

DEPARTMENT OF INFORMATION STUDIES

UNIVERSITY OF GHANA, LEGON

PROVISION OF LIBRARY SERVICES FOR THE VISUALLY IMPAIRED

IN PUBLIC UNIVERSITIES IN GHANA

BY

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OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF
PHILOSOPHY DEGREE IN INFORMATION STUDIES.**

JULY, 2016

DECLARATION

I, Paulina Nana Yaa Kwafoa hereby declare that this thesis is the result of my original work under the supervision of Dr. Musah Adams and Prof. Harry Akussah and that no part of it has been presented for another degree in this university or elsewhere.

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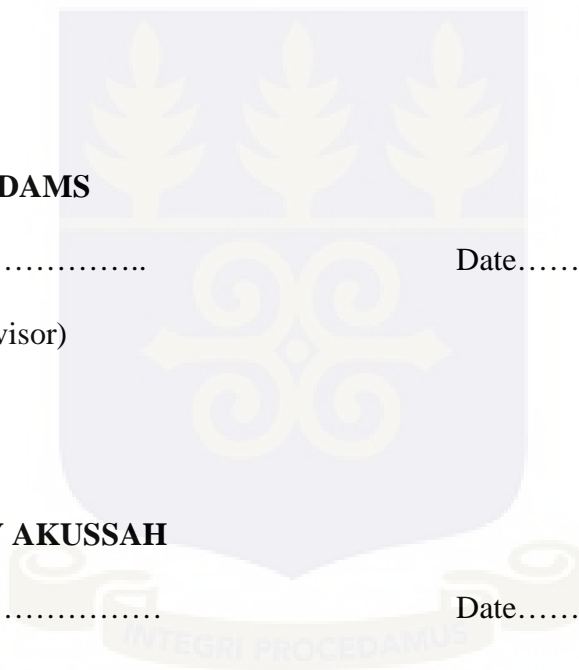
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Date.....

(Co-Supervisor)



DEDICATION

To the Glory of God, this work is dedicated to my late son Kwame Yeboah Benneh and grand-daughter Abena Yeboaa Benneh in whom I draw my consolation.



ACKNOWLEDGEMENTS

I wish to register my deepest appreciation and gratitude to all those who helped in diverse ways to make the writing of this thesis a reality.

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I am most grateful to Mr. Clement Entsua-Mensah, the Librarian of University of Cape Coast whose encouragement and leadership has brought me this far.

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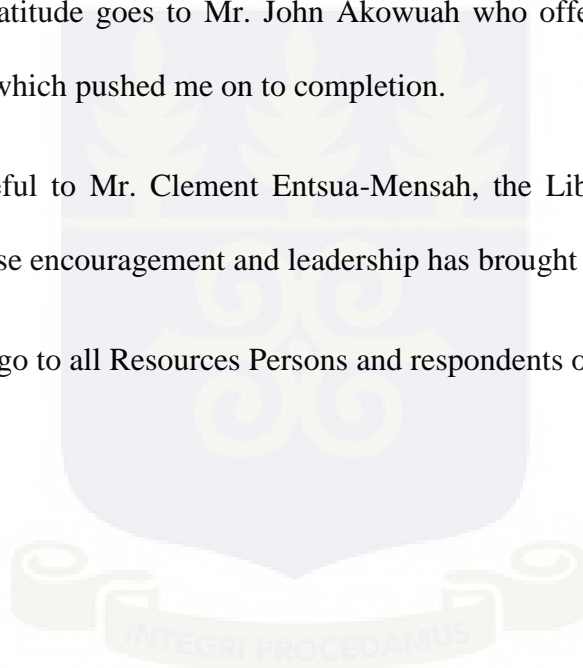


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ABBREVIATIONS

UCC	University of Cape Coast
UEW	University of Education, Winneba
UG	University of Ghana, Legon
VIS	Visually Impaired Students
CCTV	Close-circuit television



ABSTRACT

This study sets to find out the kinds of services the public university libraries provide for the visually impaired students in the universities in Ghana. The libraries of three public universities known to practice inclusive education for the visually impaired were purposively selected for the study. The libraries are the Sam Jonah Library, University of Cape Coast, the Osagyefo Library at University of Education, Winneba and the Balme Library at University of Ghana Legon. Questionnaire and interview guide were used as data collection tools. In all a total of 119 respondents were purposively selected comprising target population of all the 116 visually impaired students from the three universities and the three librarians of the public university libraries under study because of their small population size. Descriptive statistics using SPSS was used in analyzing the data. . The study revealed that there was low awareness among the visually impaired students over the kinds of services the libraries provide; equipment and materials for providing service to the visually impaired were found to be inadequate; the libraries were found to be grappling with four main challenges, financial, resource persons, lack of equipment and infrastructure of which financial constraints was the strongest impairment. It was recommended that the central administration of the universities organise special orientation for visually impaired students to improve students' awareness of existing services; review their recruitment of resource persons and set up special fund to acquire assistive technology equipments.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

This chapter covers the background to the study; it also looks at the study area, statement of the problem and purpose of the study. The objectives, research questions, significance of the study and scope of the study are also in this chapter. The chapter ends with the theoretical framework and organisation of the study.

The World Health Organization (WHO), (2014) estimates that there are about 285 million visually impaired people worldwide, with 39 million totally blind and 246 million having low vision. Eighty-two percent of the visually impaired live in developing countries, and women and people above 50 years of age are at higher risk. The term ‘visually impaired’ is a general term that is used to describe people who are partially-sighted or completely blind.

However, according to the United Kingdom National Health Services (NHS) (2013), Visual impairment is when a person has sight loss that cannot be fully corrected using glasses or contact lenses. It is estimated that as many as two million people in the United Kingdom may be living with this sort of sight problem. Of these, around 365,000 are registered as blind or partially sighted.

In Ghana, disabled persons including visually impaired students, grapple with challenges in their attempt to access library facilities and information resources in their academic pursuit. Notable among these challenges are social discrimination and cultural bias. It is a well known fact that, the library facilities in some public libraries,

including public academic institutions were constructed with very little or no attention or consideration to the needs of handicapped persons, including students and thus limiting their access to information in libraries.

A university as a centre of higher learning admits qualified applicants to pursue prescribed programmes and courses for a specified period. Admission of students is not based on the physical condition of applicants but on merit; in which case, both the physically challenged and able-bodied have equal chance to be admitted to a programme or course of their choice. In view of this, universities admit students from all walks of life significant numbers of whom are visually impaired.

Wong and Webb (2011) in a longitudinal study covering a period of 3 years (2007-2009) revealed that library services did indeed impact on student learning outcomes. Studies by Zhong and Alexander (2007) also showed that library services help students to accomplish their academic work efficiently and successfully. However, one is yet to find out how library services impact on the performance of visually impaired students since, most library resources are in print formats (Eskay & Chima, 2003).

While visually impaired people may not be able to read the normal print, they have the right to information and the right, to read information in a form that is accessible to them. Since the publication of The Standard Rules on the Equalization of Opportunities for Persons with Disabilities (SREOPD, 1993) and of the “UNESCO Public Library Manifesto” (1994), the awareness that information is a primary and basic right even for the disabled has grown considerably. Universities have to play a

key roles in building an “Inclusive Society”, serving all kinds of users including those with visual impairment (Bernardi, 2012). It is therefore imperative on university administrators to make information available in alternative formats like audio, Braille or large prints that can be easily accessed by the visually impaired.

Eskey & Chima, (2003) postulate that advancement in Information and Technology (ICTs) has undoubtedly contributed significantly to library service delivery for blind and physically challenged persons. In their words, the advancement in ICTs is an ever-expanding phenomenon precipitated by both the innovative spirit of the community and the advances of the technology. According to them, since libraries and librarians have a cardinal role in providing access to essential information to people to make them participate in the emerging information society, libraries have corporate responsibility to make information available to their user communities regardless of their “gender, age, race, political affiliation or disability”. In their view, such inclusive, non-discriminatory service “still remains the ideal rather than the norm as some people remain underserved in terms of access to information, and this disadvantaged group are the visually impaired”.

According to Bernardi (2012), in recent time “with new developments in ICT technologies, new applications have opened up new areas of reading, participation and other related activities for people with disabilities”. He adds that today, the visually impaired “have access to computer programmes, Internet and digital resources using Braille displays, screen magnifying monitors, screen magnification, scanning software with Optical Character Recognition (OCR), screen readers and speech synthesis”, the application of which have improved library services to the

visually impaired not only in the visual specialized libraries but also in the public and academic libraries. In the words of Bernardi (2012), “the lack of accessibility of Internet and digital resources has been recognized as a barrier for those who access information using Adaptive Technology and therefore a problem that has to be faced urgently”. The background of this study therefore considers the growing presence of library services for the visually impaired in every kind of library and also the new access opportunities to information that new developments in ICTs offer to these special readers.

1.2. Study Area

The study covers three public universities out of a total of nine in Ghana. The three Universities are; the University of Cape Coast, situated in Cape Coast; University of Education, Winneba, located in Winneba; and the University of Ghana, Legon in Accra. These were purposively selected because they are institutions which practice inclusive education.

University of Cape Coast

The University of Cape Coast was set up as University College in October, 1962 as a result of a recommendation of an international commission appointed by the Ghana Government in December, 1960 to advise on the future of University education in the country and the possibility of establishing a third University at Cape Coast. The College was formally inaugurated on December 15, 1962 and placed in a special relationship with the University of Ghana.

In 1970, the College Council recommended to the government the upgrading of the College to full university status with the right to award its own degrees. As a result of this and in consequence of a recommendation to the same effect made shortly afterwards by the University Visiting Committee appointed by the Government in the preceding year legislation, The University of Cape Coast Act, 1971(Act 390) was promulgated for granting full university status to the College with effect from October 1, 1971. This was later re-enforced with the University of Cape Coast Law, 1992 (PNDC Law 278) (UCC, 2015).

Currently, the University has restructured its degree programmes by separating the professional education courses of study from the main degree courses, with the view for flexibility in the selection of programmes to meet specific needs of students, including the visually impaired without deviating from its core mission of turning out highly qualified manpower in education. Against this commitment, the university admits not less than 40% students to pursue Bachelor of Education programmes at the Faculty of Education, who come out as qualified professional teachers. The rest are admitted to read non-educational programmes of studies in the other Faculties (UCC, 2015).

