive statistical tools such as frequency and percentage was used to analyze the data in relation to the research questions.

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CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data collected for the study. Analysis and interpretation of the data were also presented. Questionnaires were drafted for research question one (1), two (2), three (3) and five (5), while research question four (4) has an Interview guide.

4.2 Response Rate

A total of sixteen (16) copies of questionnaire were distributed to the respondents in the institution under study. The total 16 copies of the questionnaire distributed were returned duly completed and found usable for this study. The response rate was realized due to the fact that research assistants were employed in the respective institutions studied. Besides, the respondents were given up to four weeks within which to complete and return their copies of questionnaire. The response rate is shown on table 4.2

Table 4.2: Response Rate

| S/N | Staff in the Multimedia Unit | Questionnaire Distributed | Questionnaire Returned | % of Questionnaire Returned |
|--------------|--|---------------------------|------------------------|-----------------------------|
| 1. | Federal University Lokoja Library | 2 | 2 | 12.5% |
| 2. | Federal University of Technology Minna Library | 3 | 3 | 18.7% |
| 3. | University of Ilorin Library | 9 | 9 | 56.3% |
| 4. | University of Agriculture Makurdi Library | 2 | 2 | 12.5% |
| Total | | 16 | 16 | 100% |

From Table 4.2, it can clearly be seen that a response rate of 100% was obtained. That showed that there was no variation in the response rate from the respondents in the studied area. The no variation in the response rate is due to the fact that the population size of respondents of

these institutions studied is not much. The table revealed that University of Ilorin has higher population of staff in the multimedia unit of these institutions libraries.

4.3 Descriptive Analysis

This section presents the data collected and analyzed using descriptive statistics. The data analyzed in this section was collected using four (4) research questions which guided this study, frequency scales, and percentages were used in the computation of the data collected and analyzed in this section.

4.4 Types of Multimedia Resources that are Available in Federal University Libraries in North-Central Zone, Nigeria.

The researcher attempted to identify various types of multimedia resources that are available in Federal University Libraries in North-Central Zone, Nigeria. In order to achieve this, list of multimedia resources was outlined for the respondents to tick as many as available in their respective institutions.

Table 4.3:Types of Multimedia Resources available in Federal University Libraries in North-Central Zone, Nigeria.

| S/N | Available Multimedia Resources | Federal University Libraries in North-Central Zone, Nigeria | | | | | | | | | | | | Total (A) | |
|-----|--------------------------------|---|-------------|-------------|---|-------------|-------------|----------------------|-------------|-------------|------------------------------------|-------------|-------------|-----------|-------------|
| | | Federal University, Lokoja | | | Federal University of Technology, Minna | | | University of Ilorin | | | University of Agriculture, Makurdi | | | | |
| | | A | R | UN | A | R | UN | A | R | UN | A | R | UN | Freq | % |
| 1 | E-Text | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 3 (18.7%) | 0 (0.0%) | 0 (0.0%) | 8 (50%) | 1 (6.3%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 15 | 93.8 |
| 2 | Video | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 3 (18.7%) | 0 (0.0%) | 0 (0.0%) | 9 (56.3%) | 0 (0.0%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 16 | 100 |
| 3 | Audio | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 3 (18.7%) | 0 (0.0%) | 0 (0.0%) | 9 (56.3%) | 0 (0.0%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 16 | 100 |

| | | | | | | | | | | | | | | | |
|---|-----------------------|-------------|-------------|-------------|--------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|-------------|-----------|-------------|
| 4 | Digital Graphic Image | 1 (6.3%) | 0 (0.0%) | 1 (6.3%) | 2 (12.5%) | 1 (6.3%) | 0 (0.0%) | 7 (43.5%) | 1 (6.3%) | 1 (6.3%) | 1 (6.3%) | 1 (6.3%) | 0 (0.0%) | 11 | 68.8 |
| 5 | Animation | 1 (6.3%) | 1 (6.3%) | 0 (0.0%) | 2 (12.5%) | 1 (6.3%) | 0 (0.0%) | 7 (43.5%) | 2 (12.5%) | 0 (0.0%) | 1 (6.3%) | 1 (6.3%) | 0 (0.0%) | 11 | 68.8 |

Key: A=Available, representing Highly Available and Available. R= Rarely Available, representing Rarely Available and Not Available. While UN=Undecided representing only Undecided.

