

AVAILABILITY OF LIBRARY AND INFORMATION RESOURCES FOR INCLUSIVE EDUCATION OF VISUALLY IMPAIRED PRIMARY SCHOOL PUPILS IN SOUTH EAST NIGERIA

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Abstract: *The study aimed at determining the availability of library and information resources for inclusive education of visually impaired primary school pupils in special education centres in South East Nigeria. The population of the study was 129, comprising 125 pupils and 4 librarians in 4 special education centres in the zone. One research question guided the study. Three instruments used for data collection were observation checklist, focus group discussion and interview. Data collected with the checklist were analyzed using frequency counts while responses from pupils and librarians were analyzed qualitatively. The findings revealed that the libraries of the special education centres under study lacked information resources in different subject areas and in alternative formats readable to visually impaired pupils. The result also showed that available resources in alternative formats were old editions of textbooks. Based on the findings, the study concluded that South East Nigeria lacked information resources in alternative formats of Braille, audio and ICT for the inclusive education of visually impaired primary school pupils. It was recommended among others that the government should make information resources available in alternative formats of Braille, audio and digital in all subjects taught in special education centres in South East Nigeria.*

Key words: *special education; centres; information resources;*

Introduction

Wehmeier(2000), refers to the word 'inclusive' as including a wide range of people. He also gives the meaning of education as a process of teaching, training and learning especially in schools or colleges, to improve knowledge and develop skills. In the light of these definitions, inclusive education is the type of education that involves all category of learners. In other words, it is the education that cuts across all category of learners, both normal and physically challenged like the visually impaired learners. This implies that every learner is carried along irrespective of his or her physical condition.

Visually impaired pupils are pupils with vision loss that adversely affect their educational performance. They are pupils with vision impairment that cannot allow them to read in a conventional way as others using their sight, hence they use other senses like sense of touch and sense of hearing to acquire information and knowledge. Friend (2009) opined that 'visually impaired' is a general term used to describe people who are partially sighted or completely blind. However, the Copyright (Visually Impaired Persons) Act 2002, broadly defined a visually impaired person (VIP) as someone who is blind, partially sighted and whose

eyesight cannot be improved by corrective lenses to allow them to read without a special level or kind of light, who is unable to either hold or manipulate a book or move the eyes to be able to read easily. In other words, any person who is not able to read in a conventional way is visually impaired.

Children with visual impairment need to acquire education that will make them independent, self-reliant and contributing members of the society. This can only be achieved by means of education which is facilitated through the provision of library and information resources for teaching and learning. Except information resources are repackaged in alternative formats that visually impaired pupils can access, they will remain cut off from the world of information and hence deprived of education.

Given the importance of library resources in the educational development of an individual, what is the availability of these resources in libraries, especially in developing countries like Nigeria? Library resources constitute the totality of the library holdings, which include print and non-print materials in various formats and ICT resources, with which the library meets the information needs of users. Majority of library resources are in print. Since the visually impaired cannot access information in print, there is need to repackage information in a format suitable to them, that is, in alternative formats. Alternative formats include Braille, audio/talking materials, large prints and ICT resources. Adetoro (2010) asserted that information materials can only become usable to persons with visual impairment when they are transcribed into alternative formats.

Traditionally, people with visual impairment read Braille, audio books and large print books produced by specialized libraries for the blind. Efforts are made by libraries to provide these alternative formats of information resources commercially or locally. Braille resources are materials written in Braille. Braille is a system of reading in which embossed impressions or raised dots are used to represent letters and numerals, these are read by touch. It is made up of six raised dots contained in three cells. Combination of one, two or more dots represents a letter, word, sentence or phrase. Braille resources are very good for users who are totally blind, but more useful to the young, who learn it early and have more sensitive fingertips. Braille is the true literary equivalent of reading and writing, and literacy is fundamental to a successful education, career and quality of life. To achieve independence, blind and visually impaired children need to be taught Braille, since early Braille education is crucial to literacy, and literacy is crucial to employment (Ryles, 2004). On the other hand, tactile picture books with Braille play an important role in supporting the development of reading skills. They are picture books read or perceived by touch. Skold (2007) opined that a blind child is not exposed to "sign-reading" in the same way that a sighted child is and that opportunities must be provided to acquaint a blind child with similar skills. The researcher further stressed that using tactile picture books is one way to develop these early literacy skills. Tactile picture books introduce Braille to a blind child at an early age. This early introduction is necessary. Again she stated that for many children with visual impairment, the reading of a tactile picture book is their first experience with a picture and an introduction to the pictures they will later meet in school books.