The University is organised into five (5) Colleges headed by Provosts namely: College of Distance Education (CoDE), College of Education Studies, College of Agriculture and Natural Sciences (CANS), College of Health and Allied Sciences (CoHAS) and College of Humanities & Legal Studies. From an initial student enrolment of 155 in 1963, the University of Cape Coast, in 2015, had a total student population of 59,834. The breakdown is as follows: 17,034, Regular Students, 2,800

Sandwich Students and 40,000 Distance Learning Students. The total student population was made up of 62.8% (37,576) males and 37.2% (22,258) females (UCC, 2015).

The University of Cape Coast Library was set up in a large room in 1962 with 650 books from the Kumasi College of Arts and Education to form the nucleus of the library in the University College. The collections from Kumasi were mainly books in the Arts and Humanities which were found suitable, but those in the sciences were found unsuitable for undergraduate work.

Mr. E.K. Koranteng was appointed as a Sub-Librarian and charged with the task of starting the library from scratch. He was by his appointment the first Ghanaian Librarian to start a University Library without expatriate staff support.

In 1963, the library was relocated to a new building at the old site with three additional staff members to house about 20,000 volumes of books. As the student intake grew in 1963/64 academic year, the new library block could not contain the growing capacity of students and it became absolutely necessary for the University College authorities to begin work on a pre-fabricated building, envisaged as a temporary structure to house about 50,000 volumes of books for a period of few years. The Science books were removed from the Main Library to the Science Faculty Library at the top floor of the Science Faculty building in the 1968/69 academic year (Kwarteng, Boadi-Siaw & Dwarko, 2012).

It was after 1971 that a permanent Central University Library building was started to improve upon the library system at the University College and this took more than twenty years to complete. In addition to the Central University Library are Faculty, School and Departmental libraries as well as the traditional halls of residence.

The total number of visually impaired students in 2015 stood at 30 representing 0.05% of total student population. From a population of 30 visually impaired students, 70% were males, while 30% were females. Table 1.1 below shows the number of visually impaired students, as at 2015, at each level.

Table 1.1 Visually Impaired Students at University of Cape Coast.

Level	Male	Female	Total
100	2	1	3
200	8	2	10
300	5	3	8
400	5	3	8
600	1	0	1
TOTAL	21	9	30

The University of Education, Winneba

The University was established in 1992, initially as a University College under PNDC Law 322, with some diploma awarding colleges, including the Advanced Teacher Training College, the Specialist Training College and the National Academy of Music all located at Winneba and the School of Languages at Ajumako all in the Central Region of Ghana. It also had the College of Special Education at Akwapim-

Mampong; the Advanced Technical Training College at Kumasi; and the St. Andrews Agricultural Training College, Mampong-Ashanti.

The University now has four satellite campuses comprising Winneba, Kumasi, Mampong and Ajumako. In accordance with the name of the university the Winneba Campus constitutes the main campus of the University which has three sub-campuses; the North, South and Central campuses. The central Administration is currently located at the North Campus.

The University is charged with the core mandate to producing professional teachers in response to national vision of education which aims “at redirecting Ghana’s effort along the path of rapid economic and social development”. In 2015, there were a total of 60 visually impaired students at the Winneba campus where programmes of studies are offered for the visually impaired. The number of male students was 46 representing 76.7% while 14 were females representing 23.3% of the visually impaired student population. Table 1.2 below shows the number and gender distribution of visually impaired students at the Winneba campus of the University.

Table 1.2 Visually Impaired Students at UEW

Level	Male	Female	Total
100	22	9	31
200	11	2	13
300	6	1	7
400	7	2	9
TOTAL	46	14	60

The University of Ghana, Legon

The University of Ghana (UG), the premier university and the largest university in Ghana was founded as the University College of the Gold Coast by Ordinance on August 11, 1948 for the purpose of providing and promoting university education, learning and research. Its first Principal was the late Mr. David Mowbray Balme, after whom the University of Ghana's Library was named.

The Balme library is part of the University of Ghana's library system comprising of the various libraries in Schools, Institutes, Faculties, Departments and Halls of Residence of the University. Facilities at the Balme library include Research Commons, Knowledge Commons, a Digitisation Unit and a 24 hour Reading Room. There are six departments in the library and one special library for the visually and hearing impaired known as the Braille Library. (UG, 2015)

In the 1960/61 academic year, the College Council made a request to the Government of Ghana for legislation to constitute the University College into a University with the power to award its own degrees. The Government appointed an international commission to examine the problem. On the recommendations of the commission, the University of Ghana was set up by an Act of Parliament on October 1, 1961 (Act 79). (UG, 2015)

University of Ghana is run on a collegiate system and comprises the following colleges: College of Basic and Applied Sciences, College of Education, College of Health Sciences, and College of Humanities. In addition, the University has several research institutions and centres for learning and research, including Noguchi

Memorial Institute for Medical Research, Centre for Tropical, Clinical Pharmacology and Therapeutics, Regional Institute for Population Studies, Institute for Environmental and Sanitation Studies and the Institute for Statistical, Social and Economic Research.

The student population is over 38,000 made up of students enrolled on regular programmes, sandwich programmes, and distance education as well as students from affiliate institutions. The population of visually impaired students in University of Ghana in 2015 was 26, comprising 21 males and 5 females. Table 1.3 below shows the number and gender distribution of visually impaired students at the University of Ghana in 2015.

Table 1.3 Visually Impaired Students at the University of Ghana.

Level	Male	Female	Total
100	4	2	6
200	8	1	9
300	6	2	8
400	3	0	3
TOTAL	21	5	26

For the same academic year, University of Ghana had a student population of 38,000 out of which 29 were visually impaired. Out of the 26 visually impaired students 21 representing 80.8% were males while 5 students representing 19.2% were females.

Table 1.4 **Summary of Visually Impaired Students in the three Public Universities**

UNIVERSITIES			
UCC	UEW	UG	Total
30	60	26	116

As shown in Table 1.4 above, a total of 116 students constitute visually impaired students in the three public universities under study for the 2015/2016 academic year. University of Education, Winneba had the highest number of 60 representing 50.4% with University of Cape Coast having 30 visually impaired students representing 25.2% while University of Ghana had the least number of visually impaired students of 29 constituting 24.4% of the total number.

1.3 Statement of the problem

A university, public or private, as a center of higher learning, has a core mandate for teaching, learning and research. A university may not have halls of residence or hostels and cafeteria of its own to provide services for its students, however, for it to deliver effectively on its corporate mandate, it must have a well established library to provide quality information to students, staff and faculty members including the physically challenged. In Ghana, having a well resourced library is a prerequisite for a university's accreditation. The library is therefore an essential part of a university set up; indeed it is viewed by many as the nerve centre of a university as far as academic work is concerned.

Since the enactment of the Ghana Disability Act, 2006 (ACT 715), there have been several calls to make public facilities, including university libraries, accessible to all people with disability. The law enjoins managers of all public facilities to make them disability compliant by the end of 2016. To make library services provided by these three public universities in Ghana under study accessible to academics; including visually impaired students, throws up some challenges for public universities in Ghana.

According to Kharamin & Siamian (2011), the real challenge in the information age has not got to do with “producing or storing information”, but “getting people to use information appropriately”. IFLA Guidelines for Development of The Public Library Service (2001) state that “the development of collections should be based on the principle of access for all including access to formats appropriate to specific client groups”. According to Michell (1996), “the ideal library service is one where each individual, regardless of the degree of his or her visual impairment, has access to the materials and information at the time they are required, in a format that can be used, in the quantities that are needed, and where the needs of the user are understood by the staff. Blind people and those visually impaired traditionally read Braille, Tape Audio-Books and large print books produced and provided by specialized libraries for the blind”.

With the advent of ICT, visually impaired students are challenged to learn how to use a wide variety of resources, including print materials in the library and on-line resources such as the internet and periodical databases, in the same manner as their sighted peers. In order for visually impaired students to use materials that are

available only in print, they would need access to an optical scanner and optical character recognition programme such as omri page pro, open book or a close-circuit television (CCTV) for low vision students.

Rowland (2008) has noted that “the social, political and economic environment of the visually impaired also constitutes barriers to their information seeking and that access to information and communication technology is a major determinant of how information rich or information poor a university is”. He asserts that “many developing countries are disadvantaged in terms of access to information infrastructure and this greatly limits their capacity to meet the information needs of the visually impaired and that the visually impaired, like other people with disability, suffer social discrimination and cultural bias that negatively impact on their information seeking behavior”. He is also of the view that people who are “physically challenged are generally viewed as abnormal and are often excluded from the mainstream of public services including library and information”. On his part, Friend (2009) asserts that “less than 5 percent of the information materials available to sighted library users are accessible to the visually impaired”.

According to Alemna (1997), blind and visually impaired in Ghana have long been deprived of most of the printed material accessible to sighted people. This makes the visually impaired dependent on sighted people to read to them. Consequently, the establishment of library services to blind and visually impaired people through the academic libraries would be a needed step forward in their advancement and integration into society as a whole.

It is against this background of challenges faced by the visually impaired students making them suffer social discrimination in accessing library services that the researcher set out to examine the kinds of library services available to visually impaired students in the three public university libraries under study; whether they are adequate, the available infrastructure for the visually impaired students and the challenges the three public university libraries are confronted with in the provision of library services to the visually impaired and has come out with some recommendations to address them.

1.4 Purpose of the study

The purpose of this study was to examine the provision of library services for the visually impaired in the public universities in Ghana.

1.5 Objectives

The specific objectives of this study are to:

1. Examine the kinds of library services available to visually impaired students in public universities.
2. Evaluate the adequacy of the provision of library services for the visually impaired.
3. Analyse the preferred formats visually impaired students want their library resources to be in.
4. Determine the available infrastructure in the three public university libraries for visually impaired students.

5. Examine the challenges libraries face in responding to the needs of visually impaired students.
6. Make recommendations based on the findings of the study.

1.6 Research Questions

In order to achieve the objectives of the study the following research questions were formulated to guide the study.