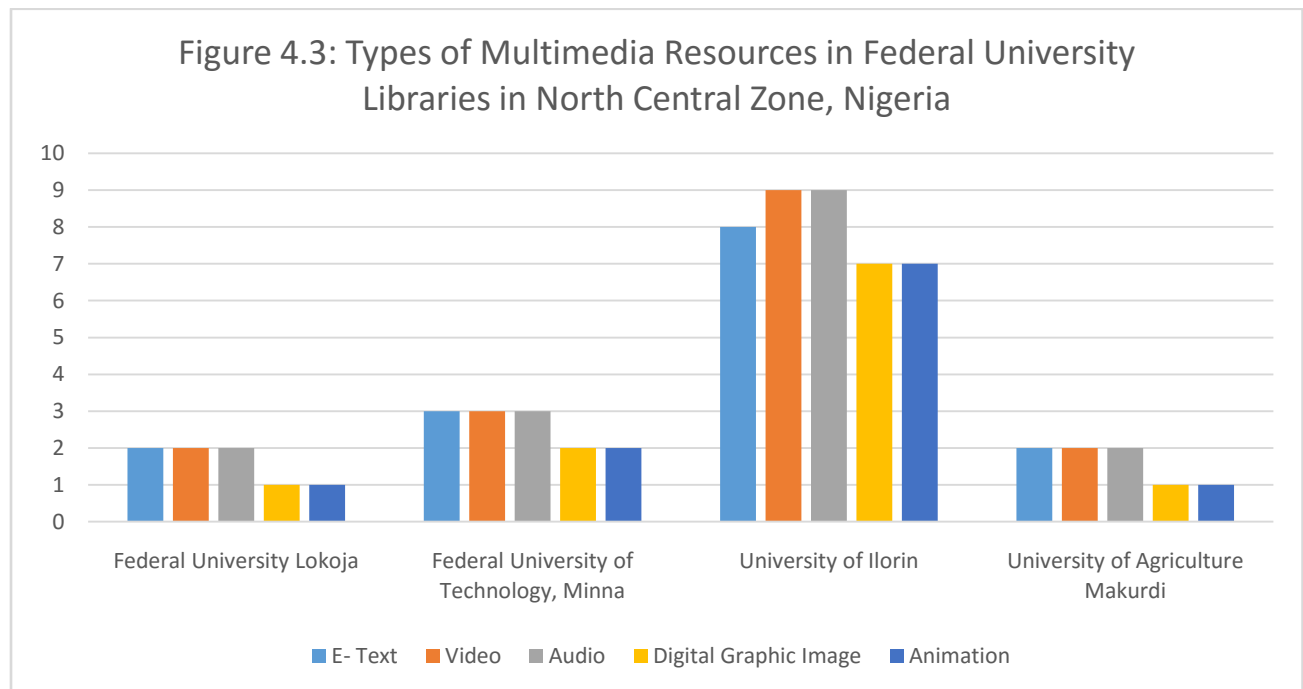


Table 4.3 and figure 4.3 present the types of multimedia resources available in Federal University Libraries in North Central Zone, Nigeria. From the table, it was discovered that; E-Text with the frequency and percentage of 15(93.8%) is available in Federal University, Lokoja, Federal University of Technology, Minna, University of Ilorin, and University of Agriculture Makurdi library. Likewise, videos are available in the four studied area with frequency and percentage of 16(100%). All the respondents indicated that audio is also available as a multimedia resource in four North-Central Federal University libraries with frequency and percentage of 16(100%). Digital Graphic Image with 11(68.8%) and animation with frequency and percentage of 11(68.8) were also indicated as types of multimedia resources in Federal University Libraries in North-

Central Zone, Nigeria. The above results indicate that the various multimedia resources (E-texts, Audio, Videos, Animations and Digital Graphic Images) are available in Federal University libraries in North-Central Zone, Nigeria. This is in line with Popoola (2014) view, who asserted that the Multimedia resources available in libraries should support learning among the patrons. This is vital as the growth of research in all fields of human undertaking is getting progressively detailed and complex. Simultaneously, it is likewise significant that multimedia resources in the library fulfill the research and scholarly requirements of the patrons.

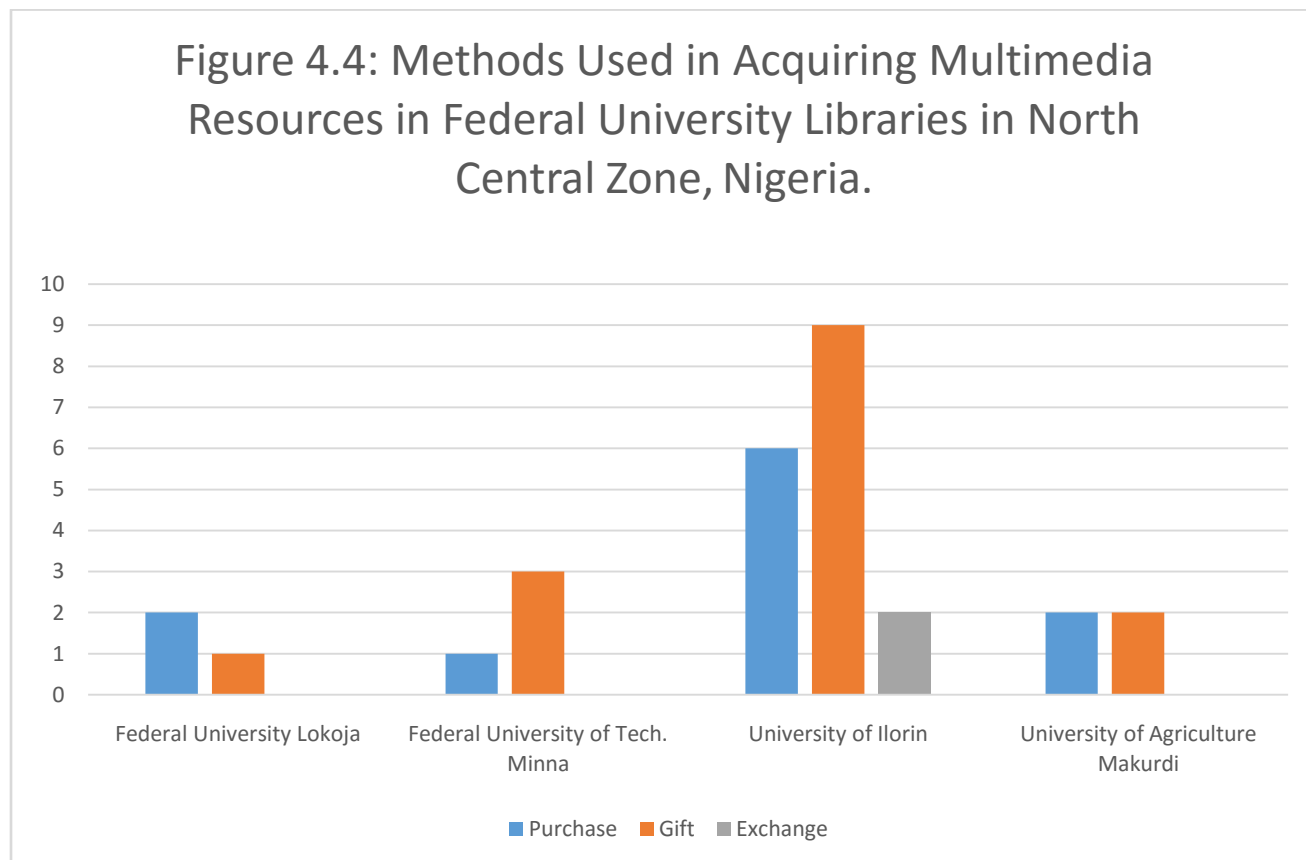
4.5 Methods Used in Acquiring Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria.

