



Assessment of Information Seeking Behaviour of Physically Challenged Students in Selected Nigerian Tertiary Institutions

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ABSTRACT

This study examined the information seeking behaviour of the physically challenged students in selected Nigeria tertiary institutions. The study made effort to determine the predominant sources of information, accessibility to information materials and information services and the problems faced by the physically challenged students while seeking and using information/library resources and services. The study adopted survey design and data was collected using a questionnaire administered to two thousand respondents selected from three Nigeria tertiary institutions - the University of Ilorin, University of Ibadan and Federal college of education (special) Oyo. The findings of the study show that the majority of the respondents seek educational information, while their source of information is online. The major information material they consult was lecture note/handout, while the services rendered to them in the library are reference, abstracting and indexing services. Textbook is the only information material access by the respondents while the major challenges the physically challenged encountered are inadequate time to carry out information search and inability to locate information from the targeted sources. The physically challenged are encouraged to develop good time management. This will enable them to have enough time to search for their needed information. The library in each participated school should make sure they embark on regular shelve reading so as to help the physically challenged locate information through their target locations.

Keywords: Information seeking behaviour, Information needs, Information search, Information materials, Physically challenged students, Tertiary institution.

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I. Introduction

To thrive in this era of information explosion, everyone needs a variety of information, no matter the level of expertise in a field or profession. Everyone in this era needs information to make a decision or achieve a target goal or objective. In other words, the need for information in this era is irrespective of person and status. Therefore, the need for information by physically challenged undergraduates cannot be overemphasized. This is because information plays important roles in the life of man. As the normal persons make use of information for decision making so also are the physically challenged.

As the amount of available information grows, the problem of managing the information becomes more

difficult, this lead to information overload. Information overload refers to the state of having too much information available to make decision or remain informed about a topic. This information explosion and information overload gave birth to the concept of studying the information needs and seeking behaviors of different groups of users including the physically challenged students. Information need is an individual or group's desire to locate and obtain information to satisfy a conscious or unconscious need. It is the need for information that usually always arise and followed up by seeking for that information in order to satisfy that need.

Information seeking is an important part of people's everyday lives. To obtain information, people use Web search engines, consult authorities, ask questions from friends, visit the libraries, read newspapers, and watch

television, among others. Through such activities, people continually make judgments about how useful information is to their particular needs, actively construct meaning, and form judgments about the relevance of the information to their goal based on various attributes or criteria.

As information is power to everyone, so also it is to the physically challenged. The ability to obtain and use information on any subject gives the opportunity to choose a path from the many alternatives instead of been limited to a few, perhaps unwanted, or unfeasible choices. Williamson et al. (2007) stated that physically challenged individuals will often require specific information about their disabilities and ways of coping with life activities. Similarly, Roth (1991), asserted that the information needs of individuals with disabilities are likely to include, but not limited to service information, the nature of challenged conditions, environmental accessibility, civil rights, financial assistance and advice, research and statistics, and service delivery models. In addition to these, the physically challenged will need information that will help them in their educational activities. Unlike the natural school setting, access to information is hampered by several challenges depending on the severity of the disability, the institution and, the society at large. It is on that note that, Bopp & Smith (2001) postulated that each category of the physically challenged requires different adaptations of information service delivery.

There are persons with physical challenges in all parts of the world and at all levels in every society. The physically challenged student has a substantial long-term adverse effect on one's ability to carry out normal day to day activities. Both the causes and the consequences of physical disability vary throughout the world. According to The United Nations (1993), those variations are the result of different socio-economic circumstances and of the different provisions that States make for the wellbeing of their citizens. According to Sandhu et al. (2001), environmental, technical, and attitudinal barriers and consequent social exclusion reduce the opportunities for physically challenged to contribute productively to the household and the community and further increase the risk of falling into poverty. However, through education and rehabilitation, they cease to be a liability to the society and contribute to the national development.

Information-seeking behavior among the physically challenged undergraduate students may refer to the activities they engage where they identify their own needs for information, search for such information, and use or transfer that information. In the quest for information, different behaviours are manifested as students have different reasons for seeking information, using different levels of search skill and preference for some types of information bearing materials. Leckie, Pettigrew & Sylvain (1996) affirmed that information seeking among the physically challenged undergraduate students involves personal reasons for seeking information, the kinds of information being sought, and the ways and sources with which needed information is being sought.

Information seeking behavior is an individual's way

and manner of gathering and sourcing for information for personal use, knowledge updating, and development. Several studies seem to have been conducted on information seeking behavior. Most of these studies focused mainly on the information seeking behavior of the normal undergraduates at the expense of the physically challenged. Similarly, most of these studies were conducted in developed countries where the welfare of this group of people are taken seriously. In this part of the globe, people are just beginning to realize the need to treat this people just like the normal individuals. In the light of this, this study specifically focuses on obtaining information on the information needs of the physically challenged students, the predominant sources and channel consulted, level of accessibility to information materials and information services and the problems faced while seeking and using information. Therefore, this study examined the information seeking behavior of the physically challenged undergraduate students in selected Nigeria tertiary institutions in Nigeria.

