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# Availability of Information Resources for Visually Impaired Students in University Libraries in Nigeria: A Tool for Inclusive University Education

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## ABSTRACT

This research investigates the availability of information resources for visually impaired students in University libraries in Nigeria; a tool for inclusive University education. A Descriptive survey research design was adopted for the study and a total number of 20 University libraries took parts in the study. A self-constructed online questionnaire was designed and distributed to collect the data from respondents (librarians) using a simple random sampling technique. A total of 45 respondents filled out the online questionnaire, but 40 were valid and useful for analysis. The use of frequency count and percentages method of data analysis was adopted for this research work. The study reveals that most of the University libraries lacked information resources for visually impaired students, it was found that the inclusion of information resources for visually impaired persons will promote inclusive education and librarians' skills. The challenges hindering the availability of information resources to the visually impaired students are insufficient funds for maintenance, erratic power supply and inadequate skills by users, among others. Recommendations were made for the campaign for inclusive education and the provision of information resources for visually impaired students.

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## 1. Introduction

The provision of various forms of information resources to people with disabilities ensures that all the social classes in the community are integrated into the process of education, information utility and economic development among others in the society. It therefore, promotes the education of the masses irrespective of special disabilities since, a country that fails to utilize and incorporate the disadvantaged in its country's development plan, increases its dependency ratio which decreases her chances of meeting the sustainable development goals. More so, Iroeze, Chima-James, Nneka,

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and Opara (2018) in their work cited the declaration of the rights of physically challenged persons by the United Nations General Assembly (1975), it stated that physically challenged persons have the right to quality education which will enable them to develop and hasten the process of their social integration and education. This is reflected in the Special Education Unit of the NPE (2004) where provision is made to provide information resources to persons with disabilities, to support their learning abnormalities. Special libraries and information Centres involve in the provision of information resources and services in, supplementary to and or different from those provided in the regular library services by a systematic modification and adaptation of instructional techniques and resources to meet the needs of the disabled learners. It is to help them to become self-independent in the search for education and information. Disability is divided into five major types, which are; mentally disabled, visually impaired, hearing-impaired and talking-impaired, orthopedically handicapped, and perpetual disabled (Oyebola, 1997; Okeke, 2001; Bakpo, 2004).

However, this study limits itself to the visually impaired, which is a situation that a person can see poorly or not see resulting from a person's functional disease of the eyes. Persons who have 15 % eye sight and less are visually impaired, and persons who need extra tools to see efficiently and read a normal writing hardly are defined as persons who have 'low vision'. These impediments become a challenge in their lives (Dursin, 2012). The visually impaired are grouped into two major types, they are; those who are completely blind and those who are partially blind. According to Agbaje (2000), the total population of Nigerians is estimated at 120 million people, with blind and visually impaired persons numbering at least 1 million. It is also estimated that of this figure, more than 25,000 persons are of school age, and less than 10 percent of these actually attend school, with the remaining 90 percent confined to houses or roaming the streets as beggars. In more recent statistics, current literature indicates that by 2022, the total population of Nigeria has grown to an estimated 218.5 million people (United Nations World Population Prospects, 2022). The South-West Geo-Political Zone (GPZ) had the lowest prevalence of blind people (2.8 %; 95% CI: 2.2 to 3.5 %) and the North-East GPZ had the highest (6.1%; 95% CI: 4.7 to 7.9%), the North-West GPZ has the largest number of blind adults (28.6%) being the zone with the largest population, while the south-south GPZ is (15.0%) thus, the total number of 4.25 million adults aged 40 years and above in Nigeria are visually impaired (The Nigerian National Blindness and Visually Impairment Survey, 2005-2007).

One of the primary objectives of any library is to create and make available information resources to all, including the disabled (Edoka, 2000; Ifidon & Ifidon, 2007). Visually impaired learners must use media involving audio, tactile perceptions or other sight-aided equipments for reading while partially sighted readers frequently use print or non-print reading material with the help of optical aids, such as magnifiers, etc. These information resources are specially designed to enhance the visually impaired students to search for information. They can also be referred to as assistive technologies and devices. This is because it assists visually impaired users to access and utilize information like their able- body counterparts in university libraries.

