Level of Availability and Utilization of Information Resources for the Visually Impaired in Special Education Centre Libraries: A Case Study of South-East Geopolitical Zone in Nigeria

Iroeze, Pauline C.

University Librarian, Federal University of Technology, Owerri Email:paulinechinasa1980@gmail.com

Abstract: This study is an attempt to ascertain the level of availability and utilization of resources for the visually impaired in special education centre libraries in south east geopolitical zone of Nigeria. the study seeks to Identify the information resources for the blind and partially sighted available in the special education centre libraries in South-east, Nigeria; Ascertain the information services for the blind and partially sighted available in the special education centre libraries under study; Ascertain the extent to which the available information resources for the blind and partially sighted are being utilized in the special education centre libraries in South-East, Nigeria. Survey approach was adopted for this Study. Primary data were collected with the aid of an observational checklist and rating scale. The Population of the study is 185, 180 blind pupils and 5 library. A test-retest reliability method of two weeks interval was conducted, response obtained were subjected to Cronbach alpha method and a reliability co-efficient of 0.85 was obtained, which indicated high level of internal consistency. The study found a low level of availability and utilization of information resources for the visually impaired. It was suggested the more effort should be geared towards this population of visually impaired by the provision of materials, introduction of ICT, employing of qualified personnel.

Keywords: Availability, Utilization, visually impaired, special education.

1. INTRODUCTION

Library plays a fundamental role as an entryway to information resources, a center for creation and recreation of academic activities, the pivot of academic life, and the engine of learning that fuels the academic institution. According to Roberson (2005), a library is an organization that manages the intellectual products of society and processes them in such a way that the user can readily gain access to them. Libraries are agents of educational, social and economic development (Rachael, 2014). The principal aim of setting up libraries is to acquire, process, store, preserve and make available current and relevant print and electronic materials that will meet the need of its user at the fitting time (Pertti and Sanna, 2006). However, the library cannot achieve this wonderful feat by excluding a large percentage of its users, which are the visually impaired.

In the present day information age, access to information is imperative if an individual is to function efficiently whether sighted or visually impaired. Contributing to the consequence of information, Atinmo (2000) earlier stated that persons who are print visually impaired require the same accessibility like the sighted if they are to operate efficiently without disadvantages. This however, is in line with the major objectives of inclusive education, equality of education, education

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for all and library and information service for all, which are all enshrined in the Millennium Development Goals (MDG) and National Policy on Education of the Federal Republic of Nigeria (NPE) (2004).

According to Nafisa and Shaba (2016) the visually impaired has a significant enduring unpleasant effect on one's ability to carry out normal day to day activities and that both the causes and the consequences of this disability vary throughout the world.

Visually impaired' is a universal term used to express people who are partially-sighted or absolutely blind. There are about 314 million visually impaired people globally with 45 million totally blind. India is home of 26,810,557 (26.8 millions) disabled persons which constitutes 2.21% of the entire population of the country. 5 million persons are visually impaired sharing 18.8% of total disabled persons in the country. (Census of India, 2011)

Libraries, as the providers of information, should be at the vanguard of removing the barriers deterring access to information. The social model of disability by Oliver (1990) builds on the ideas of the United Kingdom's (UK) Union of the Physically Impaired Against Segregation (UPIAS) founded in the mid-1970s. This model is also endorsed by the UK's Society of College, National and University Libraries' (SCONUL) Access Working Group (Robertson, 2012). The model requires universal access to libraries, achieved by the construction of ramps alongside stairs, installation of automatic doors, provision of information in Braille and large print, and availability of assistive technologies such as Closed Circuit Television (CCTV), Braille embossers, Screen magnification and JAWS. The enactment of anti-discrimination acts in many countries is required to make mainstream library services accessible to people with disabilities. Libraries must be intended to be universally accessible, and universal access should be the custom; access for people with disabilities should not be an addendum to existing services. In digest, libraries should have equipment in place that facilitates both easy mobility and easier intellectual access for those who are challenged by visual impairments (Deines-Jones 2007).

The visually impaired student library users form part of the heterogeneous clientele who seek library services or information to complement their desire for educational attainment. Regrettably, due to their peculiar nature, their effectiveness to utilize the needed library resources and services seem to be greatly affected. It is bothersome too that information resources and services meant for this category of users tend to be rarely available for their utilization, and where they are available, they seem to be underutilized. These students and pupils need to have equal access to library and information resources to meet with their academic work and other information needs. If the students and pupils in the special education schools do not have equal access to library information resources, it may result in poor educational outcomes which may also de-generate to poor quality of life on their path. This leads to the questions, are there available information resources and services for the visually impaired in the special education schools under study? Are the available information resources and services utilized?