Audio/talking resources are audio versions of books, newspapers or articles. They could be recorded on cassettes, CD-ROM, DVD and on the Internet. Books, newspapers, magazines and other information resources could be recorded on tapes for the visually impaired. Such resources are utilized by sense of hearing. When audio resources are played, visually impaired users listen and access information. Audio resources are very important and are preferred by the majority of the visually impaired, especially those who met their impairment at an older age. Hence, it becomes necessary that libraries serving the visually impaired should enrich their audio collections. In view of this, information resources not available in audio form could be taped locally by such libraries. On the other hand, large print

materials are materials written in large fonts. This could be done manually or electronically with screen magnifying devices. Large print and magnifying devices enlarge reading materials to various sizes that enable people with low vision to read. They are very good for partially sighted users.

In addition to older formats, Information and Communication Technology (ICT) has opened new areas of reading, participation and activities for people with visual disabilities. This is why Ansari and Zuberi (2010) noted that print media are no longer the only primary means of information storage and delivery, as information can be digitized and delivered electronically. The visually impaired can now have access to computer programmes, Internet and digital resources using Braille displays, screen magnifying monitors, screen magnification software, screen readers and speech synthesis. These electronic aids are also known as assistive or adaptive technologies. The World Wide Web Consortium (W3C) defined assistive technology as "software or hardware that has been specifically designed to assist people with disabilities in carrying out daily activities". ICT has helped to reduce the digital divide between the sighted and the blind by providing information on their desktops. ICT facilities are highly flexible and provide great scope for usage by persons with vision impairment. Assistive technologies play a very important role in helping visually impaired persons access and use information. For instance, JAWS Pro Talking Software is used for conversion of a normal personal computer into a talking personal computer to enable the blind to operate computers independently including Internet access. Also, the Talking Typing Teacher Pro is specially designed talking typing tutorials for the blind with complete guidance and practice lessons for learning keyboarding skills and developing typing speed in a systematic manner (Koganuramath and Choukimath, 2009).

Availability of information resources is a key factor in library services. The availability of information resources in the library implies that information resources are in the library for immediate use. The importance of availability of information resources for the visually impaired cannot be over emphasized. This is why Eguavon and Eniola (2007) stressed the need for the development of library and information services to the visually impaired in schools. They stated that since their curriculum is not in any way different, the library should be adequately equipped to meet the needs of individual students including the visually impaired.

The importance of making information resources accessible to the visually impaired is now realized by different countries. Information resources for the visually impaired must be transcribed into alternative formats before they are made available for use. However, the use of alternative formats by visually impaired is limited by availability (Adetoro, 2011). The extent to which information resources are utilized is of paramount importance in librarianship. Visually impaired pupils are encouraged to make use of information resources that the library acquires. Ajobiewe (1999) opined that the provision and use of alternative formats such as Braille, large prints, talking books and the availability of reading aids, volunteers and transcription services in libraries serving persons with visual impairment in Nigeria will go a long way in making information accessible to the blind and partially sighted. It is believed that the availability of various alternative formats of information resources will greatly enhance their utilization. Ogba (2000) reported that visually impaired users of the Imo State Library Board visit the library section for the visually handicapped to use and borrow Braille books, moon type, talking books on cassette, large print periodicals and books.

There is a link between availability and utilization of information resources in the libraries. This is why Adetoro (2011) concluded that availability of information materials in libraries has a positive relationship with their utilization. This implies that the extent of utilization of information materials in libraries is determined by availability. In other words, library users can only use what is available in their libraries, including visually impaired

users. Various alternative formats of information resources are used by the visually impaired based on their availability. In their study, Adetoro and Atinmo (2012) discovered that Braille materials enjoyed high frequency of use among the respondents. They noted that Braille was the most utilized format because it was the most available format in all the libraries they studied.

Objective of the Study

The objective of the study is to determine the information resources available for inclusive education of visually impaired pupils in South East Nigeria.

Research Question

What are the information resources available for inclusive education of visually impaired pupils in South East Nigeria?