University libraries in Nigeria, no matter the type, in one way or the other have visually impaired students. Although, there is always an assumption by library staff and some library administrators to think that their libraries do not have users with disability because they do not see any in the

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library, the truth of the matter is that people with disabilities live and learn everywhere (Mates, 2011), to seek knowledge like any other student as their information resources differ from the able-body counterparts. It is therefore important for University libraries to make available information resources for visually impaired students, while also promoting inclusive University education and library usage. However, University libraries in Nigeria seem to be lopsided in the provision of information resources for visually impaired students.

## 2. Statement of the Problem

Visually impaired students are gradually increasing in Universities in Nigeria. The need to make necessary changes in libraries' collections is essential for healthy education and further integration of visually impaired students into the society. As observed by Eskay and Chima (2013), there is a gap in providing quality services to visually impaired students in higher institutions in Nigeria, which could be due to a lack of information resources for visually impaired students. However, the researcher is uncertain whether University libraries in Nigeria are providing information resources for their visually impaired students, and thus seek to examine the extent to which university libraries have provided information resources to persons with disabilities. It therefore, becomes imperative to investigate the availability of information resources for visually impaired students in University libraries in Nigeria.

## 3. Objectives of the Study

The main objective of the study is to investigate the availability of information resources for visually impaired students in University libraries in Nigeria: a tool for inclusive University education. The specific objectives are to:

- 1) Identify the types of information resources available for visually impaired students in University libraries in Nigeria.
- 2) Determine the impact of the available information resources to the visually impaired students on library services in University libraries in Nigeria.
- 3) Identify the challenges hindering of the availability of information resources to visually impaired students in University libraries in Nigeria.

## 4. Research Questions

- 1) What are the different types of information resources available for visually impaired students in University libraries in Nigeria?
  - 2) What is the impact of the available information resources to the visually impaired students
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on library services in University libraries in Nigeria?

- 3) What are the challenges hindering of the availability of information resources to the visually impaired students in University libraries in Nigeria?

## 5. Review of Related Literature

Equality, freedom of education and information are for all without exclusion by abilities or capabilities. Dike (2007), Chaputula and Mapulanga (2016), and Kiambati (2021) in their respective works advocated for inclusive and special information resources and services for all persons with disabilities. They noted that persons with disabilities are needy and they seek diverse information on how to cope with the disabilities, educational opportunities, job and career development, bibliotherapy, social, cultural, economic and political information including sports and are sometimes faced with problem of environmental dilapidation, socio-economic inequality, architectural barriers, negative attitude of the public, inadequate information resources, cost of education and high cost of the materials for the effective teaching and learning.

Omede (2015), in his study, examined the global challenges in the higher education system and made it clear that the visually impaired are those with visual problems, be it partial, low vision, or total blindness, as such, need higher education to be liberated from the shackles of pity and sympathy. The study found out that the educational needs of the visually impaired include computer applications, optical aids, and Braille writing materials, issues of mobility, funding, library resources, personnel availability and physical infrastructural facilities.

In a study conducted by Majinge and Stilwell (2013) on “Library services provision for people with visual impairments and those in wheelchairs in academic libraries in Tanzania”, Using both quantitative and qualitative methods to conduct a survey and observation-based research, it was revealed that academic libraries provided services to people with visual impairments and in wheelchairs but these services were not inclusive or universal.

Eskay and Chima (2013) investigated the evolution of library services for the blind and physically challenged in Nigerian universities with particular reference to the University of Nigeria, Nsukka (UNN). The investigation result was that there is a need to meet the information needs of persons with visual impairment through the provision of assistive technologies such as screen reader, Braille translation software, Braille writing equipment, Closed Circuit Television (CCTV), Braille embosser and scanners. They proposed that; university management should attempt to provide information resources and facilities, and also employ special education teacher with solid Braille literacy skills to teach the visually impaired learners.