The researcher attempted to find out the methods used in acquiring multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. In achieving this, list of options of acquiring multimedia resources were provided for respondents to tick as applicable to their respective libraries. The responses gotten were analyzed in table 4.5

Table 4.4: Methods Used in Acquiring Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria.

| S/N | Methods | Federal University Libraries in North-Central Zone, Nigeria | | | | | | | | | | | | Total (U) | |
|-----|----------|---|--------------|-------------|---|--------------|-------------|----------------------|--------------|--------------|------------------------------------|--------------|-------------|-----------|-------------|
| | | Federal University, Lokoja | | | Federal University of Technology, Minna | | | University of Ilorin | | | University of Agriculture, Makurdi | | | | |
| | | U | R | UN | U | R | UN | U | R | UN | U | R | UN | Freq | % |
| 1 | Purchase | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 1 (6.3%) | 1 (6.3%) | 1 (6.3%) | 6 (37.5%) | 1 (6.3%) | 2 (12.5%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 11 | 68.8 |
| 2 | Gift | 1 (12.5%) | 1 (12.5%) | 0 (0.0%) | 3 (18.8%) | 0 (0.0%) | 0 (0.0%) | 9 (56.3%) | 0 (0.0%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 15 | 93.8 |
| 3 | Exchange | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 3 (18.8%) | 0 (0.0%) | 2 (12.5%) | 7 (43.8%) | 0 (0.0%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 2 | 12.5 |

Key: U=Used, representing Highly Used and Used. R= Rarely Used, representing Rarely Used and Not Used. While UN=Undecided representing only Undecided.



From table 4.4 and figure 4.4, the respondents indicated that gift is the most methods through which they acquire multimedia resources in Federal University Libraries in North Central Zone, Nigeria with frequency and percentage of 15(93.8%). Another method used in acquiring multimedia resources in Federal University Libraries in North Central Zone, Nigeria as indicated by the respondents is through Purchase, as indicated by frequency and percentage of 11(68.8%).

It was surprising that; ‘Exchange’ was not used as a method for acquiring multimedia resources in North Central States Federal University Libraries as just frequency of 2 and percentage of 12.5% was indicated. The above results suggest that North-Central States Federal University Libraries in Nigeria do not engage in the exchange of multimedia resources as a method for acquiring these resources into their libraries, they accept gifts and make purchases. Arizona

State library (2011) suggests that acquisition procedures may change contingent upon the library's central goal and resources, all libraries share a few objectives for all intents and purpose. According to the Arizona State library (2011) these objectives incorporate getting resources as fast and financially as could really be expected and limiting the measure of desk work, filling and follow off required.

4.6 Available Facilities for Organizing Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria.

The researcher attempted to find out the available facilities for organizing multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. In doing this, list of options were provided for the respondents to indicate the facilities. Their responses were captured and presented in table 4.6

Table 4.5: Available Facilities for Organizing Multimedia Resources in Federal University Libraries in North Central Zone, Nigeria.

| S/N | Facilities for Organizing Multimedia Resources | Federal University Libraries in North-Central Zone, Nigeria | | | | | | | | | | | | Total (A) | |
|-----|--|---|--------------|-------------|---|-------------|-------------|----------------------|--------------|--------------|------------------------------------|--------------|-------------|-----------|------|
| | | Federal University, Lokoja | | | Federal University of Technology, Minna | | | University of Ilorin | | | University of Agriculture, Makurdi | | | | |
| | | A | R | UN | A | R | UN | A | R | UN | A | R | UN | Freq | % |
| 1 | Database | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 3 (18.8%) | 0 (0.0%) | 0 (0.0%) | 9 (56.3%) | 0 (0.0%) | 0 (0.0%) | 1 (6.3%) | 1 (6.3%) | 0 (0.0%) | 15 | 93.8 |
| 2 | OPAC | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 2 (12.5%) | 1 (6.3%) | 0 (0.0%) | 9 (56.3%) | 0 (0.0%) | 0 (0.0%) | 1 (6.3%) | 1 (6.3%) | 0 (0.0%) | 14 | 87.5 |
| 3 | Internet | 1 (6.3%) | 0 (0.0%) | 1 (6.3%) | 1 (6.3%) | 1 (6.3%) | 1 (6.3%) | 6 (37.5%) | 1 (6.3%) | 2 (12.5%) | 1 (6.3%) | 0 (0.0%) | 1 (6.3%) | 09 | 56.3 |
| 4 | Computer | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 3 (18.8%) | 0 (0.0%) | 0 (0.0%) | 9 (56.3%) | 0 (0.0%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 0 (0.0%) | 16 | 100 |
| 5 | Digital Camera | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 1 (6.3%) | 1 (6.3%) | 1 (6.3%) | 2 (12.5%) | 4 (25.0%) | 3 (18.8%) | 0 (0.0%) | 2 (12.5%) | 0 (0.0%) | 03 | 18.8 |

| | | | | | | | | | | | | | | | |
|----|---------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|-----------|-------------|
| 6 | Webcam | 0 (0.0 %) | 2 (12. 5%) | 0 (0.0 %) | 1 (6.3 %) | 2 (12. 5%) | 5 (31. 3%) | 4 (25 %) | 0 (0.0 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 0 (0.0 %) | 06 | 37.5 |
| 7 | Smart Card | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 2 (12. 5%) | 1 (6.3 %) | 0 (0.0 %) | 7 (43. 8%) | 2 (12. 5%) | 0 (0.0 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 11 | 68.8 |
| 8 | Printer | 2 (12. 5%) | 0 (0.0 %) | 0 (0.0 %) | 3 (18. 8%) | 0 (0.0 %) | 0 (0.0 %) | 9 (56. 3%) | 0 (0.0 %) | 0 (0.0 %) | 2 (12. 5%) | 0 (0.0 %) | 0 (0.0 %) | 16 | 100 |
| 9 | Scanner | 1 (6.3 %) | 0 (0.0 %) | 1 (6.3 %) | 2 (12. 5%) | 1 (6.3 %) | 0 (0.0 %) | 8 (50. 0%) | 1 (6.3 %) | 0 (0.0 %) | 1 (6.3 %) | 0 (0.0 %) | 1 (6.3 %) | 12 | 75 |
| 10 | CD-ROM | 2 (12. 5%) | 0 (0.0 %) | 0 (0.0 %) | 3 (18. 8%) | 0 (0.0 %) | 0 (0.0 %) | 9 (56. 3%) | 0 (0.0 %) | 0 (0.0 %) | 2 (12. 5%) | 0 (0.0 %) | 0 (0.0 %) | 16 | 100 |
| 11 | DVD | 2 (12. 5%) | 0 (0.0 %) | 0 (0.0 %) | 3 (18. 8%) | 0 (0.0 %) | 0 (0.0 %) | 9 (56. 3%) | 0 (0.0 %) | 0 (0.0 %) | 2 (12. 5%) | 0 (0.0 %) | 0 (0.0 %) | 16 | 100 |

Key: A=Available, representing Highly Available and Used. R= Rarely Used, representing Rarely Used and Not Used. While UN=Undecided representing only Undecided.