Method

The design adopted for the study is descriptive survey design. The population of the study was 129 respondents, comprising 125 visually impaired pupils in the special schools under study and 4 librarians of these schools. There are five states in South East Nigeria. This zone has four special education centres which are located in Umuahia, (Abia State); Isulo, (Anambra State); Opefia, (Ebonyi State) and Oji River, (Enugu State). Instruments used for data collection were observation checklist, focus group discussion and interview. Observation checklist was used to collect data on the resources available in the libraries in terms of quantity, while the focus group discussion was used to obtain data from pupils and the interview was used to collect information from the librarians.

Data collected with the checklist were analyzed using frequency counts and presented in tables.

Responses from the pupils and the librarians were analyzed qualitatively and integrated in the presentation.

Result

Braille											
English Lang.	-	43	34	-	210	4	215	23	459	70	529
Mathematics	-	49	18	407	176	4	359	25	553	485	1038
Igbo	-	-	-	-	24	-	71	-	95	-	95
Agric Science	-	-	-	-	9	-	-	-	9	-	9
Health Edu.	-	-	-	-	-	-	-	-	-	-	-
Social Studies	-	-	8	98	231	-	280	-	519	98	617
CRK/CRS	35	997	-	97	22	917	-	157	57	2168	2225
Arts	-	-	-	-	-	-	-	-	-	-	-
Computer	-	-	-	-	-	-	35	-	35	-	35
Civic edu.	-	-	-	-	-	-	-	-	-	-	-
Home econs.	-	-	-	-	-	-	-	-	-	-	-
French	-	-	-	-	-	-	-	-	-	-	-
Basic Sc.&Tech	-	-	13	18	124	-	144	-	281	18	299
Total	35	1,089	73	620	796	925	1,104	205	2008	2839	4847
Grand total		1,124		693		1,721		1,309		4847	

Table 1 above shows the availability of textbooks in various subjects. It reveals that the libraries of the special schools under study have textbooks in different subject areas. However, it is obvious that they are lacking textbooks in some subjects. It can be seen from the table that Christian Religious Knowledge (CRK) or Christian Religious Studies (CRS) has the highest number of textbooks, numbering 2,225. Out of the 2,225 textbooks, Abia has 1032, Anambra 97, Ebonyi 939 and Enugu 157. Core subjects of English language and Mathematics also have reasonable textbooks. Mathematics has a total of 1038 textbooks, out of which Abia has 49, Anambra 425, Ebonyi 180 and Enugu 384. English language on the other hand has a total of



529 textbooks, made up of Abia 43, Anambra 34, Ebonyi 214 and Enugu 238. Next is social studies with a total of 617 textbooks, out of which Anambra has 106, Ebonyi 231 and Enugu 280. Table 1 also shows that basic science

and technology has 229 textbooks, consisting of Anambra 31, Ebonyi 124 and Enugu 144. As can be seen from table 1, some subjects like Igbo, Computer and Agricultural Science have scanty collection of textbooks, while subjects like Health education, Home Economics and Civic Education have no textbooks at all.

Fig1 Torn Braille Bible

The availability of textbooks by formats, that is, print or Braille is also shown in table 1. It can be observed from the table that the total number of textbooks available in the centre libraries is 4847, consisting of 2008 print and 2839 Braille texts. These textbooks cover primary 1 to 6; whether print or Braille.

Table 1 indicates that all the libraries had reasonable Braille collections in Christian Religious Knowledge (CRK). Majority of the Braille collections were Bibles, that is books of the Bible. They were mainly Braille Bibles donated by foreign philanthropists. Due to the voluminous nature of Braille texts, it is not possible that all the books of the Bible will be transcribed into one volume, but into 66 volumes representing each book of the Bible. The implication of this is that in a situation where a library does not have all the books of the Bible in its Braille collection or where the ones available are old, worn out or torn, it does not have the complete Bible. This was the situation in almost all the libraries visited. Some of the Braille Bibles were worn out and torn. Fig1 shows one of the librarians showing a worn out and torn Braille book of the Bible. The group discussion also revealed that some of the libraries did not have the complete Bible. In one of the groups, a pupil lamented that he had not been able to find Psalm 115 in his library when he said "I have being looking for Psalm 115 in the library".

It can also be observed from table 1 that mathematics is another subject whose Braille collection is a little bit high. This was due to the fact that the centre in Anambra state got supply of Braille textbooks in mathematics, social studies and basic science and technology from UBEC (Universal Basic Education Commission) in 2012 as can be seen in fig 2. This gesture was based on request, according to the librarian.