Ambali, Usman, and Adesina (2018) examined the resources and services provided for disabled library users in University of Ilorin and Federal College of Education (Special) Oyo. The study adopted the qualitative research approach. This study consisted of all the disabled library patrons in University of Ilorin and Federal College of Education (Special) Oyo. Purposive sampling was used to select sample for this study. Three data gathering instruments consisting of questionnaires, observation and interviews were used in this study. Data were analyzed using frequency and percentages.

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The findings of the study showed that Audio-Book, Subtitled DVDs and Videos, Talking Books, Electronic Text etc were some of the resources common to the two institution libraries.

Chaputula and Mapulanga (2016) investigated the provision of library services to people with disabilities in Malawi. A mixed methodology was used as the research design. All participating libraries (fifty-six) were sampled to participate in the survey while fourteen students with disabilities were purposively chosen to be interviewed. Data were collected using questionnaire and interview. Data were analyzed using Microsoft Excel. The study revealed the provision of large print notices/signage and some materials were available. The libraries lacked the major information resources and those that were available were not well utilized as a result of mismanagement and maintenance issues that, the libraries do not offer specialized training such as induction sessions or market services that cater for those with disabilities. The study, among others recommended that equipment deemed necessary for people with disabilities (such as Braille books) be procured.

Kiambati (2021), carried out a study on the usability of digital libraries during the information retrieval by persons with visual impairment in selected public universities in Kenya. The study used a cross-sectional survey design in which 126 students with visual impairment and 12 special needs librarians were targeted. A questionnaire, interview guides and focus group discussion were used to collect data from the students and special needs librarians. A mixed method approach to data analysis was used, where descriptive and inferential statistical methods were used in the analysis and presentation of quantitative data while a thematic approach was used to analyze qualitative data. The study findings revealed the followings: that digital libraries were not friendly to use by students with visual impairment, on the efficiency of digital libraries, slightly more than half of students with visual impairment reported that digital libraries are efficient; that user's level of satisfaction was independent of their gender and age; that majority of students with visual impairment found the digital libraries not easy to learn; that digital libraries were not accessible to persons with visual impairment and that some of them lacked the basic accessibility requirements for the visually impaired as guided by the World Wide Web Consortium standards. The study concludes that prior training of students with visual impairments in assistive technology improves overall user experience with digital libraries. Thus, the study recommends the following; the institutionalization of assistive technology training as a strategy to enhance the use of digital library resources among users with visual impairment, and involvement of persons with visual impairment in usability testing of information retrieval (IR) systems such as the digital library to facilitate the design of friendly, efficient, easy to use, easy to learn and accessible systems.

Eze (2014) investigated the availability and utilization of library resources and services by Physically challenged polytechnic students in the South-East, Nigeria. A descriptive survey design was adopted for the research. The populations of the study were all the identified students with mobility, hearing and visual impairments and the professional librarians who were the service providers in the polytechnic libraries. The total number of professional librarians was 94 and that of the physically challenged students was 1984 from where a sample of 279 was taken. The whole professional librarians were used because the population was small. The researcher also used Focus Group Discussion (FGD) and a questionnaire for data collection. Data were analyzed using multiple statistical tools such as frequency tables, percentages, means and standard deviations. ANOVA was used for testing

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the formulated hypotheses. Major findings include that general library materials were available (though some are outdated), paucity of specialized library resources for the mobility, hearing and visually impaired students, general lack of support resources in the library and a high extent of use of available resources and services. Problems of availability and utilization were outdated resources, and poor funding amongst others. It was recommended that more current general library materials be provided in polytechnic libraries, specialized resources and facilities for the three (3) groups of physically challenged students be provided, and that officers in charge of physically challenged students be provided immediately.

## 6. Research Methodology

A descriptive survey research design was used for the study. The population of the study is all university libraries in Nigeria. However, a total number of 20 university libraries took parts in the study. A self-constructed online questionnaire was designed and distributed to collect the data from the respondents (librarians) using a simple random sampling technique. The online questionnaire was grouped into three (3) clusters which included; the availability of information resources for visually impaired students in University libraries, the impact of information resources to the visually impaired students on library services in University libraries and the challenges hindering the availability of information resources to the visually impaired students in University libraries. A total of 45 respondents filled out the online questionnaires, but 40 were valid and useful for analysis. The use of frequency count and percentages, a method of data analysis was adopted for this research work.