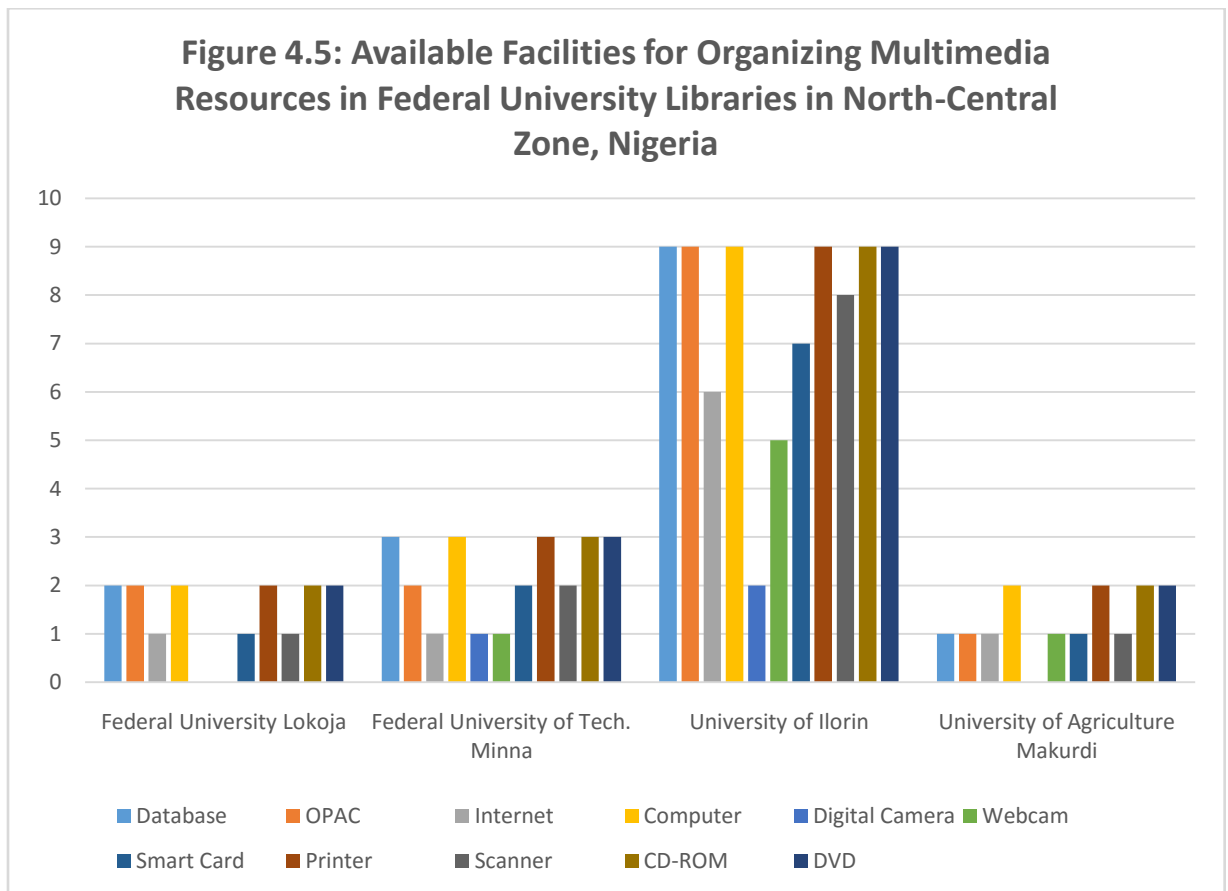


Table 4.5 and figure 4.5 presents the facilities used for organizing multimedia resources in Federal University libraries in North-Central Zone, Nigeria. It was discovered that computer, printer CD-ROM and DVD with frequency and percentage of 16(100%) are available as facilities for organizing multimedia resources in North-Central States Federal University Libraries in Nigeria. Furthermore, database with frequency and percentage of 15(93.8%), OPAC with frequency and percentage of 14(87.5%), scanner with frequency and percentage of 12(75%), smart card with frequency and percentage of 11(68.8%), and internet with frequency and percentage of 9(56.3%).

It is obvious from the findings that Digital camera with frequency and percentage of 3(18.8%), and webcam with frequency and percentage of 6(37.5%) were not indicated as one of the facilities used for organizing multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. The above result suggest that Federal University Libraries in North-Central Zone, Nigeria are well equipped with facilities for managing multimedia resources in the library. The works of (Aramide and Bello, 2013) supports the above result in view that the use of Multimedia resources empowers the employees and the students to viably and effectively access advanced information to help with exploring issues, taking care of issues, deciding, item and innovative answers for help learning, grow new comprehension in spaces of learning and instructing. (Aramide and Bello, 2013) likewise affirmed that with the utilization of Multimedia resources, faculty researchers approach up – to – date information on different subjects and furthermore help with growing new reasoning and acquiring abilities.

4.7 How Multimedia Resources Are Preserved in Federal University Libraries in North-Central Zone, Nigeria.

Understanding how Multimedia Resources Are Preserved in Federal University Libraries in North-Central Zone, Nigeria gave a clear knowledge on their existence and preservation in the

studied area. From the semi-structured interview conducted Multimedia resources are preserved by the librarians who are the custodians. Four major categories were emerged: putting in shelves, duplication, backups, Cloud storage.