II. Objectives of the Study and Research Questions

The main objective of this study is to assess the information seeking behaviour of the physically challenged students in the selected Nigeria tertiary institutions. Specifically, the study:

1. Determined the information needs of the physically challenged students.
2. Identified the predominant sources and channel consulted by the physically challenged students.
3. Determined the level of accessibility of information materials and information services to the physically challenged students.
4. Identified the problems faced by the physically challenged students while seeking and using information/library resources and services.

To achieve the objectives of this study, the following research questions were answered.

1. What is the information seeking pattern of the physically challenged students?
2. What are the information needs of the physically challenged students?
3. Which are the predominant sources and channel consulted by the physically challenge students?
4. What is the level of accessibility of the physically challenged students to information materials and information services?
5. What are the problem encounter by the physically challenged undergraduate students while seeking and using information/library resources and services?

III. Literature Review

Information plays a significant role in our daily professional and personal lives and we are constantly challenged to take charge of the information that we need for work, fun and everyday decisions and tasks (Bruce, 2005). Information seeking is a basic activity indulged in by all people and manifested through a particular behaviour. It is also an aspect of scholarly work of most

interest to academic librarians who strive to develop collections, services, and organizational structures that facilitate information seeking (Wiberley, 1989, p. 638). Ikoja-Odongo & Ocholla (2004) define information seeking as a process that requires information seekers, or what might be called personal information structures, such as a person's cognitive abilities, his or her knowledge, skills in relation to the problem or task domain, knowledge and skills specific to a system and knowledge and skills regarding information seeking. Similarly, information seeking is undertaken to identify a message that satisfied a perceived need (Wright and Guy, 1997). This activity may be actively or passively done when taking steps to satisfy a felt need (Ikoja-Odongo, 2002).

The information seeking behaviour involves personal reasons for seeking information, the kinds of information, which are sought, and the ways and sources with which needed information is sought. The Information Seeking Behaviour is an important part of the user studies, which study the casual relationship between the user of information and the information system. Taylor (1991) defined information behaviour as the product of certain elements of the information use environment. The elements are the assumptions formally learned or not, made by a defined set of people concerning the nature of their work, the kinds and structure of the problems deemed important and typical by this set of people, the constraints and opportunities of typical environments within which any group or subgroup of this set of people operates and works and the conscious, and perhaps unconscious, assumptions made as to what constitute a solution, or, better said, a resolution of problems, and what makes information useful and valuable in their contexts. Based on this definition Taylor believes that the information behaviour of different groups of people is also different (Taylor, 1991, p. 221-222).

The study of information behaviour began about thirty years ago and has been conceptualized as "how people need, seek, manage, give and use information in a different context" (Fisher, Erdelez, & McKehnie, 2006), including unintentional or passive information-gaining behaviours, as well as the avoidance of information (Case, 2007). While research into the information behaviours of youth followed much the same evolutionary path as general information behaviour studies, the shift in emphasis to the physically challenged users led to the increase in research concerning the information behaviour of physically challenged as a particular type of user.

IV. The Physically Challenged

All human beings are born equal and all have rights to education, equal opportunities and participation in society. But in the real world, there are some groups of people that do not have these rights due to their physical, mental, and social conditions. These people include the physically challenged. There is no single definition appropriate to all people with disabilities. Definitions are only useful only when they indicate how different physical challenges affect the use of facilities such as libraries. It is, however, important to understand the distinction between the terms impairment, disability and

handicap. As defined by the World Health Organization (1996) impairment refers to an abnormality of body structure, appearance, organ and system functioning. Disability is the consequence of impairment in functional performance and activity, handicap is the consequence which is reflected in interaction with, and adaptation to, the surroundings. According to Bopp & Smith (2001), the physically challenged population includes persons who are blind and visually impaired, individuals who are hearing-impaired, and persons with mobility impairment.

According to World Health Organization (1998) disability means any restriction or lack of ability to perform any activity in the manner within the range considered normal for a normal being. Physically handicapped children are defined as those whose non-sensory physical limitation or health problems interfere with the school attendance or learning to such an extent that special services, training equipment, materials or facilities are required. The term currently in use to denote such children is physically challenged. Physically challenged children are faced with those disabilities, which relate primarily to disorders of the skeleton, joints and muscles including club feet, poliomyelitis, amputation (a missing limb) and fractures or burns that cause contractures.

V. The Nature and Characteristics of Physically Challenged

There is a diverse range of disabilities in this palsy, spina bifida, amputations or limb absences, and muscular dystrophy. According to Connor et al. (1988), the physiological and functional problems of the physically challenge population are complex and diverse, and their handicaps may be temporary, intermittent, chronic, progressive, or terminal. Sandhu et al. (2001) describes the characteristics of the physically challenged to include:

Mobility: People who have reduced function of legs and feet and depend on a wheelchair or other aid for mobility. In addition to people who are born with a disability, this group includes a very large number of people whose condition is caused by age or accidents including illnesses caused by polio.