1. What kinds of library services are available for visually impaired students in the public universities of Ghana?
2. How adequate are the services being provided by the public university libraries for the visually impaired?
3. In what format in terms of materials, services and equipment do visually impaired students prefer the public university libraries to provide?
4. What are the existing infrastructures in the public university libraries for visually impaired students?
5. What are the challenges public university libraries faces in rendering library services for the visually impaired students?

1.7 Significance of the study

The result of the research would contribute to formulation of policies by the universities' authorities and inclusive institutions concerning provision of library services for the visually impaired. Furthermore, it will serve as a valuable source of reference to educationists and librarians and also help address the challenges visually impaired students go through in their quest to access information. Additionally, it

would inform the government and appropriate institutions on how to make adequate provision of funds for public universities so as to help improve on the quality of library services to students with visual impairment. The result of the study will also be of benefit to researchers, the Ministry of Education, teacher associations, lecturers and students in their pursuit of developing literature on library services for the visually impaired; and, in so doing, adding to academic knowledge.

1.8 Scope of the study

The study was confined to visually impaired students and library services offered to them in public tertiary institutions in Ghana. The study was conducted in three of the nine public universities in Ghana, namely the University of Cape Coast (UCC), University of Education, Winneba, (UEW) and University of Ghana, Legon (UG).

The decision to choose these three universities was based on the fact that out of the nine public universities in Ghana, it is only the above named institutions that were practicing inclusive education. Therefore, the UCC Library, the Osagyefo Library at UEW and the Balme Library at Legon were the focus of the study.

1.9 Theoretical Framework

This section looks at the theory on which this research was situated.

A theoretical framework is a foundation for the parameters, or boundaries of a study. Once these themes are established, researchers can seek answers to the topical questions they have developed on broad subjects. With a framework, they can resist getting off track by digging into information that has nothing to do with their topic.

Often researchers are curious about broad subjects, but with a theoretical framework they can stay tightly within the theme or topic. A theoretical framework structures the sections of the study that need to be covered. For the purpose of this study, the Social Model of Disability (SMD) was used.

The model rests on the recognition that people are disabled by social barriers. “If no barriers exist, then a person with impairment is not prevented from using services” (Robertson, 2012). The model is based on the preposition that, “it is society and its instructions that are oppressive, discriminatory and disabling and that attention therefore, needs to be focused on the removal of obstacles to the participation of disabled people in the life of society, and in changing institutions, regulations and attitudes, that create and maintain exclusion” (Campbell & Oliver, 1996). The barriers generally fall into three categories:

- The environment – include inaccessible buildings and services
- People’s attitudes – stereotyping, discrimination and prejudice
- Organizations – inflexible policies, practices and procedures.

The Social Model of Disability (SMD) postulates that “disability is caused by the way society is organised, rather than by a person’s impairment or difference”. It looks at ways of removing barriers that restrict life choices or disabled people and goes further to say that “when barriers are removed, disabled people can be independently equal in society, with choice control over their own lives”.

The Social Model of Disability however, does not deny the problem of disability but locates it squarely within society. It postulates that “it is not individual limitations, of

whatever kind, which are the cause of the problem but society's failure to provide appropriate services and adequately ensure the needs of disabled people are fully taken into account in its social organization". (Oliver, 1990)

Using the SMD helps identify solutions to the barriers disabled people experience. It also encourages the removal of these barriers within society, or the reduction of their effects, rather than trying to fix an individual's impairment or health condition. This is a preferred model for disabled people and encourages society to be more inclusive.

1.10 Definition of Terms

- Visually impaired, as used in this study, refers to persons whose visions are so impaired that they use Braille as a medium of reading and writing. They include the blind and the partially sighted.
- Braille is a system of writing letters, numbers and other language symbols with a combination of six raised dots. A person with visual impairment reads the dots with his her fingertips.
- Resource Persons are persons specially trained to promote and facilitate the education of the visually impaired in the inclusive institutions by catering for their special needs.
- Inclusive Institutions refer to the institutions that educate the visually impaired alongside their sighted peers or counterparts.

1.11 Organisation of the Study

This study was organized under six main chapters.

Chapter one looked at the introduction which highlights the background of the study, the statement of the problem and the purpose of the study. The research questions, the significance of the study are considered under this chapter. The chapter includes the scope and theoretical framework of the study and finally concludes with the operational definition of terms and organisation of the study.

Chapter two discusses literature related to the study. Literature review was specifically organised under the policy and legal framework on disability issues, concept of inclusive education, the visually impaired, role of the resource person, general library services and library services for the visually impaired.

The third chapter describes the methodology used in the study. The research design, the population, sample and sampling procedure, research instrument, data collection, data analysis procedures as well as ethical issues are treated in this chapter.

Chapter four is dedicated to the data analysis and presentation of findings.

Chapter five is devoted to discussion of findings.

Finally, chapter six comprises summary of findings, conclusion and recommendations.

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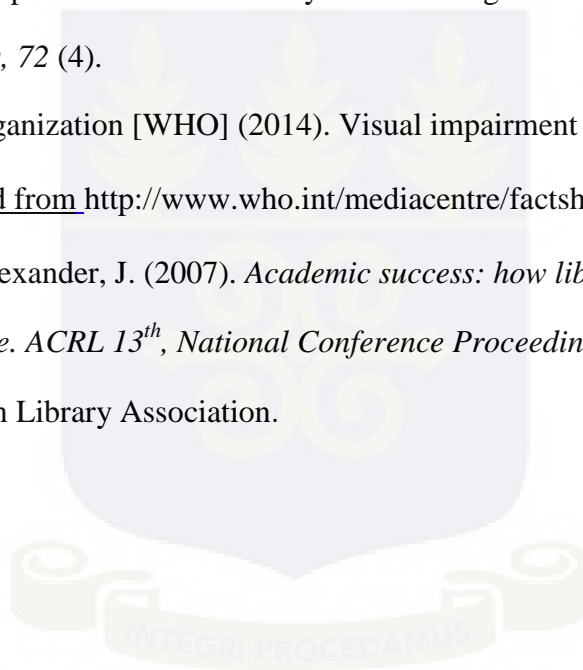
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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Review of the literature involves locating, reading, and evaluating reports of research as well as reports of casual observations and opinions that are related to the individual's planned research project. Literature review thus provides the researcher a quick and relatively easy means of obtaining a good overall understanding of the field the researcher intends to study.

One of the essential preliminary tasks needed to understand a research study, according to Kumar (2005), is to go through the existing literature in order to acquaint the researcher with the available body of knowledge in the area he or she is researching.

The purpose of the literature review, in the words of Colin Fisher (2007), is to take a broader perspective, and to remove the need to discover knowledge that has already been reported. It therefore helps to build upon the work that has already been done in the field the researcher is researching. It helps also to provide the researcher a great deal of insight into the methods, measures, subjects and approaches used by other research workers and can thus lead to significant improvement. This is precisely what this chapter seeks to do.

This chapter undertakes a review of existing relevant literature and it is organized under the following sub-headings: policies and legal framework on disability issues, visual impairment, the role of resource persons for the visually impaired and the

concept of inclusive education. In addition, traditional library services and library services for the visually impaired are treated under this chapter as well.

2.2 The Visually Impaired

Visual impairments seem to evoke more awkwardness than most other disabilities. People are uncomfortably aware of blindness because of its visibility. Often time people do not realize that a person has hearing impairment until we actually talk to that person. Another possible reason for being self-conscious around people who are visually impaired is the role that eyes play in social interaction. Poets, play writers and song writers have long recognized how emotionally expressive the eyes can be for the sighted. Undeniably, how uncomfortable it can be to talk with someone who does not make eye contact with you. Most people always prefer to talk “face-to-face” on an important matter rather than over the telephone, with the simple reason that, to a very large extent, people seem to rely a great deal on expressiveness of people’s eyes to judge how they are responding to what they are saying.

According to Giridher, Dandona, Prasad, Kovai & Dandona (2002), research has shown that most people have a special fear of blindness. It is the third most feared condition, with only cancer and AIDS outranking it. One reason people may be so frightened of becoming blind is that our eyes seem as vulnerable as they seem dangerously exposed. Another reason people fear loss of vision is that the sense of sight is linked so closely with the traditional concept of beauty. Great pleasure is derived from our sight and as people; our feelings about others are often based largely on physical appearances that we visually perceive. People’s apprehension about visual impairment can be attributed to our lack of experience in interacting with

individuals with visual impairment. It is not until we talk to them or read about their appreciation for sound, smells, and touch that it is realized that sight is not the only sense that enables us to enjoy beauty or interact socially with other people.

Mercer, Mercer & Pullen (2010) observed that, like anyone with disability, the person who is visually impaired wants to be treated like anyone else. Most people who are visually impaired do not seek pity or unnecessary help; in fact they can be fiercely protective of their independence. Hunt and Marshall (2002) explain that visual impairment is an umbrella term that includes all levels of vision loss, from total blindness to uncorrectable visual limitation. They state that a number of terms are used interchangeably to describe individuals whose visions are impaired, including visually impaired, visually handicapped, visually disabled, blind, partially sighted and low vision. Finkelstein (1989) cited by Koeswiryono (2013) also asserts that learners with visual impairment include those learners whose sights are limited in any way to the extent that special services are required. Many of these persons have sight that is useful for some purposes. Others are blind, or have profound visual impairment that prohibits the use of vision as an educational tool.

2.2.1 Types of Visual Impairment

A person is considered legally blind when his or her visual acuity or sharpness of vision measures 20/200 or worse in the better eye with correction, or when he or she has visual field not greater than 20 degrees. The authors however, caution that if vision can be corrected through glass or contact lenses to 20/200 or better, the person is not considered legally blind. They again explain that the term legal blindness describes visual impairments that qualify a person for a variety of legal and social

services. This definition is used to determine eligibility for governmental funding, tax deduction, rehabilitation and other services. Hunt and Marshal (2002) are however, of the view that though the legal definition is widely used, it is somewhat misleading, since many legally blind individuals have a good deal of useful vision.

Educational definitions are generally based on the way a student uses his or her vision in an educational setting- individuals who use Braille may be considered blind, and those who read large print may be designated “low vision” (Augusto, 2009). Augusto contends that students who are totally blind are able only to distinguish the presence or absence of light; they may learn best through tactile or auditory senses. Individuals with low vision on the other hand are able to see objects at near distances, sometimes under modified conditions, or may have limited use of vision under average circumstances.