It is therefore a professional need to investigate the extent of availability and utilization of appropriate information resources for the visually impaired in selected special education centre libraries in South-East, Nigeria hence the commencement of the study.

2. REVIEW OF LITERATURE

Blind people are those visually impaired traditionally read Braille, Tape Audio-Books and large print books produced and provided by specialized libraries for the blind. New technologies have opened up new areas of reading, participations and activities for people with disabilities that were inaccessible only a few years ago. Visually impaired can access to computer programmes, Internet and digital resources using Braille displays, screen magnifying monitors, screen magnification, scanning software with OCR, screen readers and speech synthesis. These electronic aids are named Assistive or Adaptive Technology.

According to Smith (2004) special education for the blind and partially sighted is the education of people whose visual problem interfere with learning in a regular classroom and an alternative learning method, resources and services is provided. For education purposes, Castellano (2004) viewed special education for the blind and partially sighted as those schools that specialized in educating blind children whether at moderate, severe, profound blindness level. Special education for the blind can also be viewed as the school for the blind which requires a separate/specialized school environment, methods, learning resources, services and personnel to suit their learning. This classification/definition

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refers to the extent to which the student needs special education, and adaptation to learn. Blind and partially sighted students are educated in a variety of setting which ranges from classroom to separate school for the blind.

The declaration of the rights of physically challenged persons by the United Nations General Assembly (1975) stated that physically challenged persons have the right to education which will enable them to develop and hasten the process of their social integration. This is reflected in the Special Education Unit of the NPE (2004) where provision is made for special education.

WHO posited that visual disability ranges from mild loss of sight to complete blindness. Visual disabilities can be present at birth due to disease, birth trauma, or genetic conditions. They can also develop later in life as a result of stroke, injury, tumor, illness or aging. Visual impairment can limit a person's ability to get from place to place, to read and write or to follow signs. Such immobilized can also result in difficulties using computers or other devices such as telephone and automated teller machine. However, the number of methods can greatly reduce the limitation. For example, Braille is a code or raised dots that enable people who are blind to read by touch, people with visual immobilized can also use a variety of adapted computers and other accommodations.

Williamson's (1998) study explored both information needs and the preference for sources of information in 202 older people many of which had visual disability. It found that the most important information topics were health, income, finance (all respondents). Other topics were recreation, government, consumer and housing. In terms of sources of information, the most used by blind and visually impaired are family members and friends. Similar findings were in British studies (Tinker, 1993) where interpersonal sources were at the top. Next were media sources (newspapers, television and radio). Libraries are less frequently used and the direct contact with the librarian is preferred. A University of Alberta (Canada) survey of the information needs of blind and visually impaired citizens in the province of Alberta revealed (Balini Bala, 2000) that over 50 percent of the focus group used their public library because they prefer to receive personal services such as "speaching directly with a librarian, and leaving with a book in hand". The latest research projects that have been found in literature about improving library services for visual disabled people, have their conceptual framework based on studies which have emphasised the need to explore information in context and on models of information seeking behaviour.

3. INFORMATION RESOURCES FOR THE BLIND AND PARTIALLY SIGHTED

Libraries and information centers around the world have developed specialized information services to meet the library and information needs of their visually impaired clientele. These include:

Braille Resources: Braille is a system of reading and writing whereby raised dots are used to represent letters which are read by touch. Braille books are appropriate for users who have both visual and hearing impairment.

Tactile or Raised Surface Resources: is a system of embossed representation of objects such as alphabets, maps and animal. It exists for use by blind students. As a rule, Braille volumes do not contain tactile illustrations. Tactile illustration and raised drawings can be found in mathematics textbooks and in textbooks for science and history subjects much as they rely on charts and graphs to convey data.

Talking newspapers- audio recordings of news articles in the dailies.

Large printed materials- these are documents printed in large fonts for use by partially sighted users.