Vision: Blindness implies a total or nearly total loss of the ability to perceive form. Low vision implies an ability to use some aspects of visual perception, but with a greater dependency on information received from other sources.

Hearing: Hearing impairment can affect the whole range or only a part of the auditory spectrum. The term "deaf" is used to describe people with profound hearing loss, whereas "hard-of-hearing" is used for those with mild or severe hearing loss.

Speech and language: Speech impairment may influence speech in a general way or only certain aspects of it, such as fluency or voice volume. Language impairment may be associated with an intellectual impairment.

VI. Empirical Literature

Lawal-Solarin (2012) conducted a survey on library and information services to physically-challenged

students in academic libraries in Ogun state, Nigeria. It was concluded that the physically challenged students are not adequately taken care of in the institutions of higher learning. From their responses to questionnaires distributed, it was evident that they suffer a lot of deprivation. Their interests were never taken into consideration even in the architectural designs of the libraries. The study emphasised that physical access is the success and the source of opportunity in Education. Hence, accessibility is a civil right for the physically challenged. On that note, the study recommended that the federal and state governments need to enunciate policies that address the barriers faced by the physically-challenged in their quest to be educated. Moreover, the government of Nigeria should have a human right approach rather than a charity or welfare approach to physical challenges issues.

Anjiode (2010) investigated information resources and services provision to physically challenged in Plateau State Special Educational Institutions, Nigeria. Survey research method was adopted for the study and the population of the study consisted of staff and students of the special educational institutions in Plateau State. The three selected institutions were the Plateau State School of the Deaf, Gindiri School for the Blind and University of Jos Special Education Department. Data was collected using questionnaire, interview and observation. The study found among others that computer and Braille are the most available information resources for the physically challenged in Plateau State. It was also revealed that large print books, audio descriptive videos and talking books were the most accessible information resources by the physically challenged in Plateau State. The study concluded that information resources and services provided for the physically challenged are not suitable. Therefore, adequate and relevant information resources should be provided in order to meet the needs of the physically challenged in Plateau State. The study recommended that parents and non-governmental organizations should cooperate and make provision for information resources and services for the physically challenged in the state.

A study by Griffiths & Brophy (2005) found that 45% of physically challenged undergraduate students identified Google as their first resource when locating information; follow by the university library OPAC, which was used by 10% of the sample. It was also reported that physically challenged students use of search engines influence their perceptions and expectations of other electronic resources. Song (2005) in a study reported that 6% of the physically challenged students reported that they began their search at the university library Web page to conduct research; the remaining 94% reported that they started with either Google or Yahoo. This research indicates that behavior attributed to the Millennial generation of physically challenge students is worldwide.

Brown, Murphy & Nanny (2003) in their own study on information literacy of the physically challenged student reported that the physically challenged were overconfident in their search abilities but they mistake tech savvy for information literacy. In a study of Millennial search habits of the physically challenged undergraduate students, Holliday & Qin (2003) reported

that physically challenged students were quite capable of using technology, but they were less skilled in the critical thinking and questioning which is also part of the process of inquiry.

In a study of library instruction provided to physically challenged students, Ren (2000) noted that physically challenge undergraduate students on average reacted positively toward acquiring information search skills. Hart (1993) investigated the degree to which physically challenge undergraduate students in different disciplines vary in their dependence on books and journals. The study found that 14% of those students from science stream, 13% from social sciences and 21% from humanities relied more on books. Hart also reported that physically challenged students valued professional meetings for the purpose of gathering current information. Physically challenged students also considered interpersonal contacts, particularly off-campus contacts, as an important source for getting the needed information.

Sethi (1990) used a questionnaire to study the information-seeking behaviour of 256 physically challenged students in Indian universities and found that respondents preferred journals, books, government documents and reference sources for meeting their information needs. The study also revealed lesser use of indexing and abstracting sources, book reviews, conference proceedings, dissertations and theses, newspaper clippings and other non-book sources. Sethi (1990) noted that physically challenged student considered seminar and conferences as the third important source of information after books and journals. Colleagues were preferred over other channels, as they were considered familiar, reliable, immediately accessible, inexpensive, and often provide a concise answer synthesizing the available information (Dee & Blazek, 1993).

Al-Shanbari & Meadows (1995) reported that 36% of the physically challenged students in Saudi universities spent four hours per week on reading, whereas, almost three-quarters of the respondents spent the same amount of time on communicating with their colleagues to seek for information. The study concluded that physically challenged students in developing countries prefer informal channels for acquiring the needed information because of inadequate and irrelevant library collections, lack of information infrastructures, ineffective library services, lack of money to use fee-based information services, inadequately trained and less co-operative library staff. Guest (2000) noted that 85% of the physically challenged undergraduate students relied on their personal collection as a major source for information for teaching and research. The author also found that librarians were rated the lowest as a source for getting the needed information.