In the view of Hunt and Marshall (2002), it is important to distinguish between legal definitions and educational definitions. The term legal blindness describes visual impairments that qualify a person for a variety of legal and social services. According to them, this definition is used to determine eligibility for governmental funding, tax deduction, rehabilitation, and other services. Hunt and Marshall (2002) assert that educational definitions are generally based on the ways a student uses his or her vision in an educational setting. Educational definitions rely less on visual acuity measurement and more on functional vision (how well a student uses his or her remaining vision). The real test of how well a student sees is how he or she accomplishes daily activities using his or her sight as well as other senses.

More and more, levels of visual impairment are being defined in education terms. According to Kirk, Gallagher, Anastasiow and Coleman (2006), educational classifications are described as moderate, severe, and profound. These classifications are not based on test of visual acuity but on the special educational adaptations that are necessary to help these individuals. A moderate visual disability can be almost entirely corrected with the help of visual aids, either in the regular classroom or a resource room. A severe visual disability is helped only somewhat with visual aids; still, the individual can use vision as a channel for learning. This classification is equivalent to the definition of an individual with low vision. An individual with a profound visual disability cannot use vision as an educational tool. For this individual, touch and hearing are the predominant learning channels. This classification is at the level of legal blindness.

Contribution to the discussion, Salent (1990) also identifies three types of individuals who are visually impaired; the blind, the low vision and the visually limited. Individuals who are blind have no vision or have limited light perceptions. A person who is blind is totally without sight or has so little vision that he/she learns primarily through the non visual senses. Most individuals who are blind use their sense of touch to read Braille. Abosi and Ozoji (1985) cited by Munyi (2012) contend that a person is said to be blind if he/she cannot read and write print after all optical corrective measures have been taken. He/ She consequently uses Braille as a medium of reading and writing.

Individuals who have low vision can see objects that are close by but have difficulty in seeing things or object at a distance. According to Barraga (2006), an individual

with low vision is the one who has some amount of vision left and he is able to learn through the visual channel. The author defines such individuals as those who have limitations in distance vision but are able to see objects and materials in the near environment within a few centimeters or at most a meter away. Individuals who are visually limited need aids or special lighting system to see under normal condition.

Visual impairments have varied effect on learners' personal characteristics. Leonhardt (1990), stresses that the mannerisms of learners who are visually impaired include stereotypic behaviours, repetitive behaviours with no apparent effect on the environment and "blindism". Behaviours apparent in learners who are visually impaired cover a broad range of verbal and motor behavior. Leonhardt explains that stereotypic behaviours occur more frequently in conditions under which the visually impaired have little or no control, in demanding situations, like situations that refer to the visual world, or in situations of loneliness or isolation.

Barrage (1986) proposes the following educationally relevant classification of visual impairment.

Profound: Most gross visual tasks are very difficult; vision not used for detail tasks.

Severe: Visual tasks demand considerable time and energy; performance less accurate than that of learners with normal vision even with visual aids and other modifications.

Moderate: Tasks performed with the use of aids and lighting; performance comparable to learners with normal vision.

2.2.2 Causes of Visual Impairment

Visual impairment may be the consequences of various factors. Barraga (1986) claims that the most frequent causes are prenatal influences and heredity, injuries poisoning,

tumors, infectious diseases such as rubella and German measles and general systematic disorders such as central nervous system disorders.

In its contribution, UNESCO (1995) indentifies the major causes of visual impairment as follows:

- a. War, violence and accident;
- b. Malnutrition including iodine and vitamin A deficiency;
- c. Infectious diseases such as measles;
- d. Non-infectious diseases arising from poverty, bad sanitation and harmful traditional practices;
- e. Congenital conditions often caused by poor birthing methods and malnutrition in mother.

The causes of visual impairment in Ghana are not different from those identified by UNESCO. According to Ntim-Amponsah (2012), “most causes of childhood blindness in Ghana are avoidable and 40% of students in the school for the blind in Ghana have functional residual vision due to corneal blindness or cataract”. She further opined that rubella, syphilis, AIDS and gonorrhoea as some of the infectious diseases that affect the unborn child. The author adds that general diseases affecting vision in Ghana include measles, meningitis, onchocerciasis and brain tumours. She also identifies accident caused by explosions, firearms, substance in the eye, excessive alcoholism, excessive use of tobacco and domestic, roads and industrial accidents as other causes of visual impairment in Ghana. However, they are quick to add that with carefulness, proper sanitation and nutrition majority of the causes of visual impairment in Ghana can be avoided or prevented.

In the views of Hunt and Marshall (2002), most visual impairments in students are congenital conditions which may be caused by heredity, maternal or fetal infection, or damage during fetal development or shortly after birth. Hereditary conditions include albinism, some forms of glaucoma, and retinitis pimentos. Other conditions, such as cataracts and under development or absence of parts of the eye structure, may be caused by damage during fetal development. Hunt and Marshall Advice that it is important for classroom teachers to understand the eye conditions of their students, since the specific condition may affect what we expect from the student's visual functioning in the classroom.

According to Landa-Viglard (2015), learners with visual impairment are assessed in four general areas; medical, psychological, social and educational. The assessment to be used for educational placement or instructional decision purposes includes the evaluation of functional vision; intelligence and cognitive development; psychomotor skills; and academic achievement. Scholl puts forward that the assessment of academic achievement should include an evaluation of concept development, Braille and print reading, listening skills, social interaction and leisure skills, and functional living skills including daily living skills, orientation and mobility, and community and vocational skills.

According to Best (1995) lack of sight can severely limit a person's experiences because primary means of obtaining information (right) from the environment is not available. It is contended that because as much as 85 or 95 percent of what we learn comes through our vision, it is often presumed that students with visual impairments are less capable or have less potential than those who see (Finkelstein, 1989) cited by

Koeswiryono (2013). He however, is of the opinion that vision is only one source of information, and students with visual impairment are as varied as any other individual.

Willings (2015) citing Lowenfeld (1993) delineated three general limitations imposed by visual impairment; range and variety of experiences, ability to move about and control of the environment. Such limitations restrict the total experience of the visually impaired and decrease the range of available learning experiences.

2.3 Policies and Legal Framework on Disability Issues

Persons with disabilities make up a very significant proportion of the worlds' population. Almost everyone will be personally affected by disability during their lifetimes whether because they have or will develop a disability, or through the experiences of loved one. Discrimination against persons with disability exists throughout the world. However, it must be acknowledged that the extent of discrimination differs from society to society.

Discrimination against persons with disabilities takes various forms, ranging from invidious discrimination, such as the denial of educational opportunities, to more subtle forms of discrimination, such as segregation and isolation because of the imposition of physical and social barriers. Persons with disabilities often are excluded from the mainstream of the society and denied their human rights. Effects of disability-based discrimination have been particularly severe in fields such as education, employment, housing, transport, cultural life and access to public places and services. This may result from distinction, exclusion, restriction or preference, or

denial of reasonable accommodation on the basis of disablement, which effectively nullifies or impairs the recognition, enjoyment or exercise of the rights of persons with disabilities (United Nations, 2007). This according to the LCO (2009) is a reality to which law and policy-makers must respond. This section of the study therefore seeks to identify some local and international laws and policies that directly target persons with disabilities, as well as general laws and policies that may affect this group as part of the general Ghanaian population.

In Ghana, the 1992 Constitution of the Republic of Ghana is clear, under Article 17 (1) that, all persons (abled or disabled) shall be equal before the law. Articles 17(2) also states that “a person shall not be discriminated against on the grounds of gender, race, colour, ethnic origin, religion, creed or social or economic status”.

Clearly, the provision as quoted above affirms the fact that every human being regardless of his or her physical condition shall be recognized and treated as required by law. According to Azanduna (2010) a careful study of these articles and many other provisions of the 1992 Constitution reveal that the words “every person” and “all persons” run through the Constitution, which means that the Constitution strongly appalls marginalization of any person or category of persons. It is worth noting that Persons With Disabilities (PWDs) are not excluded from any of these provisions. Article 29 of the Constitution with its sub-sections (1-8) is devoted to the rights of disabled persons. Giving expression to promoting the rights of persons with disabilities to participate on the basis of equality in social life and development, the Parliament of Ghana on June, 2006 passed Persons with Disabilities Bill into law.

The purpose of the Disability Act, 2006 (Act 715) is to fight and protect the rights of people who are living with disability, to make sure that they enjoy their rights, as enshrined in the 1992 Constitution of Ghana. As part of action by parliament to ensure that the disabled, including the visually impaired are do not suffer exclusion from visiting or accessing services at public buildings it is now a government policy that all public buildings be designed to make them disabled friendly,

At the international level, is the UN Convention on the Rights of Persons with Disabilities (CRPD). It is an international human rights treaty of the United Nations. It seeks to promote, defend and reinforce the human rights of all persons with disabilities. The Convention and its Optional Protocol was adopted on 13 December 2006 at the United Nations Headquarters in New York, and was opened for signature on 30 March 2007. Since that time, the treaty has entered into the important processes of ratification, implementation and monitoring.

The Convention entered into force on 3 May, 2008 and as in January 2016, it had 160 signatories and 161 parties, including 160 states and the European Union. The Convention has served as a major catalyst in the global movement from viewing persons with disabilities as objects of charity, medical treatment and social protection towards viewing them as full and equal members of society, with human rights (Harpur, 2010). It is also the only UN human rights instrument with an explicit sustainable development dimension.

2.4 Resource Persons for the Visually Impaired

An obvious pre-requisite to successfully serving students with visual impairment in regular institutions is the provision of specific preparation for resource persons at the pre-service and in-service level. Cruickshank and Johnson (1975), state that the resource person is a professional who understands the characteristics and learning needs of the visually impaired. The resource person is also a specialist in the teaching techniques and resources available to assist such students and is informed about the laws which relate to their educational programmes.

Abang and Marshall (1997) supporting other authors cited already on the role of a resource person asserts that a resource person is a specialist who is available in the resource room to offer educational assistance to students who require help in the respective subjects. He adds that students register in the ordinary classes and only spend a portion of the day in the resource room with the resource person. He emphasizes that the students generally come at scheduled times to get their specific needs met by their resource persons in their area of difficulty.