- Preservation by Shelving
- Preservation by Duplication
- Preserved by Backups
- Preservation by cloud storage

Table 4.6 How Multimedia Resources Are Preserved in Federal University Libraries in North-Central Zone, Nigeria.

| S/N | Methods of preservation of multimedia resources | Federal University, Lokoja | Federal University of Technology, Minna | University of Ilorin | University of Agriculture, Makurdi |
|-----|---|----------------------------|---|----------------------|------------------------------------|
| 1 | Preservation by Shelving | √ | √ | √ | X |
| 2 | Preservation by duplication | √ | √ | X | X |
| 3 | Preserved by physical Backups | √ | √ | √ | √ |
| 4 | Preservation by cloud storage | √ | X | X | X |

Qualitative analysis of how Multimedia resources were preserved

Federal University Lokoja Library

Based on responses gathered from the interview question presented to the respondents in the above Federal Institution on how multimedia resources are preserved in the library. Responses from respondents revealed that multimedia resources are preserved by editing and organizing them, then burn them on Compact Disks, also backup drive are used to keep a copy of these resources, another way in which these resources are preserve is by putting them on cloud and also upload some of these resources on the Institution’s YouTube channel. The narrative is given below:

How are Multimedia resources preserved by staff in the unit?

1st respondent: Multimedia resources in the library are preserved by producing multiple copies through duplication, the other methods used by the library in preserving its resources in the physical back up and cloud preservation. The physical back up is done by having this multimedia resources available in external storage devices.

2nd respondent: We preserve multimedia resources by editing and organizing them, then burn them on Compact Disks, we also have a backup drive where we keep a copy of these resources, another way in which we preserve these resources is by putting them on cloud, we upload some of these resources on the Institution's YouTube channel.

Federal University of Technology Minna Library

Based on responses gathered from the interview question presented to the respondents in the above Federal Institution on how multimedia resources are preserved in the library. Responses from respondents revealed that Multimedia resources here are mostly audio books, and accompanied Compact Disks that come with Text books, we place them in shelves in and sometimes make extra copies if it's frequently used. The narrative is given below:

How are Multimedia resources preserved by staff in the unit?

1st respondent: Multimedia resources here are mostly audio books, and accompanied Compact Disks that comes with Text books, we place them in shelves and sometimes make extra copies if it's frequently used.

2nd respondent: we preserve our multimedia resources more by having them safely and neatly kept on the shelf for our users to freely access and make use of the, we also have backup copies kept in the reserve unit also for our user's consumption, we also make these copies available through external storage devices in the library.

3rd respondent: we preserve our multimedia resources by backing them up in other Disk, keeping a copy on the shelf while reserving the other copy

University of Ilorin Library

Based on responses gathered from the interview question presented to the respondents in the above Federal Institution on how multimedia resources are preserved in the library. Responses from respondents revealed that the unit is a part of the E-library, and every staff working in the E-library rotates in managing the resources, resources are preserved by carefully putting them in shelves, extra copies of resources are made for back up. Four out of the nine staff in the multimedia unit weren't available for the interview. The narrative is given below.

How are Multimedia resources preserved by staff in the unit?

1st respondent: The unit is a part of the E-library, and every staff working in the E-library rotates in managing the resources, resources are preserved by carefully putting them in shelves, extra copies of resources are made for back up.

2nd respondent: The multimedia resources in the library here usually undergo prior maintenance and are well kept on the shelf were they can be safe, physical backup is also used in the storage and preservation of these resources

3rd respondent: The multimedia resources in the library usually burn on CD and kept on the shelf, extra copies are made for back up

4th respondent: The multimedia resources in the library here are preserved by making backup copies by burning extra copies

5th respondent: Multimedia resources in the library use, physical backup i.e CDs are used in the storage and preservation of these resources

University of Agriculture Makurdi Library

Based on responses gathered from the interview question presented to the respondents in the above Federal Institution on how multimedia resources are preserved in the library. Responses from respondents revealed that the multimedia resources here are mostly preserved by backing them up on external hard drives, these hard drives serve as extra copy for these resources and they are carefully stored. The narrative is given below:

How are Multimedia resources preserved by staff in the unit?

1st respondent: The multimedia resources here are mostly preserved by backing them up on external hard drives, these hard drives serve as extra copy for these resources and they are carefully stored.

2nd respondent: majorly our multimedia resources are backed up with physical devices like the CD Rom and other storage devices and are safely kept for reference purpose.

Discussion of Findings

The research question above under discussion covers how multimedia resources are preserved by staff in Federal University Libraries in North Central Zone, Nigeria. Responses were sampled from the four different Federal Universities under study. Responses from Federal University Lokoja indicate that Responses from respondents revealed that the multimedia resources are preserved by editing and organizing, then burn them on Compact Disks, also backup drive are used to keep a copy of these resources, another way in which these resources are preserve is by putting them on cloud and also upload some of these resources on the Institution's YouTube channel. It examined the causes of deterioration, patterns and strategies used to control the causes of deterioration, and constraint limiting effective preservation and conservation.

Based on responses gathered from the interview question presented to the respondents in University of Ilorin on how multimedia resources are preserved in the library revealed that Multimedia resources there are mostly audio books, and accompanied Compact Disks that come with Text books, they place them in shelves and sometimes make extra copies if it's frequently used. This is in line with the work of Arora, (2014) who affirms that digital preservation referred to series of managed activities designed to ensure continuing access to all kinds of resources in digital formats for as long as possible and to protect them from media failure, physical loss and obsolescence. It could be seen as the ability to maintain, display, retrieve and use of digital collections in the face of rapidly changing technology.

Based on responses gathered from the interview question presented to the respondents in Federal University of technology, Minna on how multimedia resources are preserved in the library. Responses from respondents revealed that the unit is a part of the E-library, and every staff working in the E-library rotates in managing the resources, resources are preserved by carefully putting them in shelves, extra copies of resources are made for back up. Olatokun, (2015) affirmed that the various techniques used in preservation and conservation of library collections in selected universities in Nigeria. It examined the causes of deterioration, patterns and strategies used to control the causes of deterioration, and constraint limiting effective preservation and conservation. The findings of the study revealed that preservation and conservation techniques adopted in the libraries were not effectively used.