Mwila (1993) used a questionnaire to study the use of University of Zambia library by its physically challenged students for teaching and research purposes. It was found that most of their physically challenged students used library more often compared to normal students. Other studies conducted among the physically challenged undergraduate students have shown that most of them are inadequate in using libraries. Zondi (1992, p. 204) for instance conducted a study among first year physically

challenged undergraduate students at the University of Zululand, South Africa. The study established that the majority showed a very low level of competence in the use of a library and displayed poor information seeking patterns. Kamanda (1999, p. 44) in a similar study at the East African School Information Science, Makerere University, Uganda observed that more than half of the physically challenged students experience problems in locating library information materials. The study indicated that the majority of them either located materials through browsing the shelves or sought assistance from library staff, but they did not make full use of the card catalogue.

Based on the foregoing, there seems to be limited available empirical literature on library and information services provided for the physically challenged students particularly those studying in the tertiary institutions in Nigeria. The need to conduct a study such as this to unravel the information seeking behaviour of the physically challenged students in the selected Nigeria tertiary institutions is considered expedient, hence this study.

VII. Research Methodology

A survey design was used in this study. The survey design was considered appropriate as it allows for use of questionnaire as a data collection instrument and because it enable the researcher to collect data on the topic in question from a sample of the population in a short period.

The target population of this study consisted of mobility impaired and hearing-impaired physically challenged students at the University of Ilorin, University of Ibadan and Federal college of education (special) Oyo in Nigeria.

The sampling method used for this study was a census where all the physically challenged students in the selected tertiary institutions were sampled. This sampling technique was used because the population of the study is limited. As a result, the entire mobility and hearing-impaired students available when this study was conducted in the selected institutions were 195. This represents the sample for this study.

The instrument used for data collection was a questionnaire titled Physically Challenged Information Seeking Behaviour Questionnaire (PCISBQ). Questionnaire was used because it usually helps to gather in-depth information desired. The questionnaire was closed ended and divided into section A to G. Section A required the respondents' bio-data information while section B, C, D, E, F, G contained the items capturing data on each of the carriable focused in the study.

In order to ensure face and content validity, the instrument was given to two researchers on information seeking for scrutiny and expertise judgment with the view of checking the appropriateness of language and ensure that the contents are relevant to measure what it is supposed to measure before administration. The comments and suggestions by the experts indicate that the instrument has content and face validity and good for data collection in the study.

The method used to determine the reliability of the instrument used in this study was split half reliability method in which the instrument used was administered to 10 physically challenged students in one tertiary institution not eventually included in the study. The responses collected were divided into two equal halves and later subjected to correlation analysis. The results obtained returned an $r = 0.86$ through a Cronbach Alpha reliability method.

VIII. Procedure for Data Collection and Method of Data Analysis

The questionnaire was administered to the respondents in their respective institution by the researcher. The copies of the questionnaires were administered when students were in session because this is the time they could be easily reached. The copies of the questionnaire were personally distributed to the respondents by the researcher and collected immediately after completion. A total of 195 copies of questionnaire were administered out of which the entire 195 copies were returned completely filled. Due to the difference in the number of physically challenged students in each institution, the number of questionnaire administered varies in each institution. Twenty five (25) questionnaires were administered to twenty five respondents at university of Ilorin; twelve (12) questionnaires were administered to twelve respondents at university of Ibadan, while one hundred and sixty three (163) copies of the questionnaires were administered to one hundred and sixty three respondents at the Federal College of Education, Special, Oyo. This is because the College is specially a school for the physically challenged students and it's the only one in Africa. The administration of the questionnaire took three days. A day was used in each of the school.

The data collected from the field was analyzed using descriptive statistics of simple percentage and frequency count. The data was coded using SPSS version 16.0. The results of the analysis are presented as follows.

IX. Results

The demographic information of the respondents who took part in the study in Table I reveals that 83 (42.6%) of the respondents were in the first year of study, 53 (27.2%) of the respondents were in the second year their study, 45 (23.1%) were in their third year of study, while 14 (7.2%) of the respondent were in the fourth year of their study and none were in their fifth year. This indicates that the larger percentage of the students were in their first year of study. In addition, 116 (59.5%) of the respondents were male while 79 (40.5%) of the respondents were female. This indicates that there were more male that took in the study. On the age distribution of the respondents, 142 (72.8%) were between the age of 15-25 years while 53 (27.8%) of the respondents were between the age of 26-35, while respondents in the ages group 36-45 amounted to 0 (0%). This indicates that the majority of the respondents in the study were between the ages of 15-25 years.