Morsink (1984) stresses that; the resource person is the pivot around whom the success of mainstreaming programme revolves. He further explains that the competency of the resource person is probably a more significant variable in determining a good mainstreaming programme for the visually impaired. Special competencies and skills are needed to meet the needs of this group of students with disabilities.

Monsink (1984), further goes on to say that the preparation of resource persons should include a broad background in general education, professional education, and specialized professional education. He is, however, of the view that no pre-service programme of preparation can be considered complete. Therefore, all resource persons require a programme of continuing education that will enable them to keep abreast with current research findings and new development in the field.

It is important for the resource person to be highly competent and a personable individual (Lerner 1993). Lewis and Doorlag (1995) add that the resource person should have the time, materials and specific training to find effective ways to teach students with visual impairment. He should be a special education teacher with advanced training in the education of the visually impaired.

Taking us a step further into what actually constitutes the training of resource persons, Mercer, Mercer & Pullen (2010) have stressed that to perform adequately, the resource person must possess three particular kinds of ability. First, he must be able to work closely and harmoniously with other teachers and auxiliary staff. Second, he must be able to assess specific educational and behavioural problems and needs. Third, he must be able to design and implement individualized instruction for the students with visual impairment. They conclude that the most effective resource persons are those have these basic skills.

Usually resource persons of the visually impaired are thought of in conjunction with specialized equipment and materials, such as Braille machines, computers and printers, cane, tape recorders, and magnifying devices. Equipment and materials do

play an important role in the education of the visually impaired; consequently effective resource persons must know a great deal more than how to use these special devices. Since they are frequently called on to teach skills and concepts that most students acquire through vision, resource persons of the visually impaired must be knowledgeable, competent and creative. They must plan and carry out activities that will help their students gain as much information as possible through the non-visual senses and by participating in active, practical experiences (Turnbull, Turnbull & Leal, 1995).

In his contribution to the qualities and qualifications of the resource persons, Rottman (1985) says that the use of the non-visual senses to acquire knowledge and skills often demands extra time, extra concentration, extra exertion and extra tension. He therefore advises resource persons to have these qualities or learn to have them to enhance their role.

2.4.1 The Roles of Resource Persons

Even though we talk of direct and indirect roles of resource persons, Gearheart and Weishahn (1992) cited by Gebereselassie (2000), claim that it is sometimes difficult to clearly draw a distinction between the two. They are of the opinion that a student with visual impairment must be deliberately treated more normally and less like an individual with disability in all possible classroom interactions. This may be a major challenge to the regular classroom teacher when planning the best possible programme for the visually impaired.

Gearheart and Weishahn (1992), have noted that direct role involves working directly with the visually impaired student on a one-to-one basis or in small groups. The extent to which the resource person works directly with the student will depend on the type of service to be provided. Dean (1996), claims that there are a number of “plus factors” that must be provided in addition to regular curricular. These “plus factors” are provided by the resource persons.

The resource person will provide the needed instruction in Braille reading and writing and the use of Braille machines, slate and stylus (Gearheart & Weishahn, 1992). The authors add that the resource persons’ role include instruction in the use of adapted or special equipment and aids. Specialized instruction in the use of equipment and aids such as tape recorders, tape players, and talking-book machines will be necessary for the visually impaired. However, instruction in the use of this equipment will be introduced as the need arises rather than systematically scheduled. In the opinion of Heward and Orlansky (1992), putting reading materials into Braille and putting reading materials into tape recorded form as well as putting Brailled materials into print are the crucial roles that resource persons play in mainstreaming institutions.

Shea and Bauer (1994), claim that Braille remains an extremely useful tool for learners who are visually impaired. The authors assign the following reasons for their claim: the visually impaired can make and read their own notes, giving them a private mode of communication; personal and household objects can be labeled and identifies and; Braille is concrete and can be renewed.

According to Willings (2015) student's need for adaptations to the environment depends on their visual impairment and any additional disabilities. It is therefore important that resource persons understand each student's visual diagnosis and the implications with regard to functional vision to make the appropriate adaptations in order to maximize the student's use of vision.

Gearheart and Weishahn (1992) however, value instruction in techniques of daily living as more important. They explain that to function effectively as a responsible and contributing member of society requires more than just being able to complete the required academic tasks such as reading and writing. They claim that often an individual with visual impairment does not know how to carry out all the activities of independent living such as personal grooming, house cleaning, cooking and serving food and home repair. These specific activities of daily living must be part of the school curriculum of the student with visual impairment.

Many resource persons assume responsibility for student counseling and for seeking appropriate professional counseling when needed. Resource persons are acquainted with the unique problems imposed by impaired vision and their relationship to adjustment and social emotional growth. They may also be in the best position to discuss personal problems, interest, and projected vocational plans (Gearheart & Weishahn, 1992).

The resource person provides the needs of the student with visual impairment who is in the mainstreaming institutions. Winzer (1989) mentions these needs as daily living skills, orientation and mobility training, communication skills, vocation and career

guiding and instruction in the use of special aids that provide means of reading, writing and moving about. Students with visual impairment are however prime candidates for mainstreaming programme as the curricular modification are not extensive.

2.5 Inclusive Education

The World Health Organization (WHO) estimates that there are 600 million people in the world with disabilities, 80% of whom live in low-income countries. In Ghana, the findings from the 2010 national census indicate that there are 737,743 persons living with disabilities. This is approximately 3.0% of the total population of the country. It is also estimated that 100,000 Ghanaian children aged 6-14 have a disability. More than 16,000 of these children are out of school (Census 2010). As defined by the International Classification of Functioning, Disability and Health (ICF) (WHO); disability is defined as “an umbrella term for impairment, activity limitations and participation restrictions”. It denotes “the negative aspects of the interaction between an individual (with a health condition) and the individual's contextual factors (environmental and personal factors)”. Whilst the term “disability” does not align or subscribe itself to one specific or one generic definition, it is clear among all these definitions that disability refers to “a physical or mental limitations”.

The United Nations upholds education as a fundamental human right for all children and the disabled is no exception. Persons with disabilities are agents of their own destiny and equal citizens of any nation. They have the same rights and responsibilities and should enjoy equal access to education like any other citizen. However, in a majority of countries, there is a dramatic difference in the educational

opportunities provided for disabled children and those provided for non-disabled children (Peters, 2004). According to Lindqvist (1999) cited in Reiser (2012), the global goal of Education for All can never be realized if there is not a complete change in the situation. For a decade, children with disabilities have been educated in separate classes or in separate schools. Henninger and Gupta (2014), are of the view that “ for children with disabilities to be fully integrated into and successful in school and life, they need opportunities to; develop positive social-emotional skills, acquire and use knowledge and skills including early language/communication and early literacy skills and use appropriate behaviors to meet their own needs”.

According UNESCO (2009) over the past several decades many educators got used to the idea that special education meant separate education. However recent studies have shown that when children are educated together, positive academic and social outcomes occur for all the children involved. Therefore, to realize the full potential of both “able” and “disable” students, there is the need for inclusive education. Inclusive education happens when children with and without disabilities participate and learn together in the same classes. Studies by Cameron and Valentine (2001) and Ainscow (2006) have shown that when children with disabilities attend classes alongside peers who do not have disabilities, positive outcomes result. However it must be acknowledged that simply placing children with and without disabilities together does not produce positive outcomes. Inclusive education occurs when there is ongoing advocacy, planning, support and commitment (UNESCO, 2009). Peters (2004) posits that the fundamental principle of the inclusive school is that “all children should learn together, wherever possible, regardless of any difficulties or differences they may have and that inclusive schools must recognise and respond to the diverse needs of

their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organisational arrangements, teaching strategies, resource use and partnerships with their communities”. Peters 2004 concludes that inclusive education is based on the simple idea that every child and family is valued equally and deserves the same opportunities and experiences. Inclusive education is about children with disabilities; whether the disability is mild or severe, hidden or obvious participating in everyday activities, just like they would if their disability were not present.

2.5.1 Benefits to Inclusive Education

The right of every child in the world to primary education lies at the heart of many international conventions and treaties. Prominent among these are the Millennium Development Goals (MDGs) and the now Sustainable Development Goals. However, it was in September 2010 when disability was officially acknowledged with regard to any international developmental agenda (United Nations, 2011). In most countries, attending the local or basic school is not just the best, most equitable option for disabled children; it is the only option because most parents of disabled children cannot afford to pay the kind of school fees charged by special schools for the disabled. The reality is that often there simply are no appropriate or affordable special schools or classes for children with disabilities.

Arguably getting every school inclusive is the best way to reach and teach all girls and boys, disabled or not. Inclusive education represents the belief or philosophy that the disabled be integrated into regular education classroom whether or not they meet traditional curriculum standard. Research conducted by Berg (2004) has shown that

inclusive education is one topic in special education that has created more controversy among educators, researchers as well as parents. According to him, this is because opponents of inclusive education maintain that this would affect the academic development of able students. However, the research points to the contrary.

Various studies have also lent support to the position held by Berg (2004). The studies have shown that inclusive education when properly implemented can have many significant advantages for all students as well as teachers involved in the process. These studies also dispel the notion that “normal” or “able” students “lose out” when students with special needs are included in regular classrooms. On the contrary, the researches show that all students do better both academically and socially when inclusive policies and teaching practices are followed. According to York, Vandercook, MacDonald, Heise-Neff, and Caughey (1992) placement in inclusive classrooms does not interfere with the academic performance of students without disabilities with respect to the amount of allocated time and engaged instructional time, the rate of interruption to planned activities and students’ achievement on test scores and report card grades. Again studies by Cole, et al. (2004) showed that students without disabilities made significantly greater progress in reading and mathematics when served in inclusive settings. This affirms studies by Cushing and Kennedy (1997) who indicated that students who provided peer supports for students with disabilities in general education classrooms demonstrated positive academic outcomes, such as increased academic achievement, assignment completion, and classroom participation.

Further research studies by Dessemontet, Bless, and Morin (2012) showed that students with intellectual disabilities that were fully included in general education classrooms made more progress in literacy skills when compared to students served in special schools. The National Centre for Education Restructuring and Inclusion (1995) has identified that students with disabilities in inclusive classrooms show academic gains in a number of areas, including improved performance on standardised test, mastery of educational goals, grades, on-task behavior and motivation to learn.