Braille textbooks in English and Mathematics (Macmillan English and Mathematics) were old and worn out, their dots have become faint and the contents did not rhyme with current texts (New Macmillan English and Mathematics) in use in schools. Discussions from the groups also showed that the textbooks were old editions, as one of the pupils from a group said "they are teaching us with old modules". In agreement with this, one of the librarians during the interview noted that the Braille Macmillan English and Mathematics sent to them by Nigerwives long ago were worn out and old; stressing that new Macmillan textbooks were not available.



Fig. 2 Braille Collection in Anambra State Supplied By UBEC

Table 1 equally revealed that a large number of available textbooks were in print form. These print textbooks were of little or no benefit to the

pupils because they could not explore them to get the information therein. The researchers were made to understand that the reason for this was because some of the state governments normally send print textbooks to these centres as is the case with normal schools, especially in English language and mathematics. Since Braille is the major format for teaching and learning, it is expected that textbooks should be provided in Braille. If this is done, pupils can go to the library and use them independently.

Discussion of Findings

The result obtained from the observation checklist revealed that the libraries of the special education centres under study lacked information resources in different subject areas and different types. They lacked Braille textbooks in almost all the subjects taught in the schools, including core subjects. The few available were old editions. This was as a result of limited provision of information resources.

The implication of this is that the pupils could not utilize the library resources for their educational development. Since parents cannot afford the cost of provision of these resources, pupils are left to learn with inadequate resources. In other words, inadequate provision of resources is likely to be consequential to poor learning.

Also, inadequate provision of Braille textbooks in core subjects like English language and mathematics, (where pupils are expected to be given exercises to do at end of the lesson),

implies that they are given few exercises or none at all. Although these subjects were the subjects in which provision was done to a little extent, much needs to be done.

The result of the observation also showed that the libraries of the schools under study lacked information resources in alternative formats readable to the pupils in subjects taught in the schools. The major format in use in all the schools is Braille. However, Braille collections in subjects taught were scanty, and sometimes non-existent. The implication of this is that the pupils have difficulty in learning.

Equally, it was evident from the observation that neither audio resources nor ICT resources were available. None of the libraries under study had audio materials like talking books, recorded tapes, radios, tape recorders, and so on. ICT resources and facilities were also lacking in the various centre libraries. Except for computers, necessary software and hardware such as VERA, Zoomtext, that would have helped visually impaired pupils to access and use information were not available. If audio and ICT resources were available, they would have supplemented Braille resources.

The result is in line with the findings of Adetoro (2011) which indicated that the majority of information materials for visually impaired persons in libraries are not available. Also, the present study agrees with the findings of Eskay and Chima (2013) which revealed that the library lacks most of the materials that can be accessed by visually impaired persons. It also collaborates with Atinmo (2000) who observed that facilities in schools for visually impaired handicapped is scanty; and Babalola and Haliso (2011) who asserted that there were no Braille books in all the academic libraries they studied. Again, the result of the study affirmed the finding of Singh and Moirangthem(2010) which indicated that less number of course books in Braille and less number of course books in audio were the major problems confronting visually impaired students. Lack of information resources will greatly impede teaching and learning in the centres, thereby hampering the realization of the goals of inclusive education of visually impaired pupils, that is, to become independent and self-reliant. Since the information resources are not available in alternative formats, visually impaired pupils are not fully carried along in educational development. They seem to be cut off from the world of information.

Conclusion

Considering the importance of alternative formats of information resources to the visually impaired, their availability in libraries for visually impaired pupils becomes imperative. From the findings of this study, the researchers concluded that South East Nigeria lacks information resources in alternative formats for inclusive education of visually impaired primary school pupils.

Recommendation

Based on the findings of this study, the following recommendations were made:

1. Information resources should be provided in alternative formats readable to the visually impaired pupils. Efforts should be made to provide resources in Braille, audio or ICT formats in all the subjects taught in the schools.
2. The Federal Government or state governments concerned should endeavour to provide different types of information resources and in different subjects areas so that pupils will have variety of information resources for personal development.
3. The state governments should increase their subventions to the centres so that there will be enough fund to produce some of the information resources locally.
4. The state governments should provide basic learning equipment for visually impaired pupils, like Braille facilities, type writers, thermoform machines, audio and ICT facilities.

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