Table II shows that 195 (100%) of the respondents seek educational information, while none (0%) of the

respondents indicated otherwise. The table reveals that, 144 (73.8%) of the respondents seek financial/economic information, while 51 (26.2%) of the respondents do not seek financial/economic information. A 152 (77.9%) of the respondents sought political information, while 43 (22.1%) of the respondents did not seek political information; 172 (88.2%) of the respondents sought health information, while 43 (11.8%) did not seek health information. In addition, the results indicate that 144 (73.8%) sought job information, while 51 (26.2%) did not seek job information; 144 (73.8%) of the respondents sought sport information, while 51 (26.2%) of the respondents did not seek health information. Moreover, 169 (86.7%) of the respondents sought information on self-development, while 26 (13.3%) of the respondents did not seek information on self-development; 157 (80.5%) sought national/local information, while 38 (19.5%) of the respondents did not seek for such information. A total of 132 (67.7%) of the respondents sought global information, and 62 (31.8%) of the respondents did not seek global information. This indicates that the majority of the respondents of the study sought educational information (100%) followed by health information and information for self-development.

TABLE I
DEMOGRAPHIC DISTRIBUTION OF THE RESPONDENTS

Year of study	Frequency	Percent (%)
100 Level	83	42.6
200 Level	53	27.2
300 Level	45	23.1
400 Level	14	7.2
500 level	0	0
Total	195	100.0
Gender		
Male	116	59.5
Female	79	40.5
Total	195	100.0
Age		
15-25	142	72.8
26-35	53	27.2
36-45	0	0
Total	195	100.0

TABLE II
INFORMATION SEEKING SOUGHT BY THE PHYSICALLY CHALLENGED

What type of information do you seek?	Yes	No
Educational information	195 (100%)	0 (0%)
Financial/Economic information	144 (73.8%)	51 (26.2%)
Political information	152 (77.9%)	43 (22.1%)
Health information	172 (88.2%)	43 (11.8%)
Job information	144 (73.8%)	51 (26.2%)
Sport information	144 (73.8%)	51 (26.2%)
Information for self-development	169 (86.7%)	26 (13.3%)
National information/local information	157 (80.5%)	38 (19.5%)
Global Information	132 (67.7%)	62 (31.8%)

Table III shows the main sources consulted by the physically challenged students when seeking for

information. A total of 160 respondents representing (82.1%) of the respondents usually consult colleagues for information, 176 (90.3%) of the respondents use lecture notes/hand-out as sources of information, 175 (89.7%) of the respondents visit the library, 174 (89.7%) of the respondents use internet as sources of information, 143 (73.3%) of the respondents consult social networks, and 150 (73.3%) of the respondents use bookshop as sources of information. Furthermore, the results demonstrate that 169 (86.7%) of the respondents use textbooks as sources of information, 87 (44.6%) of the respondents use thesis/dissertations as sources of information while 108 (55.4%) of the respondents did not use thesis/dissertations as sources of information as sources of information.

TABLE III
PREDOMINANT SOURCES CONSULTED BY THE PHYSICALLY CHALLENGED STUDENTS

Main Sources of Information	Yes	No
Colleagues	160 (82.1%)	35 (17.9%)
Lecture Notes/Hand-out	176 (90.3%)	19 (9.7%)
Library	175 (89.7%)	20 (10.3%)
Internet	174 (89.2%)	21 (10.8%)
Social Networks	143 (73.3%)	52 (26.7%)
Bookshop	150 (76.9%)	45 (23.1%)
Textbooks	169 (86.7%)	26 (13.3%)
Thesis/Dissertations	87 (44.6%)	108 (55.4%)
Newspaper	155 (79.5%)	40 (20.5%)
CD-ROMs/ Database	133 (57.9%)	82 (42.1%)
Print Journals	130 (66.7%)	65 (33.3%)
Electronic Resources	137 (70.3%)	58 (29.7%)
Librarians	144 (73.8%)	51 (26.2%)

A total of 155 (79.5%) of the respondents use newspapers as source of information, 133 (57.9%) of the respondents use CD-ROMs and 130 (66.7%) of the respondents use print journals as sources of information. In addition, 137 (70.3%) of the respondents use electronics as a source of information and 144 (73.8%) of the respondents use librarian as a source of information, 51 (26.2%) of the respondents do not use librarian as a source of information. In summary, the major sources through the physically challenged sought for information are lecture note/handout, library, internet and colleagues.

Table IV shows the channel preferred by the physically challenged students in seeking for information. A total of 90 (46.2%) of the respondents prefer online source for finding information, 45(23.1%) of the respondents prefer offline source while 60 (30.8%) of the respondents prefer both the online and offline source of finding information.