2.5.2 Challenges to Inclusive Education

In an increasing number of early childhood programmes around the globe, teachers, children, and parents are discovering the benefits of educating young children with special needs together with their same-age peers. Since learning is so important in the early years, this is the best time for children to begin to respect all people's differences and the contributions each individual makes. The key to creating a successful inclusive programmes is educating ourselves and others about how to ensure every student in the classroom has the chance to reach his or her fullest potential (Setiono, 2008). Children with disabilities are, first and foremost, children, and then children who may need support or adaptations for learning. Traditionally, children with special needs were pulled out of regular classrooms and grouped together as if all their needs were alike.

In 2006, the Persons with Disabilities Act (Act 715) was passed. This Act established equal rights for people with disabilities in employment, state and local public services, and public accommodations including education. Act 715 has helped; more and more,

educators to recognize that developmentally appropriate classrooms are places where all children can and should learn together. While there have been significant policy initiatives and legislations to support inclusive education, there are implementation difficulties of achieving these broad objectives. Some of the difficulties as identified by Yekple and Avoka (2006) included the identification and assessment practices in schools to determine the number of children with special educational needs, as well as readiness of regular schools to open-up to meet the diversity of pupils' needs. According to Onyango (2014) educators' strong knowledge of child development helps them to successfully teach young children with all talents, interests, and abilities and that in any effective inclusive program, teachers adapt activities to include all students, even though their individual goals may be different.

Gwala (2006) is of the view that inclusive education is concerned with removing all barriers to learning, and with the participation of all learners vulnerable to exclusion and marginalization. It is a strategic approach designed to facilitate learning success for all children. It addresses the common goals of decreasing and overcoming all exclusion from the human right to education, at least at the elementary level, and enhancing access, participation and learning success in quality basic education for all. For inclusive education to reap its full benefits there is the need for appropriate teacher training. Studies by Gwala (2006) revealed that educators do not show an understanding of inclusive education and are uncertain of their roles and that educators' lack of knowledge, little or no experience, uncertainty about roles, inadequate training in teaching learners with barriers in learning and development result in a high percentage of educators holding negative attitudes towards inclusion of learners with barriers in learning into regular classrooms. Due to the lack of

training on the part of teachers it is asserted that learners in special education receive less direct instruction, more work and fewer minutes of reading than other students because they move to and from special education resource rooms (Kaufinan and Chick, 2006). Bothma et al (2000) are of the view that teachers who have had training in special education have a more positive attitude towards learners who differ from or have needs that are more special than those of average learners. Are such any successful inclusion program depends on the comprehensive pre-service and in-service teacher education.

Another most cited barrier to effective inclusion is negative attitude expressed by educators and parents. Bender and Scott (1995) posited that principals have an important role to play in creating an attitude of acceptance as a result influence the attitude of all in the school community towards inclusion. Bothma et al (2000) identified that most teachers do not have a clear understanding of the demands of inclusive education. They further asserted that most teachers hold negative attitudes towards inclusive education because they feel that they are not obliged to implement the policies of inclusion. Teachers with a negative attitude toward inclusive education may lack confidence in their ability to teach learners with barriers to learning, fear failure and become more concerned about the needs of regular learners in their classes (Bothma et al, 2000). However, studies by Prinsloo (2001) revealed that teachers' attitude towards inclusive education is influenced by the availability and provision of sufficient resources. They further posited that where the resources are inadequate or has shrunk teachers' attitudes have become more negative. Engelbrecht et al, (2001) cited by Gwala (2006) maintain that stress levels of teachers are dependent upon their perceived ability to cope with inclusion of learners with barriers to learning in regular

classrooms. The teachers' perception of potential stressors in the work environment and the role of coping skills have to be addressed and appraised to ensure the successful implementation of inclusive education in schools and classrooms.

2.5.3 Inclusive Education Policies in Ghana

In Ghana, inclusive education began as far back as 1951 through the Accelerated Educational Plan and the 1961 Educational Act for free education which resulted in increases in basic enrolment (Gadagbui, 2008). The 1992 Constitution of the Republic of Ghana, the Ghana shared Growth and Development Agenda and the Education Strategic Plan (2010-2020), the Disability Act and the Education Act, and in the international agreements that Ghana is a signatory to treaties such as “Education for All”, and in the 2020 plan, among other documents, promote inclusive education. It is based on the belief that all children can learn and have a right to education. However, all these educational measures did not provide what it takes to run an effective inclusive education. Rather, access to special schools was possible for some and those integrated had no equal opportunity (Gadagbui, 2008).

This led to the drafting of Ghana’s Inclusive Education Policy in 2013 by a group of educators and policy makers, with the support of the United Nations International Children’s Emergency Fund (UNICEF). It is the result of a series of consultations with Ministries, the Ghana Education Service, the Girls Education Unit and the Early Childhood Education Unit of the Basic Education Division. Other contributors include key stakeholders like Universities, Ministry of Health, National Council for Persons with Disability and the Ministry of Gender and Social Protection (UNICEF Ghana, 2013). The policy is aimed at changing the way that Ghana’s marginalized

children: children with disabilities, ethnic minorities, the ultra-poor are perceived, served and included in the education system. It clearly states that ‘ Inclusive schools must recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and in partnerships with their communities.’

The inclusive policy therefore seeks to be the official policy position for educating persons with disabilities in Ghana. The policy aims to change systems, create mechanisms, equip schools and, in the process, change community perceptions of children with disabilities. It seeks to promote the notion that all children can learn, achieve and contribute to their communities and the Ghanaian society as a whole. The involvement of non-state actors such as the Ghana Blind Union, the Ghana Federation of the Disabled, the Ghana National Education Coalition Campaign, the World Education and International Council for Education of people with Visual Impairment played crucial roles in creating a policy that ensures that the rights and needs of all Ghanaian children are considered and addressed. The inclusive policy came into force in Ghana in 2015 and started with pre-service and in-service training for teachers in special needs and inclusive education to manage children with special educational needs.

2.6 Traditional Library Services

According to Eskay & Chima (2003), “libraries and librarians provide access to essential information that people need to participate in the emerging society. Therefore, they have a moral obligation to make information available to all

categories of users regardless of their gender, age, race, political affiliation or disability.”

However, studies conducted in the mid-1990s showed that libraries tend to be used primarily by highly educated elite and in some cases very low percentages of an African nation’s total population reported frequent use of the public library system; and in one case was found that less than 5 percent of the population used public libraries at all. (Okeke, 2009)

Another study conducted by Rosenberg (1993), taking Kenya as typical of most countries in Africa south of the Sahara, found that public libraries in Africa have failed to grow and develop symbiotically with society, and that libraries have not played a significant role in the social development thinking of Africa governments.

Additionally, a study conducted by the Electronic Information for Libraries – Public Library Innovation Program (EIFL – PLIP, 2011) in Ethiopia, Ghana, Kenya, Tanzania, Uganda and Zimbabwe in 2011, established that since public libraries were small in size, they contain limited collections, and have few resources at their disposal. The study also found that the main focus of the public libraries remains on traditional services like book lending, providing spaces for students in which to study, collection and storage of books, documents and manuscripts.

The description of traditional library services, from the findings of the study above, does not provide total inclusiveness to all categories of users. It discriminates against

the participation of the disabled, specifically the visually impaired, because the kind of service provided cannot be accessed by the visually impaired.

2.7 Library Services for the Visually Impaired

The right of the visually impaired to have access to education and information, just like any other member of society, is adequately captured in many policies, legislation and international agreements. However, one area that seems to be lacking is information accessibility. According to Gerstenberger (1985) information accessibility for the blind has always been and would continue to be a hot topic in library research and practice. He further states that one of the most important factors that face the academic progress and well being is the reading materials. For a child to develop into a mature, informed, and literate adult he or she must have access to ideas, facts, theories, attitudes, and vicarious emotional experiences. While the written word perhaps has been neglected somewhat in recent years in favor of other media like the television, movies, video games, etc. an understanding of and the ability to use language still signifies and is part of mature intelligence. Therefore, blind persons especially blind children, need access to reading material. To a blind person, library service is a critical-often the only-source of reading material. While a sighted person has not only his or her public library but the local book store, news-stands, the dentist's waiting room, and book clubs, to supply him or her with reading material, a blind person cannot expect to get recorded or Braille literature from these sources (Gerstenberger, 1985). As such the libraries are the only sources of recorded or Braille literature for the visually impaired.

Libraries over the decades have strived to provide humanized, convenient and remote services for the visually impaired. It is very important for visually impaired persons to acquire education and knowledge, but how to provide efficient knowledge and information services for them has always been the bottleneck for most libraries. It is worthy of note that libraries as service organizations mandated by their ethics of their profession render equal services to members of their communities irrespective of their physical or psychological limitations. As more people with disabilities attend higher institutions, it is incumbent upon library management to provide the same level of service to the disabled as is provided to users without disabilities (Ekwelem, 2013).

According to Willoughby (1990) library collection for the visually impaired must correspond with the manner in which the blind student reads and that curriculum-oriented Braille books must form the basis for the collection, augmented by large print and "regular" print books. In view of this, most libraries maintain and dispense the same kinds of hardware usually found in school library media centers such as record players, tape players, film strip projectors, overhead projectors, and film projectors (Harris and Oppenheim, 2003). The record players and tape players both have adapters for blind people. In most academic libraries many titles are found in the library in both print and Braille so that teachers with students who are totally blind as well as students with some usable vision may require both to read the same book. Some libraries provide books on audiotape cassettes and records. However, these so-called "talking books" are not popular with the students and are being phased out of production in favor of the easy-to-carry and easy-to-operate audiotape and CDs (Willoughby, 1990).

It's also worthy of note that the physical environment of the library is also paramount to the access of library services by the visually impaired. Hopkins (2000) stressed the importance of design features such as using contrasting colour schemes for the walls, floors and furniture to design an environment as paramount to the effective and efficient patronage of library services for the visually impaired. However, in most libraries, this is constrained by inadequate financial support that would be helpful to VIP. According to MacDonald (2000) financial constraints is understandably the greatest impairment to the changing of the physical appearance of a library for the benefit of the disabled. This assertion was strongly opined by Wei, Lirong, Li and Zhao (2012) who investigated the provision of library resources for visually impaired students in the further education sector in England, Scotland and Wales and their awareness of the Special Educational Needs and Disability Act 2001. It was found that the Act had affected each library differently. Some were better equipped to implement the requirements of the Act due to the resources already in place, the positive attitudes of senior management encouraging advancements in this area and previous experience in assisting visually impaired students. Other libraries had more work to do and concerns surrounding training and funding were raised as possible problems that could prevent the successful implementation of the Act.