## 7. Analysis and Discussion of Results

### *7.1 Demographic characteristics of the respondents*

The respondents consist of 40 librarians from 20 Universities in Nigeria. The results show that there were 18 (45%) male and 22 (55%) female librarians. The results of their educational qualifications were; 12 (30%) PhD, 10 (25%) MLIS, 10 (25%) BLIS and 8 (20%) HND. Also, the age ranges of the respondents were; 20-39 11 (27.5%), 40-49 20 (50%) and 50 above were 9 (22.5%).

### *7.2 Research Question One: What are the different types of information resources available for visually impaired students in University libraries in Nigeria?*

Table 1 revealed that the available information resources for visually impaired students in University libraries in Nigeria were thus: tape recorder with 18 (45%) respondents affirming to this, magnifier with 12 (30%) respondents affirming to this, recorded catalogue 8 (20%), audio books 15 (37.5%), Braille encyclopedia 5 (12.5%), Ear phones 8 (20%), Braille maps/atlas 7 (17.5%), listening room

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4 (10%), private study area 8 (20%), audio dictionary 7 (17.5%), slates and stylus 4 (10%), large print (V-tech) 5 (12.5%), tracing/spul wheel 2 (5%), talking calculator 3 (7.5%), talking book 4 (10%) and Optacon 1 (2.5%). While, Braille textbook (0%), Braille fictions (0%), and Braille journal (0%), were not available in any of the university’s libraries. The result of this study agreed with Chaputula and Mapulanga (2017) findings which revealed that the availability of essential information resources for the visually impaired was lacking and those that were available were not well utilized. This result also concurs with that of Eskay and Chima (2013) in their study which discovered that there was no adequate provision of current information resources such as Braille writing and reading equipments among others in the UNN library.

Table 1. Types of information resources available for visually impaired students in University libraries in Nigeria

Items	Yes	No
Tape recorder	18 (45%)	22 (55%)
Magnifier	12 (30%)	28 (70%)
recorded catalogue	8 (20%)	32 (80%)
Audio books	15 (37.5%)	25 (62.5%)
Braille encyclopedia	5 (12.5%)	35 (87.5%)
Ear phones	8 (20%)	32 (80%)
Braille textbook	(0%)	40 (100%)
Braille fiction	(0%)	40 (100%)
Braille journals	(0%)	40 (100%)
Braille maps/atlas	7 (17.5%)	33 (82.5%)
Listening room	4 (10%)	36 (90%)
Private study areas	8 (20%)	32 (80%)
Audio dictionary	7 (17.5%)	33 (82.5%)
Slates and stylus	4 (10%)	36 (90%)
Large print (V-tech)	5 (12.5%)	35 (87.5%)
Tracing/spul wheel	2 (5%)	38 (95%)
Talking calculator	3 (7.5%)	37 (92.5%)
Talking book	4 (10%)	36 (90%)
Optacon	1 (2.5%)	39 (97.5%)

### *7.3 Research Question Two: What is the impact of the available information resources to the visually impaired students on library services in University libraries in Nigeria?*

Table 2 shows the impact of available information resources to the visually impaired students on library services in University libraries in Nigeria. The Table reveals that 36 (90%) respondents agreed that information resources foster inclusive learning for visually impaired students, 40 (100%) respondents agreed that it help to know their information need, 32 (80%) respondents agreed that it provides the latest information to them, 34 (85%) respondents agreed that it promotes librarians

skills, 32 (80%) respondents agreed that it fosters the actualization of institutional objectives. This result concurs with Omode (2015) who said that information resources help to liberate the visually impaired students from the shackles of pity and sympathy. It also agrees with Dike (2007), Chaputula and Mapulanga (2016), and Kiambati (2021) in their respective works, as they all advocated for inclusive and special information resources and services for all persons with disabilities.