TABLE IV
THE PREFERRED CHANNEL OF INFORMATION BY PHYSICALLY CHALLENGED STUDENTS

E. What channel do you prefer for finding information?	Frequency /%
Online sources	90 (46.2%)
Offline sources	45 (23.1%)
Both sources	60 (30.8%)

Table V shows that 80 (41.0%) of the respondents have access to a great extent to reference services, 75 (38.5%) of the respondents have moderate access to reference services, 40 (20.5%) of the respondents have access to reference services to a low extent. A total of 54

respondents (27.7%) have access to abstracting and indexing to a great extent, 81(41.5%) of the respondents have access to abstracting and indexing services to a moderate extent; while 60(30.8%) of the respondents have access to abstracting and indexing services to a lower extent. 72 respondents (36.9%) have access to current awareness services to a great extent, 74(37.9%) of the respondents have access to current awareness services to a moderate extent, and 49(25.1%) of the respondents have access to current awareness services to a lower extent. In terms of lending services, 75(38.5%) of the respondent have greater access to lending services, 73(37.9%) have moderate access while 47(36.9%) of the respondents have access to lending services to a lower extent. 64 respondents representing (32.8%) of the respondents have access to inter-library loan services to a great extent, 59(30.3%) of the respondents have access to inter-library loan services to a moderate extent while, 72(36.9%) of the respondents have access to inter-library services to a low extent. The results imply that, the physically challenges students have access to reference and lending services to a great extent and have access to abstracting and indexing services to a moderate extent.

TABLE V
THE ACCESSIBILITY TO LIBRARY SERVICES BY THE PHYSICALLY CHALLENGED STUDENTS

To what extent do you have access to these services in the library?	Great extent	Moderate	Low extent
Reference services	80 (41.0%)	75 (38.5%)	40 (20.5%)
Abstracting and indexing services	54 (27.7%)	81 (41.5%)	60 (30.8%)
Current awareness services	72 (36.9%)	74 (37.9%)	49 (25.1%)
Lending services	75 (38.5%)	73 (37.4%)	47 (24.1%)
Inter-library loan services	64 (32.8%)	59 (30.3%)	72 (36.9%)

Table VI shows that 145(74.4%) of the respondents have access to text books to a great extent, 34(17.4%) of the respondent have access to text books to a moderate extent, while 16(8.2%) of the respondent have access to text books to a low extent. The results reveal 85(43.6%) of the respondents have access to journals to a great extent and 70(35.9%) of the respondents have access to journals to a moderate extent while 40(20.5%) of respondents have access to journals to a lower extent. For newspapers, 113(57.9%) of the respondents have access to a great extent, 50(25.6%) of the respondents have access to a moderate extent while 32(16.4%) have access to a low extent. 58 respondents (29.7%) of the respondents have access to abstract and indexes to a great extent, 74(37.9%) have access to a moderate extent and 63(32.3%) of the respondents have access to a low extent. A total of 121(62.1%) of the respondents have access to dictionary to a great extent 46(23.6%) of the respondents have moderate access to dictionary while 28(14.4%) of the respondents have access to dictionary to lower extent. Furthermore, the results show that 82(42.1%) of the respondents have access to electronic materials to a great access, 50(25.6%) of the respondents have access to electronic materials to a moderate extent and 60 (32.3%) of the respondents have access to electronic materials to a moderation. On map and atlases, 63(32.3%) of the

respondents have great, 65(33.3%) have moderate access while 67(34.4%) of the respondents have low access. The results imply that the physically challenged have greater access to information materials as textbooks, dictionary and newspapers.

TABLE VI
ACCESSIBILITY OF INFORMATION MATERIALS TO THE PHYSICALLY CHALLENGED STUDENTS

To what extent do you have access to these information materials?	Great extent	Moderate	Low extent
Text books	145 (74.4%)	34(17.4%)	16(8.2%)
Journals	85 (43.6%)	70 (35.9%)	40 (20.5%)
Newspapers	113 (57.9%)	50 (25.6%)	32 (16.4%)
Abstract & Indexes	58 (29.7%)	74 (37.9%)	63 (32.3%)
Dictionary	121 (62.1%)	46 (23.6%)	28 (14.4%)
Electronic materials	82(42.1%)	50 (25.6%)	63 (32.3%)
Map and Atlas	63 (32.3%)	65 (33.3%)	67 (34.4%)

Table VII shows the problem faced by the physically challenged students while seeking for information. A total of 177 (90%) of the respondents indicated the arrangement of the information materials does not cater for the physically challenged. A 156 (80%) of the respondents are faced with the insufficient time to engage in search process and 144 (73.8%) of the respondents do not possess adequate search skills, 139 (71.28%) indicated high cost of access to some information sources and their materials; 129 (66.15%) face the problem of information overload while 105 (53.84%) indicated use of wrong keywords. The results here imply that the most prominent problems encounter by the physically challenged in the information seeking process are the arrangement of the information materials not taken care of them, inadequate time available for their search, and limited skills to search for the information.

TABLE VII
THE PROBLEM FACED WHILE SEEKING FOR INFORMATION

Problem faced while seeking information?	Frequency %	Mean	Std. Dev.
The arrangement not cater for the Physically challenged	177 (90.76%)	21.4	9.12
Inadequate time to search	156 (80.0%)	19.2	8.67
Inadequate search skills	144 (73.84%)	16.7	7.81
High Cost of Access to some sources	139 (71.28%)	13.4	7.22
Information Overload	129 (66.15%)	10.3	6.81
Use of wrong keyword	105 (53.84%)	8.4	6.01

X. Discussion of Findings

The aim of this study was to investigate the information seeking behaviour of physically challenged students in some selected tertiary institutions in Nigeria. The specific objectives are to establish the information needs of the physically challenged students; examine the predominant sources and channel consulted by the physically challenged students; to find-out the level of the accessibility to information materials and information services by the physically challenged students; and identify the problems faced by the physically challenged students when seeking for information.