The traditional role of libraries has been to provide information resources to their user community. The libraries are thus committed to ensure full access to their range of services and facilities to one and all; and also to accommodate individuals with disabilities within their physical space. Edward and Lewis (1998), assert that “accessing the printed word has long been recognized as a significant barrier of integration of visually impaired individuals into school and environment.” This

section looks at library services generally available for visually impaired against what is available at the three public universities under study to determine whether they are adequate to accommodate the visually impaired.

According to Michell (1996) “the ideal library service is one where each individual, regardless of the degree of visual impairment, has access to the materials and information at the time they are required, in a format that can be used, in the quantities that are needed, and where the needs of the user are understood by the staff.” According to the literature, blind people and those visually impaired traditionally read Braille, tape Audio-Books and large print books produced and provided by specialized libraries for the blind. New technologies, according to the literature, have opened up new areas of reading, participations and activities for people with disabilities that were inaccessible only a few years ago.

Blindness and sight impairment are very common disabilities world-wide. In 1996 the Royal Society estimated that 300,000 people in Australia had difficulties to read print, even when wearing glasses. Blake,(1998), indicated that of approximately one million people who are registered as blind or partially blind in the United Kingdom, nine out of ten are over 60 years. According to the literature, there is considerable emphasis on the role that information plays in the lives of the disabled, however, the literature maintains that information is not easily accessed by a large number of people with disability. In the words of Edward & Lewis (1998), “accessing printed materials has long been recognised as a significant barrier of integration of visually impaired individuals into school and work environments”.

Libraries have a traditional role in providing full access to services and facilities to one and all, including individuals with disabilities within the libraries' physical spaces. Friends (2009), cited in Eskay & Chima, (2013), opined that less than 5% of information materials available to sighted library patrons are accessible to the visually impaired. The literature maintains that the same can be said of the deaf and other students with different forms of disabilities; and it is therefore the moral duty of libraries and librarians to make sure that they provide information materials in all formats to all categories of their users.

Michell (1996), is of the view that “the ideal library service is one where each individual, regardless of the degree of visual impairment, has access to the materials and information at the time they are required, in a format that can be used, in the quantities that are needed, and where the needs of the user are understood by the staff”. According to Fullmer & Majunder (1991), “the ability to obtain and use information about any subject gives a person the opportunity to choose a path from many alternatives instead of being limited to a few perhaps unwanted and infeasible choices”.

Disabled persons including visually impaired students grapple with challenges in their attempt to access library facilities and information resources in their academic pursuit. Notable among these challenges are social discrimination and cultural bias. It is a well known fact that, the library facilities in some public libraries, including public academic institutions were constructed with very little or no attention or consideration to the needs of handicapped persons, including visually impaired students, and thus limit their access to information in libraries which ultimately affect their information

seeking behavior. Information behaviour is those activities a person may engage in when identifying his or her own needs for information searching for such information in any way, and using or transferring that information (Wilson, 2000).

Blind people and those visually impaired traditionally read Braille, Tape Audio-books and large print books produced and printed by specialized libraries for the blind. Today, visually impaired can access computer programmes, Internet and digital resources using electronic aids; Assistive or Adaptive Technology such as Braille displays, screen magnifying monitors, screen magnifications, scanning software with OCR, screen readers and synthesis.

According to Kapoor (2012) cited in “Assistive Technology for the Visually Impaired Persons”, assistive technology has revolutionized the lives of visually impaired persons in many countries giving them equal access to services and public places. According to the literature, not only has it given access to computers and all its advantages but also has led to the advance of several special devices which together have gone a long way in overcoming the difficulties faced by the visually impaired. The literature adds that in the case of the visually impaired, it is often the use of assistive technology that ensures their equal participation in many social activities ranging from meetings and entertainment to the more personal activities of reading books, accessing information or enjoying recreational activities.

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CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the stages and processes by which the study was carried out. These include the research design or strategy, population, sampling size and sampling techniques, research instruments, data collection procedure and data analysis. It finally looked at ethical issues of the study.

This study involved a methodological triangulation. Methodological triangulation involves the application and combination of several research methodologies in one study. There are four common types of triangulations. There is the investigator triangulation which uses multiple observers, theory triangulation which uses more than one perspective to interpret the study phenomenon, methodological triangulation which uses more than one methodological strategy during data collection and data triangulation which involves time, space and person (Mackenzie & Knipe, 2006). The study used data triangulation because of the three different locations of the study and the several groups of people making up the population for the study.

3.2 Research Design/ Strategy

A research design refers to the overall strategy that a researcher chooses to integrate the different components of the study in a coherent and logical way, thereby, ensuring that the researcher effectively addresses the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data (Trochim, 2006).

According to Gravetter and Forzano (2006), a research design is a general plan for implementing a research strategy. A research design is the most significant element of the research process. With this part, all that matter in the research is designed, options considered, decisions made and details of the research laid down for execution (Sarantakos, 2005).

The descriptive survey design was used for the study. This method was used because of its suitability in helping to provide an accurate description of a particular situation in real life setting. According to Gay and Airasain (2000), the descriptive survey research design involves collection of data in order to test hypotheses or answer research questions concerning the current status of the subject of the study, since a descriptive survey is to observe, describe, and document aspects of a situation as it occurs naturally. McMillan (1996) opines that “a descriptive study describes a phenomenon; the description is usually in the form of statistics such as frequencies or percentages, averages and sometimes variability”.

Fraenkel and Wallen (2000) have observed that, “a descriptive survey involves asking the same set of questions (what, why, which, how) often in the form of questionnaires of a large number of individuals. Leedy and Omrod (2005) described this design and said it “involves either identifying the characteristics of an observed phenomenon or exploring possible correlations among two or more phenomena. In every case, descriptive research examines a situation as it is”. The researcher found it appropriate to employ descriptive survey because the study sought to also describe and document the provision of library services for the visually impaired in Ghana.

Despite the problems associated with the use of descriptive approach such as, the difficulty in ensuring that items on the questionnaire or interview guide are very clear; the difficulty of getting respondents to respond to the items in the right manner, and the difficulty in getting the questionnaires completed in time, as noted by Babbie (2007), the design has the potential of providing information on an entity or phenomenon under study. The descriptive approach therefore best suits the study.

3.3 Selection of Subjects

3.3.1 Population

The population of the study consists of the visually impaired students, as well as the librarians of the three selected public universities, namely University of Cape Coast (UCC), University of Ghana (UG) and University of Education, Winneba (UEW).

Students with visual impairment, totaling 116, were targeted because they use the special services of the library and that they are the best people to provide insights into what they want as well as what their challenges are. The librarians of the three selected university libraries were selected because they have direct contact with the issues concerning students with visual impairment.

3.3.2 Sample size and Sampling Technique

In all, a total of 119 respondents were involved in the study, comprising 116 visually impaired students and three (3) librarians selected from the three universities as shown in Table 3.1 below.

Table 3.1 List of Respondents

Respondents	UCC	UEW	UG	Total
Visually Impaired Students	30	60	26	116
Librarians	1	1	1	3
TOTAL	31	61	27	119

Because of the smaller number of the total population of students with visual impairment in the three universities; all of them were purposively selected for the study. Similarly, all the three (3) University Librarians were also purposively selected.

3.4 Research Instruments

The main instruments for data collection were the questionnaires and a semi-structured interview.

3.4.1 Questionnaire

Questionnaire was chosen as the main data collection instrument for several reasons; firstly, because it is very effective for securing factual information about practices and conditions of which the respondents are presumed to have knowledge and for enquiring into opinions and attitudes of the subjects. Another reason for choosing the questionnaire was that it is easy to fill and takes little time as compared to other instruments like the interview. Finally, when dealing with a large number of respondents, the questionnaire is the best and appropriate technique. The questionnaire comprised a combination of both close and open-ended questions.

In the case of open-ended questions respondents are free to formulate their own answers the way they consider to be the most appropriate, in their own way and in their own words. The disadvantage of the open-ended question, however, is that it is difficult to analyse and it encourages bluffing on the part of the participants.

The close-ended questions are those that call for checked responses. They include a set of questions to which participants can reply in a limited number of ways by selecting an answer from a list of possible responses. An advantage of the close-ended questions is that it is easier and quicker to answer. Moreover, it requires no extensive writing, hence, quantification is straight-forward. This allows more questions to be asked within a given length of time. The close-ended questions were used because, the responses were fixed and the respondents were expected to choose the option within which he or she agrees most.

3.4.2 Interview

This data collection instrument is more flexible and is used to collect detailed information that cannot be elicited by using questionnaires.

Defined by Best and Kahn (1998) as a two-way communication between the interviewee and the respondents, interviews have the advantage of attracting a relatively high response and have the capacity for correcting misunderstanding by respondent (Amedahe, 2002). In the estimation of Burns (1999), interviews are a popular and widely used means of collecting qualitative data. To this end, the researcher wanted to elicit first-hand information directly from some visually impaired students and librarians assigned to these students. Paton (1990) categorises

interviews as informal conversation interview, interview guide or semi-structured approach, structured open-ended interview and closed or fixed response interviews. Making a choice among these types depended on factors such as the phenomenon under study, objectives of the study and the type of data (Merriam, 1998). Thus, the semi-structured interview approach emerged the appropriate choice for the study.

Semi-structured interview was employed to elicit primary information from the three University Librarians. A key reason for this choice is that it ensures uniformity and as well as accommodates the peculiar characteristics of each respondent. That is, even though the themes and areas of interview were pre-determined, new and relevant issues were admitted accordingly. Broadly, the interview was semi-structured to accommodate the thematic areas spelt out in the objectives.

Semi-structured interview was preferred since it allowed for the accommodation of other significant issues that arose at any material moment. Again, it is more preferred to a structured interview since each of the respondents is unique, and needs to be approached as such. Interviews as a whole could however be time-intensive and prone to possible bias. Although face-to-face interviews can result in interviewer bias, they provide visual cues or aids to the discussion.