Based on responses gathered from the interview question presented to the respondents in University of Agriculture Markurdi on how multimedia resources are preserved in the library. Responses from respondents revealed that the multimedia resources here are mostly preserved by backing them up on external hard drives, these hard drives serve as extra copy for these resources and they are carefully stored. This is in consonant with the works of Kennedy, (2010) who observed that preservation of multimedia resources in federal universities are done in many ways such as indirect preservation which includes the building where the resources are being preserved, the storage method, security against threats to the resources and handling.

The findings of the study revealed that preservation and conservation techniques adopted in the libraries were effectively used. The findings also revealed that physical storage (shelving) of library multimedia resources were the commonly used technique. Further the results showed that some of the libraries adopt and use some digital preservation techniques which were also effective.

4.8 Challenges to management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.

The researcher endeavored to find out the challenges of management of multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. In doing this, list of options were provided for the respondents to indicate the challenges encountered in the management of multimedia resources. Their responses were captured and presented in table 4.9.

Table 4.7 The Challenges to management of Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria.

| S/ N | Challenges to Management of Multimedia Resources | Federal University Libraries in North-Central Zone, Nigeria | | | | | | | | | | | | | | | | Total (A) | |
|---------|---|---|------------------|-----------------|-----------------|---|-------------------|-----------------|-----------------|----------------------|-------------------|-----------------|-----------------|--|-------------------|-----------------|-----------------|--------------|--------------|
| | | Federal University, Lokoja | | | | Federal University of Technology, Minna | | | | University of Ilorin | | | | University of Agriculture, Makurdi | | | | Freq | % |
| | | SA | A | D | SD | SA | A | D | SD | SA | A | D | SD | SA | A | D | SD | | |
| 1 | Lack of awareness | 2 (12.5 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 3 (18.8 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 7 (43.7 5%) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 0 (0.0 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 14 | 87.5 |
| 2 | Lack of Basic skills by staff | 2 (12.5 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 1 (6.3 %) | 2 (12.5 5%) | 0 (0.0 %) | 0 (0.0 %) | 9 (56.3 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 0 (0.0 %) | 16 | 100 |
| 3 | Epileptic power Supply | 1 (6.3 %) | 0 (0.0 %) | 1 (6.3 %) | 0 (0.0 %) | 1 (6.3 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 2 (12.5 %) | 6 (37.5 %) | 1 (6.3 %) | 0 (0.0 %) | 2 (12.5 5%) | 0 (0.0 %) | 1 (6.3 %) | 0 (0.0 %) | 13 | 81.25 |
| 4 | Poor Internet Network | 2 (12.5 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 3 (18.8 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 4 (25 %) | 3 (18.8 8%) | 1 (6.3 %) | 1 (6.3 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 0 (0.0 %) | 14 | 87.5 |
| 5 | Poor Funding of Library | 0 (0.0 %) | 2 (12.5 %) | 0 (0.0 %) | 0 (0.0 %) | 3 (18.8 %) | 0 (0.0 %) | 0 (0.0 %) | 1 (6.3 %) | 9 (56.3 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | 2 (12.5 5%) | 0 (0.0 %) | 0 (0.0 %) | 16 | 100 |
| 6 | Technophobia among staff | 0 (0.0 %) | 2 (12.5 %) | 0 (0.0 %) | 0 (0.0 %) | 1 (6.3 %) | 2 (12.5 5%) | 0 (0.0 %) | 0 (0.0 %) | 5 (31.3 %) | 4 (25 %) | 0 (0.0 %) | 0 (0.0 %) | 1 (6.3 %) | 1 (6.3 %) | 0 (0.0 %) | 0 (0.0 %) | 16 | 100 |

Key: SA: Strongly agree, A: Agree, D: Disagree, SD: Strongly disagree

Figure 4.7: The challenges to management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria

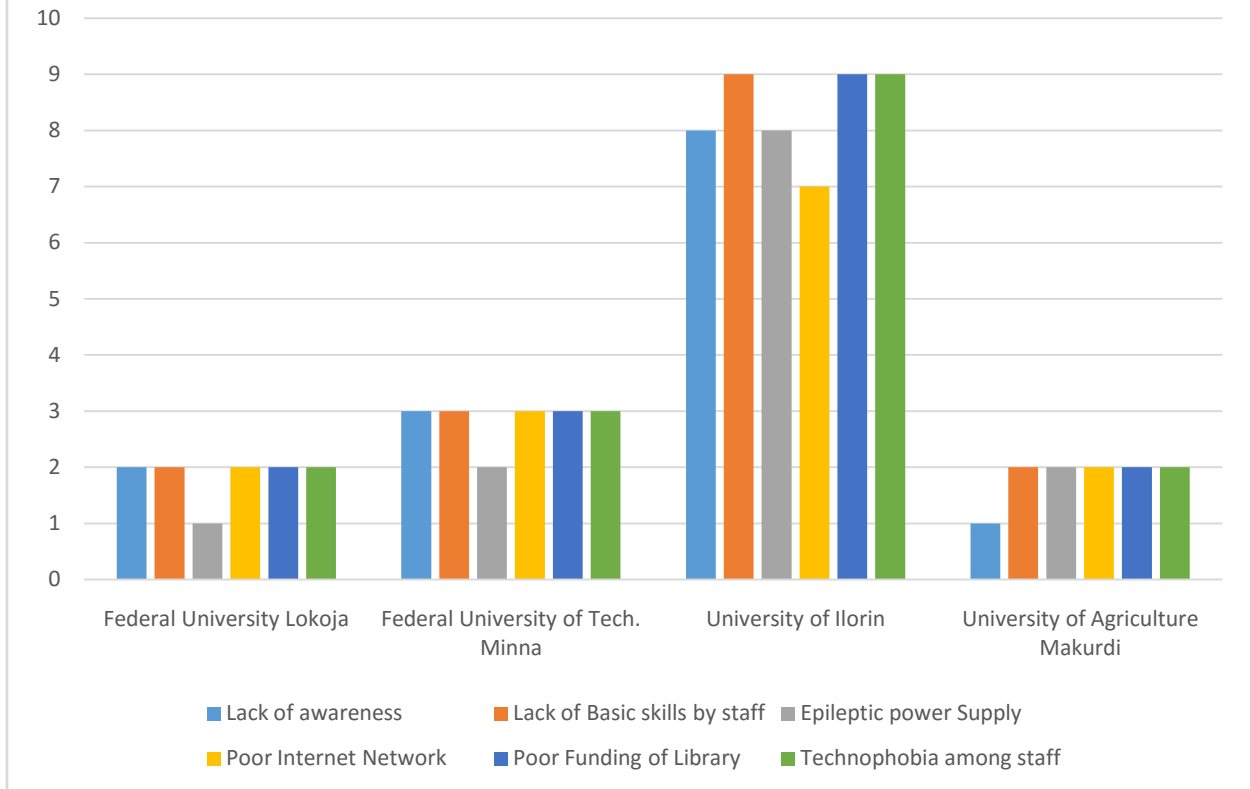


Table 4.7 and figure 4.7 presents challenges to effective management of multimedia resources in Federal University libraries in North-Central Zone, Nigeria. Data representation from the above table clearly show that lack of basic skills by staff, poor funding of library, techno phobia among staff has 16(100%) which indicates that these are the most prevalent challenges facing the management of multimedia resources in Federal University libraries in North-Central Zone,Nigeria. Furthermore, the data shows that Lack of awareness and Poor Internet Network has 14(87.5%) which also portray that these are impeding challenges to the management of multimedia resources in the above mentioned area while epileptic power supply was seen as the least challenge with 13 (81.25%) amongst the other listed challenges in North-Central States Federal University libraries in Nigeria. The results from the above table implies that North-Central States University Libraries are still plagued with serious challenges that could hamper the growth and effective

management of multimedia resources in the above listed area of study. In line with the above results, Iwhiwhu and Eyekpegaha (2014), also identifies with the above challenges also state that inadequate ICT infrastructures, manpower, fund, inadequate government support and lack of user education are part of the major challenges facing digital libraries in Nigeria. This further shows the level of management of Multimedia Resources in Federal University libraries in North-Central Zone, Nigeria.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provided the summary, conclusion and recommendations of the study. It also provided the suggestions for further studies as follows:

5.2 Summary of the Study

The study was carried out to investigate the management of multimedia resources by university staff in North-Central States Federal University Libraries in Nigeria. In a bid to achieve the purpose of this research five research questions were raised and arranged in the following array, the first was on the types of multimedia resources available in North-Central States Federal University Libraries in Nigeria, second was on the method of acquiring multimedia resources in North-Central States Federal University Libraries in Nigeria, the third was on the available facilities for organizing multimedia resources in North-Central States Federal University Libraries in Nigeria, the fourth was on how multimedia resources are preserved in North-Central States Federal University Libraries in Nigeria, while the last is on the challenges faced in the effective management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. The study also highlighted the significance of the management of multimedia resources by university staff to the various scope covered and definitions of key words were operationally outlined.

The study also reviewed various works of literature written by scholars on the management of multimedia resources in the field. These reviews contain critical issues relevant to the work that is currently been undertaken and it concerted more on the concept of multimedia resources, available multimedia resources in the library, available facilities for organizing multimedia resources in the libraries, importance of multimedia resources, acquisition of multimedia resources in libraries,

preservation of multimedia resources in libraries, challenges to effective management of multimedia resources in libraries.

The study made use of descriptive research design which is very well accommodating and the research method adopted for the purpose of the study is both qualitative and quantitative method which infuses the ideas of a respondents feeling about certain ideas along with evidential measurement of values that corresponds. The population of the study of the study were carefully selected from the multimedia units of the area covered by the scope, sample size and sampling technique were also employed for choosing the right sample, the instruments for data collection were well structure interview questions as well as questionnaire to elicit adequate response from respondents, the rigor in qualitative research was also conducted to consolidate the efforts on the analysis, procedure for data collection as well as the procedure for data analysis, frequency and percentage were used for analyzing the data gathered from the field and the findings were carefully presented by the researcher.

5.3 Summary of the Findings

The major findings under descriptive analysis were that:

1. The types of Multimedia resources available in Federal University Libraries in North-Central Zone, Nigeria are E-text, audio and visual
2. Purchase, and gift are the two major method used in acquiring multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.
3. Databases, OPAC, computer, printer, CD Rom and DVD are available facilities for organizing multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.

4. Physical back up (Hard disk), and preservation by shelving of multimedia resources are more prevalent methods for preserving multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.
5. The lack of adequate awareness, lack of basic ICT skills by staff, lack of adequate internet facility, techno phobia among staff and lack of adequate funding are the major challenges impeding the effective management of multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.

5.4 Contribution to Knowledge

Based on the findings of this study, the following contributions to the body of knowledge were provided:

1. Findings from the study will educate staff to a more technologically inclined ways of managing multimedia resources.
2. Findings from the study will inform management, staff and researchers to the challenges impeding the management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria as well as proffering solutions to these problems.
3. Findings will also expose staff to appropriate measure for the preservation of multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.

5.5 Limitations of the Study

In the course of conducting this study, the following limitations were encountered:

1. Monitoring the progress of administering the Questionnaire and at the same time conducting interviews at different Federal University Libraries in North-Central Zone, Nigeria within the scope was a little challenging which slowed the progress of the research conducted.
2. Lack of adequate number of staff at the multimedia unit at the different Federal University Libraries in North-Central Zone, Nigeria created limitations in the capturing of more data.

3. The researcher had issues gathering works of literature for the study since most of the materials used for the study were accessed from close access databases thereby increasing the researcher's financial commitment to the project work.

5.6 Conclusion

From the analysis and summary of the findings, it could be concluded that Federal University libraries in North-Central Zone, Nigeria possess a great number of multimedia resources and facilities for managing these resources. Responses also revealed that purchase and gifts are the major methods of acquiring multimedia resources in Federal University Libraries in North-Central Zone, Nigeria, it was also established among the methods of preserving multimedia resources that the physical Backup are mostly used by Federal University Libraries in North-Central Zone, Nigeria, it was also gathered from the study that numerous challenges plagues the effective management of multimedia resources in these Federal University libraries among which are the lack of awareness, lack of basic skill set by staff, poor internet network, unstable power supply, poor funding of the library, techno phobia among staffs and many more.