The first finding of the study shows that the entire the respondents of the study seek educational information with the highest percentage and frequency. This is supported by the study conducted by Adesina (2003) who reported identified Information for educational development as the most prominent information sought by the physically challenged students. This researcher argued that educational information is paramount importance. The explained that as student, additional information would be needed to build on what was taught in the classroom because everyone want to do well and go home with good results irrespective of their status. This might be the reason why educational information was indicated as the entire respondents in the study.

The second findings in this study demonstrate that the predominant source the physically challenged undergraduate students seek for information is through online and the most sought information is the one to buttress the lecture note/handout. In this dispensation, it is observed that hardworking and industrious students are making good use of the opportunities provided by ICT particularly the internet. The participants in this study have demonstrated to be part of the category of such students. This is because they are able to go online search for additional information to the lecture notes/handout given by the lecturers.

The third finding in this study reveals that, the physically challenges students have access to reference and lending services to a great extent and have access to abstracting and indexing services to a moderate extent. So also, the most accessible materials are the textbooks, reference book (dictionary) and newspapers. The services render in the library if whatever type is no respecter of person but rather for the generality of the users no matter the category. This might be responsible for the results on the physically challenged accessibility to reference, lending and indexing/abstracting services. However, this result contradicts Sethi (1990) who reported that there was lesser use of indexing and abstracting sources, book reviews, conference proceedings, dissertations and theses, newspaper clippings and other non-book sources. Looking at the period the study was conducted in comparison to the present one, there is a wide gap of about 27 years. Within the period of these years a number of development has taken place. Most of those reference materials in 1990 were not available in electronic form in most libraries compare to now where nearly all the libraries make available what they have in print also in electronic format. This might the reason behind the variation in the results of the current and the previous study by Sethi (1990).

The last finding in this study on the problems faced by the physically challenged students while seeking and using library resources and services. The finding shows that the major challenges include inadequate time to search, inability to locate targeted source. These results negate the finding by Lwal-Solarin (2012) whose study revealed that the physically challenged respondents in their study encounter physical or environmental barrier to gain access or use the library, encounter attitudinal barrier and technological barrier. It is possible that the respondents have developed more information search skills than before hence all the inadequacies reported

hindering the search process by the physically challenged in 2012 are no more relevant except that the respondents don't have enough time at their disposal to engage in search activities.

XI. Conclusions

The study has investigated the information seeking behaviour of physically challenged students in selected tertiary institutions in Nigeria. The results have shown that the predominant information needs of the physically challenged undergraduate students is educational information while the predominant sources and channel of information consulted is the online source and the major material consulted in the lecture note/handout. Results also demonstrate that respondents have access to information materials such as textbooks and reference books (dictionary) and information services such as reference services, indexing and abstract services. The major problems faced by these students' inadequate time to search and inability to locate information from the target source.

XII. Recommendations

Base on the findings in this study, the following are recommended: The physically challenged are charged to develop good time management. This will enable them to have enough time dedicated to search for their needed information. The library in each participated school should make sure they engage in regular shelve reading so as to help the physically challenged locate information through their target locations. They should also assist in the procurement of facilities that will aid the physically challenge students' information seeking behaviour. The libraries in the tertiary institutions should conduct research on user education provided to the physically challenge students to ensure more effective use of the library and information resources. The library should acquire more information resources and facilities as well as provide training to improve the search skills of the physically challenged.

XIII. Suggestions for Further Studies

There is no doubt about the fact that limited studies are available on the information seeking behaviour of the physically challenged students particularly in the Nigeria tertiary education context. In the light of this, future researcher should consider researching on Information seeking behaviour of physically challenged students in other selected Nigerian Tertiary institutions. A similar study can be conducted on library literacy for physically challenged undergraduate students, information retrieval skill among undergraduate physically challenged students, and library provision and usage of assistive technology for the physically challenged undergraduate students and more so library patronage by the physically challenged post-graduate students.