Moon Type: According to Adebimpe (2000) moon type was invented by a British man, Dr. William moon. He said this system does not consist of raised dots rather of simplified embossed symbols, adding that, moon type is used by those who become blind later in life and whose fingers are less sensitive in the reading of Braille

Suggestive Guidelines For Improving Library And Information Services To The Visually Impaired

Junaid,(2017) in his article outlined suggestive guidelines which are based on the 14 guidelines for development of library services to visually impaired prepared by IFLA(2005) which are

- 1. Mission
- 2. Library Legislation:

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- 3. National Strategy
- 4. Needs Assessment
- 5. Meeting User Needs
- 6. Cooperation and Networking
- 7. Work with Blindness Agencies
- 8. Collection Development
- 9. Access to Service and Collections
- 10. Reader Training and Awareness
- 11. Production of Alternative Formats
- 12. Ethics, Values and Awareness
- 13. Marketing and Advocacy and,
- 14. Marketing and Promotions Policy

Access to information and knowledge has never been more critical than in the present information age. Those who lack access to essential information are excluded from participating actively in social, political, and economic activities. The visually impaired, especially those living in the developing countries like Nigeria have been marginalized for too long because of the dearth of accessible materials.

4. OBJECTIVES OF THE STUDY

The general purpose of this study is to determine the extent of availability and utilization of information resources for the visually impaired in special education centre libraries in South-East, Nigeria. Specifically, the study seeks to:

- 1. Identify the information resources for the blind and partially sighted available in the special education centre libraries in South-east, Nigeria;
- 2. Ascertain the information services for the blind and partially sighted available in the special education centre libraries under study;
- 3. Ascertain the extent to which the available information resources for the blind and partially sighted are being utilized in the special education centre libraries in South-East, Nigeria;

5. METHODOLOGY

Survey approach was adopted for this Study. Primary data were collected with the aid of an observational checklist and rating scale. The Population of the study is 185, 180 blind pupils and 5 library. According to Nwana (1981), if a population is in many hundreds, one needs a sample size of 20%. But if a population is in few thousands, one needs a sample size of 10%.

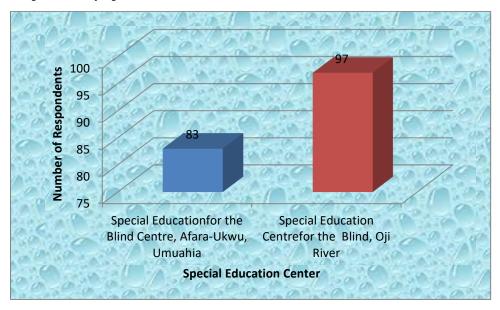
To guarantee the reliability of the instrument, it was administered on thirty (30) special education centre pupils and students out of the envisaged population of the study. A test-retest reliability method of two weeks interval was conducted, response obtained were subjected to Cronbach alpha method and a reliability co-efficient of 0.85 was obtained, which indicated high level of internal consistency.

In analyzing the data that were collected, frequency counts, standard deviation and mean score, were used to answer the research questions, while t-test of difference between sample and population was used to test hypothesis at 0.05 level of significance.

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6. RESULTS

Distribution of Respondents by Special Education Center



What information resources for the blind and partially sighted are available in the special education centre libraries in South-East, Nigeria?

Table 1: Information Resources Available for the Blind and Partially Sighted

S/N	Items	School I			School II			
		A	QTY	NA	A	QTY	NA	
1.	Braille Books		1028			903		
2.	Craft Books		36			21		
3.	Cassette Recorder		2			1		
4.	Talking Calculator		0			0		
5.	Abacus, Maybug slates, Pencil guide		6			3		
6.	Braille Printer		1			2		
7.	ICT/Internet Facilities		0			0		
8.	Book Scanner with Software		0			0	$\sqrt{}$	
9.	CCTV Magnifying Aid Unit		0			0		
10.	E-book		0			0		
11.	Larger Print Books		111			64		
12.	Talking Books		82			33		
13.	Moon Books		39			46		
14.	Audio Descriptive Videos		0			0		
15.	Tactile or raised surface		72			96		
16.	Audio Tapes		37		$\sqrt{}$	18		
17.	Twin Vision Books		44			28		
18.	Screen Magnifying Monitor		0			0		
19.	Kuzweil reader		0			0		
20	Computer with Voice Transmitter		0			0		
21.	Journals/Newspapers (in braille)	$\sqrt{}$	28			0		
22.	Story Books		15			9		
23.	Textbooks		240			56		
	Total	14		9	13		10	

Key: A -Available, QTY -Quantity, NA -NotAvailable,

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The data on table 1 shows the information resources for the blind and partially sighted available in the two special education centres. It can be seen that twenty-three (23) information resources (items) were considered during the research conducted using two special education centres, school I and school II.