5.7 Recommendations

Based on the findings and conclusion of this study, the following recommendations were made. That:

1. Federal University libraries in North-Central States, Nigeria should acquire more audiovisual (videos) resources.
2. Federal University libraries in North-Central Zone, Nigeria should adopt exchange as an additional medium of acquiring multimedia resources.
3. Federal University libraries in North-Central Zone, Nigeria should acquire additional multimedia facilities like caliber, webcams and Digital cameras for organizing multimedia resources.

4. Migration, emulation and duplication of these multimedia resources should be adopted as an effective method to manage and preserve multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.
5. Awareness, and Training should be held to expose staff to managing Multimedia resources.

5.8 Suggestions for Further Studies

This research focused on the Management of multimedia resources in Federal University Libraries in North-Central Zone, Nigeria. In the course of the research, the following areas were brought to light which were not within the scope of this present study. Therefore, further studies need to be conducted in the following areas;

1. Utilization of Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria
2. Organization of Electronic-Resources (e-resources) in Federal University Libraries in North-Central Zone, Nigeria.
3. The Advantages of Multimedia Resources in Federal University Libraries in North-Central Zone, Nigeria.

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APPENDIX I

MANAGEMENT OF MULTIMEDIA RESOURCES BY LIBRARY STAFF IN FEDERAL UNIVERSITY LIBRARIES IN NORTH-CENTRAL STATES, NIGERIA.

Department of Library and Information Science,
Faculty of Education,
Ahmadu Bello University,
Zaria, Kaduna State.
Date.....

Dear Respondent,

REQUEST TO FILL QUESTIONNAIRE

I am an undergraduate student of the above institution conducting a research on Management of Multimedia Resources by Library Staff in Federal University Libraries in North-Central States, Nigeria. Kindly assist by completing the attached questionnaire as the information needed is specifically for the purpose of research and, will be treated confidentially.

Thank you.

Yours sincerely,

SAIDU, DANJUMA
P18EDLS8261

APPENDIX II

MANAGEMENT OF MULTIMEDIA RESOURCES BY LIBRARY STAFF IN FEDERAL UNIVERSITY LIBRARIES IN NORTH-CENTRAL STATES, NIGERIA.

QUESTIONNAIRE

Instructions: Please provide answers in the space by a tick (√) on the column to indicate your option on each of the question

SECTION A: Bio-data of Respondents

Please kindly tick [] / fill the space

1. Department
2. Unit
3. Programme: (a) Diploma []
(b) BLS []
(b) Master []
(c) M. Phil []
(d) Doctorate []
4. Gender: Male []
Female []

1 SECTION B: Multimedia resources available in Federal University Libraries in North-Central States, Nigeria.

5. What types of Multimedia resources are available in Federal University Libraries in North-Central States, Nigeria?

| S/No | Available Multimedia Resources | Highly Available | Available | Rarely Available | Not Available | Undecided |
|------|--------------------------------|------------------|-----------|------------------|---------------|-----------|
| 1 | E-Text | | | | | |
| 2 | Video | | | | | |
| 3 | Audio | | | | | |
| 4 | Digital Graphics Images | | | | | |
| 5 | Animation | | | | | |

SECTION C: Methods of acquiring Multimedia resources in Federal University Libraries in North-Central State, Nigeria.

6. What are the methods used in acquiring Multimedia resources in Federal University Libraries in North-Central States, Nigeria?

| S/No | Methods used in acquiring Multimedia Resources | Highly Used | Used | Rarely used | Not Used | Undecided |
|------|--|-------------|------|-------------|----------|-----------|
| 1 | Purchase | | | | | |
| 2 | Gift | | | | | |
| 3 | Exchange | | | | | |

SECTION D: Facilities available for Managing Multimedia resources in Federal University Libraries in North-Central States, Nigeria.

7. What facilities are available for Managing Multimedia resources in Federal University

Libraries in North-Central States, Nigeria?

| S/N | Facilities Available for Managing Multimedia Resources | Highly Available | Available | Rarely Available | Not Available | Undecided |
|-----|--|------------------|-----------|------------------|---------------|-----------|
| 1 | Database | | | | | |
| 2 | Online Public Access Catalogue (OPAC) | | | | | |
| 3 | Internet | | | | | |
| 4 | Computer | | | | | |
| 5 | Digital camera | | | | | |
| 6 | Calibre | | | | | |
| 7 | Smart Card | | | | | |
| 8 | Printer | | | | | |
| 9 | Scanner | | | | | |
| 10 | CD-ROM | | | | | |
| 11 | DVD | | | | | |

SECTION E: Challenges to effective management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria.

8. What are the challenges to effective management of Multimedia resources in Federal University Libraries in North-Central Zone, Nigeria?

| S/N | Challenges to effective Management of Multimedia Resources | Strongly Agreed | Agreed | Disagreed | Strongly Disagreed |
|-----|--|-----------------|--------|-----------|--------------------|
| 1 | Lack of awareness | | | | |
| 2 | Lack of Basic skills by staff | | | | |
| 3 | Epileptic power Supply | | | | |
| 4 | Poor Internet Network | | | | |
| 5 | Poor Funding of Library | | | | |
| 6 | Techno phobia among staff | | | | |

Thank You.

APPENDIX III

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE,

AHMADU BELLO UNIVERSITY

Interview Guide

Topic: Management of Multimedia Resources by Library Staff in North-Central States

Federal University Libraries in Nigeria

This interview guide was designed to serve as a guide during the semi-structured interview with library staff in the multimedia unit of the selected institutions.

SECTION A: RESPONDENT(S) DATA

1. **Name of Institution:**
2. **Date**.....
3. **Number of participants**.....
4. **Duration of Interview**.....

SECTION B: DATAS ON INVESTIGATING THE MANAGEMENT OF MULTIMEDIA RESOURCES BY LIBRARY STAFF IN FEDERAL UNIVERSITY LIBRARIES IN NORTH-CENTRAL STATES, NIGERIA.

How are Multimedia resources preserved by staff in Federal University Libraries in North-Central States, Nigeria?

APPENDIX IV

RELIABILITY STATISTICS

| | | |
|---------------------------------------|-----------------------|-------------|
| Total N of Items | | 2 |
| Correlation Between Forms | | .055 |
| Spearman Brown Coefficient | Equal Length | .120 |
| | Unequal Length | .120 |
| Guttman Split-Half Coefficient | | .81 |