References

- Adesina, E. R. (2003). Towards meeting the library and information needs of the handicapped in Nigeria. In Adedaja, T.A. and Ajobiewe, Theo (ed.). *Issues in Coping with Disability*, 205.
- Ajiboye, J. O. & Tella, A. (2007). University undergraduate students' information seeking behaviour: implications for quality in higher education in Africa. *The Turkish Online Journal of Educational Technology*, 6(1), 40-52.
- Al-Shanbari, H. & Meadows, A. J. (1995). Problems of communication and information-handling among scientists and engineers in Saudi Universities. *Journal of Information Science*, 21(6), 473-478.
- Anjiode, K. S. (2010). Information Resources and services to physically challenge in plateau state special educational institutions. *Samaru Journal of Information Studies*, 10(1&2), 1-11.
- Bopp, A. & Smith, J. (2001). *Reference and information services. an introduction. libraries unlimited*. Colorado.
- Brown, C., Murphy, T. & Nanny, M. (2003). Turning techno-savvy into info-savvy: Authentically integrating information literacy into the college curriculum. *Journal of Academic Librarianship*, 29(6), 386-399.
- Bruce, H. (2005). Personal, anticipated information need. *Information Research*, 10 (3), 25-40.
- Case, D. (2002). *Looking for information: A survey of information seeking behaviour*. London: Academic Press.
- Case, D. O. (2006). *Looking for information: A survey of research on information seeking, needs and behaviour*. Amsterdam: Elsevier.
- Dee, C. & Blazek, R. (1993). Information needs of the rural physician: A descriptive study. *Bulletin of the Medical Library Association*, 81, 259-264.
- Fisher, K. E, Erdelez, S. & McKechnie, L. (2005). *Theories of information behavior*. Medham, NJ: *Information today*. Retrieved April 30, 2015 from <http://store.yahoo.com/infotoday/theorofinbeh.html>
- Griffiths, P. (2005). Performing an information audit. *Records Management Bulletin*, 126, 19-21
- Hart, R. L. (1993). *The information-gathering behaviour of the faculty of a four-year state college*. (PhD Thesis).University of North Carolina.
- Holliday, W. & Qin, L. (2004). Understanding the Millennials: updating our knowledge about students. *Reference Services Review*, 32(4), 356-366.
- Ikoja-Odongo, R. (2002). *A study of the information needs and uses of the informer sector of Uganda*. (Unpublished PhD Thesis). South Africa: University of Zululand.
- Ikoja-Odongo, R. & Ocholla, D. N. (2004). Information seeking behaviour of the informal sector entrepreneurs: The Uganda experience. *Libri* 54, 54-66.
- Kamanda, R. W. (1999). *Library-use by university students: Case study of the East African School of Library and Information Science*. (Unpublished DLIS Dissertation). Kampala: Makerere University.
- Lawal-Solarin, E. O. (2012). A survey of library and information services to physically challenged students in academic libraries in Ogun State, Nigeria. *Library Philosophy and Practice*. Retrieved from <http://unllib.unl.edu/LPP/>
- Leckie, G. J., Pettigrew, K. E. & Sylvain, C. (1996). Modelling the information seeking of professionals: a general model derived from research on engineers, health care professionals and lawyers. *Library Quarterly*, 66(2), 161-193.
- McCullagh, L. & O'Connor, S. (1989). Overseas students, full-fee paying students and the utilization of library resources in Australian tertiary institutions. *Australian Academic and Research Libraries*, 20 (2), 100-112.
- Mwila, A. B. (1993). *The use of the University of Zambia library by the social science, humanities and science faculties*. (PhD. Thesis). University of Michigan.
- Ren, W. H. (2000). Library instruction and college student self-efficacy in electronic information searching. *Journal of Academic Librarianship*, 26 (5), 323-8
- Roth, H. (1991). Planning information services in the disability field: Some essential steps. *Link-Up*, 66.
- Sandhu, A. (2001, July 28). Information and communication technologies and disability in developing countries. *A Technical Note Newspaper*, p. 2.
- Sethi, A. (1990). *Information-seeking behaviour of social scientists: An Indian conspectus*. New Delhi: Hindustan Publishing Corporation.
- Song, Y. S. (2005). A comparative study on information-seeking behaviors of domestic and international business students. *Research Strategies*, 20, 23-34.
- Taylor, R. S. (1991). Information use environment. *Progress in Communication Sciences*, 10, 217- 225.
- United Nations. (1993). *Standard rules on the equalization of opportunities for persons with disabilities*. Retrieved February 22, 2010 from <http://www.un.org/documents/ga/res/48/a48r096.htm>
- Wiberley, S. E & Jones, W. G. (1989). Patterns of information seeking in the humanities. *College & Research Libraries*, 50(6), 638-645.
- Williamson, K., Bernath, V., Wright, S. & Sullivan, J. (2007). Research students in the electronic age: Impacts of changing information behavior on information literacy needs. *Communications in Information Literacy*, 1(2), 47-63.
- Wright, M. & Guy, L. (1997). *Where do I find it and what do I do with it: Practical problem-solving in the data library*. Retrieved April 6, 2013 from [http://dphs.dacc.wisc.edu/types/data reference.html](http://dphs.dacc.wisc.edu/types/data%20reference.html)
- World Health Organization. (1998). *Health promotion glossary*, World Health Organization, Geneva. Retrieved March 9, 2009 from

http://whqlibdoc.who.int/hq/1998/WHO_HPR_HEP_98.1.pdf

World Health Organization (1995). *Ad hoc committee on health research relating to future intervention options. investing in health research and development*. Geneva: WHO.

Zondi, L. E. (1992). Library use skills and information-seeking patterns of first year students at the University of Zululand, South Africa. *South African Journal of Library and Information Science*, 60(4), 204-208.



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