Table 2. Impact of the available information resources to the visually impaired students on library services in University libraries in Nigeria

Statement	SA	A	D	SD	Total
It fosters inclusive learning for visually impaired students	21 (52.5%)	15 (37.5%)	4 (10%)	-	40 (100%)
It helps to know the information needed for visually impaired students	10 (25%)	30 (75%)	-	-	40 (100%)
It provides the latest information to them	10 (25%)	22 (55%)	5 (12.5%)	3 (7.5%)	40 (100%)
It promotes librarians skills	22 (55%)	12 (30%)	3 (7.5%)	3 (7.5%)	40 (100%)
It fosters actualization of institutional objectives	12 (30%)	20 (50%)	3 (7.5%)	5 (12.5%)	40 (100%)

*7.4 Research Question Three: What are the challenges hindering the availability of information resources to visually impaired students in University libraries in Nigeria?*

Table 3 shows the challenges hindering the availability of information resources to the visually impaired students in University libraries in Nigeria. It revealed that visually impaired students face the problem of outdated information resources 28 (70%), conservation and preservation 32 (80%), erratic power supply 30 (75%), inadequate skills by users 32 (80%), insufficient funds for maintenance 33 (82.5%), while 23 (57.5%) disagreed that inadequately skilled librarians are a challenge hindering the availability of information resources to the visually impaired students. These findings agreed with the results of Eze (2014) that problems of availability and utilization of information resource to physically challenged students were outdated resources, and poor funding amongst others. He also agreed that there are inadequately skilled librarians.

Table 3. Challenges hindering the availability of information resources to the visually impaired students in University libraries in Nigeria

Statement	SA	A	D	SD	Total
Outdated information resources	12 (30%)	16 (40%)	8 (20%)	4 (10%)	40 (100%)
Conservation and preservation problems	12 (30%)	20 (50%)	4 (10%)	4 (10%)	40 (100%)
Inadequately skilled librarian	6 (15%)	11 (27.5%)	17 (42.5%)	6 (15%)	40 (100%)
Erratic power supply	14 (35%)	16 (40%)	6 (15%)	4 (10%)	40 (100%)
Inadequate skills by users	10 (25%)	22 (55%)	6 (15%)	2 (5%)	40 (100%)
Insufficient fund for maintenance	18 (45%)	15 (37.5)	4 (10%)	3 (7.5%)	40 (100%)



However, to supplement the analysis, results were gathered through open-ended questionnaires from four library Heads. Two respondents stated that there are insufficient funds to maintain the resources they have acquired, and the other two stated that there are insufficient ICT facilities to meet the educational needs of visually impaired students.

## 8. Conclusion

Providing information resources in university libraries for visually impaired students is one way to promote equal and inclusive university education in Nigeria. It may be contentious due to environmental degradation, socioeconomic inequality, architectural barriers, a negative public attitude, insufficient information resources and equipment, the cost of education, and the high cost of materials for effective teaching and learning, but it is attainable. According to the findings of the study, some university libraries have very few information resources for visually impaired students. While most university libraries have yet to implement the practice. The study also found that providing information resources for visually impaired students ensures equal education and accelerates social integration in the university educational system.

Nonetheless, information resources for visually impaired students in Nigerian universities are woefully inadequate. Furthermore, the study's findings can help refocus university libraries, the national university commission, university management, publishers, and other stakeholders on providing and improving various types of information resources for visually impaired students in order to ensure inclusive University education.

## Recommendations

Based on the findings of the study, the following recommendations are made;

- 1) University libraries should lead the campaign for inclusive education for visually impaired students by ensuring that their information resources are available.
  - 2) The university should be more proactive in implementing special learning courses for visually impaired students so that they can learn alongside their sighted peers.
  - 3) The National University Commission should encourage universities to incorporate special education programs into their faculties.
  - 4) Governments, university administrations, and libraries should acquire up-to-date information resources for visually impaired users.
  - 5) Libraries should make and implement policies and guidelines for training staff and conserve and preserve information resources for people with disabilities.
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