In school I, from Table 1: It can be seen that out of the twenty-three (23) information resources (items) considered, fourteen (14) were available while nine (9) were not available. These available fourteen (14) information resources comprises: Braille books (1028 quantities), craft books (36 quantities), cassette recorder (2 quantities), Abacus (6 quantities), Braille printer (1 quantity), larger print books (111 quantities), talking books (82 quantities), moon books (39 quantities), tactile format (72 quantities), audio tapes (37 quantities), twin vision books (44 quantities), journals/newspapers (in Braille) (28 quantities), story books (15 quantities), and textbooks (240 quantities). Hence the total number of information resources available in school I is 1741. Also, the information resources available are greater than those that are not available.

In school II, from Table 1: It can be seen that out of the twenty-two (22) information resources (items) considered, thirteen (13) were available while ten (10) were not available. These available thirteen (13) information resources comprises: Braille books (903 quantities), craft books (21 quantities), cassette recorder (1 quantity), Abacus (3 quantities), Braille printer (2 quantities), larger print books (64 quantities), talking books (33 quantities), moon books (46 quantities), tactile format (96 quantities), audio tapes (18 quantities), and twin vision books (28 quantities), story books (9 quantities), and textbooks (56 quantities). Hence the total number of information resources available in school II is 1280. Also, the information resources available are greater than those that are not available.

What information services for the blind and partially sighted are available in the special education centre libraries under study?

S/N Items School I School II NA REMARK A NAREMARK A 1 Provision of on-sight support 2 Care giving services 3 Offering advisory services on subject areas or $\sqrt{}$ $\sqrt{}$ profession 4 Organizing Seminars, Lectures, Symposia And Exhibitions on the Use of Library 5 Providing translatory and copying of text into Braille 6 Library literacy skill services Counselling services $\sqrt{}$ 8 Guided tours of the library Provision of information about access, service and programs in alternative formats 10 Clear and concise communication between the $\sqrt{}$ library staff and the blind library users 11 Creation of an atmosphere for interaction and $\sqrt{}$ sharing of views among themselves 12 Provision of necessary library material for study $\sqrt{}$ and leisure 13 Reference, lending and readers advisory services 14 Engaging in association to discuss matters $\sqrt{}$ concerning the uplift of the blind 15 Attraction on the welfare of the visually challenged Encouragement to lead independent and productive life through books and counseling 9 7 **Total** 7 9

Table 2: Information Services Available for the Blind and Partially Sighted

Key: A -Available, NA -Not Available

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Table 2 above shows the results of the findings on the information services for the blind available in the special education centres in South-East zone of Nigeria. Out of the 16 listed information services for the blind and partially sighted, it is expected that the special education libraries for the blind will provide all, but only 7 are available in the two special education centre libraries for the blind and partially sighted.

In schools I and II, from Table 2: The library services that are available in these libraries are: provision of on-site support, care giving services, providing translatory and copying of text into Braille, library literacy skill services, guided tours of the library, provision of information about access, services and programs in alternative format, and clear and concise communication between the library staff and the blind and partially sighted students/pupils. The remaining 9 of the library information services such as offering advisory services on subject areas or professions, organizing seminars, lectures, and exhibitions on the use of library, creation of an atmosphere for interaction and sharing of views among themselves provision of necessary library resources for study and pleasure, reference, lending and readers advisory services, attraction on the welfare of the visually challenged, and encouragement to lead independent and productive life through books and counselling services, are not available. Hence, it can be seen that schools I and II have less information services for the blind and partially sighted required in the context of this research.

The extent of the utilization of the available information resources for the blind and partially sighted in the special education centres is not significant.

Table 3A: Extent of Utilization of Library Information Resources by the Blind and Partially Sighted

S/N	Items	VH	H	L	VL	\overline{X}	S. D	REMARK
		4	3	2	1			
1.	Braille books	232	72	16	1	3.52	0.70	Very High
2.	Craft books	108	102	38	11	2.85	0.98	High
3.	Cassette recorder	76	27	68	29	2.20	1.10	Low
4.	Abacus, Maybug slates, Pencil guide	44	63	48	35	2.09	1.04	Low
5.	Talking calculator	32	54	76	27	2.08	1.92	Low
6.	Braille printer	56	59	68	20	2.34	1.99	Low
7.	ICT/ internet facilities	8	36	46	54	1.58	1.80	Low
8.	E-books	36	51	94	18	2.19	0.86	Low
9.	Book scanner with software	84	15	66	32	2.16	1.14	Low
10.	CCTV magnifying aid unit	52	78	62	21	2.34	0.99	Low
11.	Kuzeweil reader	96	24	70	24	2.35	1.13	Low
12.	Large print books	68	51	58	28	2.25	1.09	Low
13.	Talking books	48	66	90	12	2.37	0.87	Low
14.	Moon books	36	33	70	36	1.92	0.95	Low
15.	Audio descriptive videos	52	60	56	30	2.18	1.04	Low
16.	Tactile or raised surface resources	28	27	78	36	1.86	0.88	Low
17.	Audio tapes	32	33	80	32	1.95	0.91	Low
18.	Twin vision books	36	69	18	50	1.90	1.09	Low
19.	Screen magnifying monitor	48	63	66	25	2.22	0.99	Low
20.	Computer with a voice transmitter	36	51	78	26	2.10	0.93	Low
21.	Journals/newspapers(in Braille)	48	54	46	38	2.04	1.07	Low
22.	Story books	52	24	84	28	2.07	0.98	Low
23	Textbooks	188	108	18	1	3.46	0.72	High
_	OVERALL					2.262	0.456	Low

Where VH means very high, H means high, L means low, and VL means very low.

It can be observed in Table 3A that out of the twenty-three (23) utilization of library information resources by the blind and partially sighted considered, only Braille books, craft books, and textbooks give an average utilization of library information resources above 2.50 among the twenty-three (23) items considered in this context.

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Table 3B: Summary of Analysis on Extent of Utilization of Available Information Resources by the Blind and Partially Sighted

N	μ	\overline{X}	S.D	t _{cal}	df	t _{crit}	Decision
23	2.50	2.262	0.456	-2.507	22	1.717	Not significant

Table 3A presented information on the extent of utilization of the available information resources by the blind and partially sighted in the special education centres. The finding showed that only Braille books, craft books and textbooks, with mean responses 3.52, 2.85 and 3.46 respectively, are being utilized by the special education students. The data in table 3B revealed that the calculated t-value is -2.507, the critical t-value is 1.717, while the degree of freedom is 22. Since the t_{Cal} is less than the t_{Crit} the null hypothesis ($\mathbf{H_0}$) is accepted. Hence, the extent of utilization of the information resources for the blind and partially sighted is not significant at 0.05 level of significance and 22 degree of freedom.

Based on the results of data analyses in answer to the research questions and test of hypotheses, the following findings were made:

- 1. The available information resources for the blind and partially sighted are Braille books, craft books, cassette recorders, abacus, Braille printer, larg print books, talking books, moon books, tactile format, audio tapes, twin vision books, journal/newspapers (in Braille), story books, and textbooks.
- 2. Out of the 16 listed information services for the blind and partially sighted that is expected to be provided by the special education libraries for the blind and partially sighted, only seven are available in the two special education centres considered in this context and they include: provision of on-site support; care giving service; provision of translatory and coping of text into Braille services; library litracy skills services; counselling services; guided tours of the library; information about access, services and programs in alternative formats and clear and concise communication between the library staff and blind library users
- 3. The extent of utilization of the information resources by the blind and partially blind is not significant at 0.05 level of significance and 22 degree of freedom

The finding of the study revealed that the information resources available for the blind and partially sighted being utilized in the special education centre libraries is below what is expected of the centres. This finding shows that very few of the information resources available for the blind and partially sighted in the special education centre libraries in South-East are being utilized. This finding is in agreement with the finding of Adetoro (2011) that though there are no adequate information resources available in the libraries for the physically challenged, that the available ones are not fully utilized by the pupils and students alike. Eze (2014) observed problems of library service to physically challenged students in polytechnic in South-East, Nigeria to include paucity of specialized library resources for the mobility, hearing and visually impaired students

Recommendations of the Study

Based on the findings of the study, the researcher recommends that:

- 1. The government at all levels should provide more information resources for the blind and partially sighted, thedeaf and hard of hearing pupils/students such as Braille books; tactile format, talking books; sign language books.in the special education centre libraries in the country due to the conveniences in their use by thesephysically challenged because of their special nature and the special services they offer these group in our society is enormous.
- 2. E-resources/adaptive technology such as kuzeweil reader; sub-titled DVDs; assistive listening devices screen magnification; computer with voice transmitter, among other, should be made available for the special need pupils/student in special education centres in South-Easth.
- 3. The use of Information Communication Technology (ICT) should be introduced to the libraries for the physically challenged in special schools in South-East.

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4. Every such library should employ qualified librarian/supporting staff who are clearly aware of the nature of work they do. Again, they should be exposed to their personal training from time to time. This will in no doubt, improve their proficiency in dealing with the physical challenged.

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