3.5 Data Collection Procedure

The researcher employed the use of questionnaires and interview for data collection. A letter was collected from the Department of Information Studies the purpose of which was to introduce the researcher as a student from the University of Ghana who was conducting the research as part of an academic exercise. This enabled the

researcher to establish good rapport with all the selected respondents and also created formal courtesies with all the targeted respondents. All the respondents were informed on the objectives and design of the study. Emphasis was made on the fact that the findings are primarily for academic purposes only.

The researcher sought the assistance of field assistants, two from each university to help her administer the questionnaires to the respondents. For the purpose of getting their maximum cooperation, the field assistants were motivated to follow up on the respondents to collect back all questionnaires that were administered by them in their respective universities. A time space of a maximum of ten working-days, from the date of administering the questionnaire was planned for collecting back the questionnaires. This was not possible as some of the field assistants took their annual vacation and their absence, to a large extent delayed the collection of the questionnaires considerably and subsequently other related processes that followed.

The questionnaires were administered to all the students with visual impairment; for reason of their number. In the course of the administration of the questionnaires (See Appendix A), the field assistants read the questions to the respondents in a group, who brailled their respective responses and these were later transcribed by resource persons into words which were used to complete or fill out the main questionnaire forms on their behalf. Furthermore, the researcher obtained the contact mobile numbers of some of the respondents and so communicated with them on phone to administer the questionnaires by reading the questions to the respondents for them to provide the answers which the researcher recorded by filling in the answers on the questionnaire.

Regarding the interview, the researcher conducted the interview using a prepared semi-structured interview schedule. (See appendix B). In some instances, particularly with the three Librarians, the researcher used a digital recording device as much as was necessary with the consent of the interviewees, in collecting information in addition to taking side notes. The digital recorder served as a back-up source of information particularly, during the analysis of data when it became necessary to play back the recorded information and transcribed into words.

3.6 Data Analysis

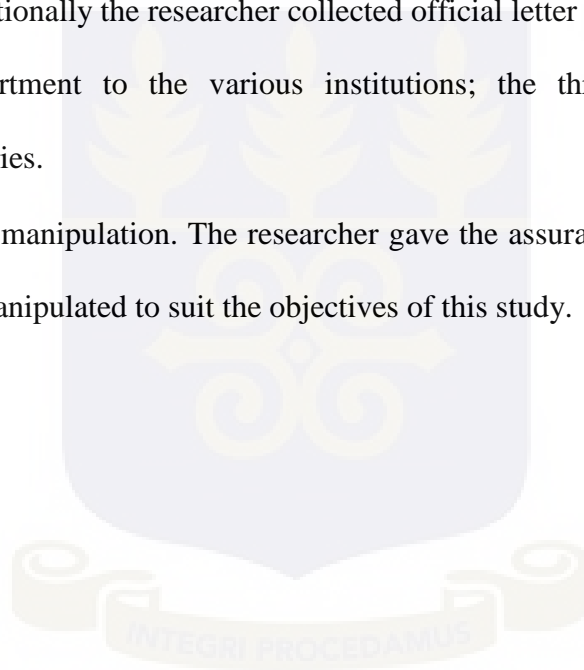
The data collected from the questionnaire was edited, coded and entered into the Statistical Package for Social Sciences (SPSS) software, version 21.0. The results were presented using tables, cross-tabulations and percentages. The data from the interview was organised into appropriate themes and analysed accordingly.

3.7 Ethical issues

- Permission was sought from the Ethical Review Board (ERB) of the University of Ghana who has an important gate-keeping role in ensuring that the researcher has thought through all the relevant issues and has conformed to required codes of practice and the demands of the Ethical Review Board.
- Privacy of respondents; Aware of the individual's right to privacy, the researcher religiously observed and respected the privacy of all her respondents. The researcher did this by obtaining the informed consent of those interviewed, questioned, or took materials from. In the use of data

and its analysis, the researcher, in reporting the research work ensured confidentiality and anonymity of the respondents.

- Consent for administration of instrument. Before administering research instruments the researcher explained the purpose of the interview to respondents and assured them that their responses would be used for academic purpose only and that the respondents takes personal responsibility for any short comings that may arise from the responses they offer.
- Additionally the researcher collected official letter of introduction from the Department to the various institutions; the three selected university libraries.
- Data manipulation. The researcher gave the assurance that data would not be manipulated to suit the objectives of this study.



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CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the analysis and discussion of the data collected from 116 respondents of the University of Cape Coast (UCC), University of Education, Winneba (UEW) and University of Ghana (UG) including the interview with the three librarians of the mentioned institutions. The first section describes the basic information derived from analysis of each variable while the second and subsequent sections address the research objectives in relation to the research questions respectively. With respect to the first section, the conduct of this study entails respondents' personal details including gender, programme of study, level and on-campus residential status. It was assumed that these attributes of the respondents influenced their answers on the survey questions.

The second section addresses the kinds of library services that are available for Visually Impaired Students (respondents) in the public universities of Ghana. Adequacy of services being provided by the public university libraries for the visually impaired students is dealt with in section three while sections four, five, and six cover format in terms of materials, services and equipment respondents prefer the public university libraries to provide. The rest are existing infrastructures in the public university libraries for respondents and examination of the challenges libraries face in responding to the needs of visually impaired students respectively.

In this study, the defined target population (visually impaired students) was 116 and of this, 116 questionnaires were administered and all retrieved. Therefore, the response rate (i.e., the percentage of usable responses out of the total number of respondents) was calculated as $116/116 \times 100$ resulting in a response rate of 100 percent. According to Babbie & Mouton (2002) a response rate of 60% is good but 70% is considered as very good. From the literature therefore, the response rate in respect of this study, can be considered as excellent.

The Statistical Package for Social Sciences (SPSS) was used to analyse the data obtained from the questionnaires. Tables were used where necessary, to document and support the interpretation of the data obtained. In addition to the use of questionnaires, a structured interview schedule was used in a face-to-face interview with the three University Librarians. Data obtained from the interviews were analysed using content analysis and information received was used by the researcher as part of her recommendations.

4.2 Biographical Data of Respondents

The biographical data of respondents to this study becomes necessary in a situation where questionnaires were used in the collection of data from respondents and requires that, the individual respondents should be able to understand and provide responses to the questions. Thus, the educational data of the respondents was necessary. Additionally, the focus of the study is on university students with visual

impairment therefore the decision to indicate in the data the biographical status of the respondents as visually impaired becomes more relevant under the circumstance.

There are a number of public universities in Ghana but not all of them imbibe the inclusive education policy relating to the visually impaired. The three public universities under study currently are the public universities in Ghana that offer inclusive education to the visually impaired, therefore for specificity the decision to include the names of the universities involved is most appropriate and in order. The inclusion of data on their residential status was also useful as far as the issues of inclusiveness and exclusiveness of people with disabilities are concerned. Inclusion of the gender of the respondents in the biographical data is relevant in establishing gender balance of students with visual impairment in higher education.

4.2.1 Gender of Respondents

Table 4.1 presents the distribution of respondents by university and gender. Table 4.1 shows that there were 116 respondents made up of 30, 60 and 26 respondents from UCC, UEW and UG respectively. Of the 116 respondents, 100 (86.2%) were males and 16 (13.8%) were females. In other words, there were more males than females in the study sample.

Table 4.1: Distribution of Respondents According to Universities

<i>Gender</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Male	21	18.1	46	39.6	21	18.1	88	75.8
Female	9	7.8	14	12.1	5	4.3	28	24.2
Total	30	25.9	60	51.7	26	22.4	116	100.0

Field Survey Data, 2016

This is a reflection of what pertains in most institutions or organisations including the three universities in the study where male dominance is common in almost every field. This is very clear from Table 4.1 across the three universities. However, of the 60 respondents from UEW, 46 (39.6%) were males as compared with UCC 21 (18.1%) and UG 21 (18.1%) respectively. Of the 28 females in the study, UCC had 9 (7.8%) females, UEW 14 (12.1%) and UG 5 (4.3%) respectively.

4.2.2 Programme of Study of Respondents

The respondents were also asked to indicate the programmes of study they were pursuing. Table 4.2 shows that seven programmes were being pursued by the respondents. Two of the programmes (B.Ed. and Master of philosophy) were from UCC and another two (B.Ed and B.A Social Studies) were UEW programmes, while political science, social work, sociology and psychology were being perused by respondents at UG. As expected a majority, 29 (25.0%) of the respondents from UCC and for UEW 57 (49.0%) were pursuing B.Ed and as a result 86 (74.0%) of the respondents were pursuing B.Ed with the exception of UG where 14 (12.1%) of the respondents were reading political science. For the majority of the respondents to be pursuing B.Ed suggests that of the courses offered by the respondents B.Ed was a

preferred choice of course of study of the Visually Impaired Students. When asked to indicate whether the programme they were pursuing was an undergraduate or a postgraduate course about 115 (99.1%) indicated that they were undergraduates. It was also found out that with the exception of UCC where 1 (0.9%) of the respondents was pursuing a postgraduate course, all the students from UEW and UG were also pursuing undergraduate courses.

Table 4.2: Distribution of courses offered by respondents

<i>Programme</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
B.Ed	29	25.0	57	49.0	0	0.0	86	74
B.A Social studies	0	0.0	3	2.6	0	0.0	3	2.6
Political science	0	0.0	0	0.0	14	12.1	14	12.1
Social work	0	0.0	0	0.0	6	5.2	6	5.2
Sociology	0	0.0	0	0.0	3	2.6	3	2.6
Psychology	0	0.0	0	0.0	3	2.6	3	2.6
M'Phil. (Education)	1	0.9	0	0.0	0	0.0	1	0.9
Total	30	25.9	60	51.6	26	22.5	116	100.0

Field Survey Data, 2016

4.2.3 Levels of Respondents

Another personal characteristic of the respondents that was investigated was the level of study. Out of the 116 respondents 40 (34.5%) of the respondents were in level 100. Across the three universities however, 31 (26.7%) of the respondents from UEW were Level 100 students, followed by UG 9 (7.8%) and UCC 10 (8.6%) respectively were Level 200 students as shown in Table 4.3.

Table4.3: Respondents' Level of Study

Level	U.C.C		U.E.W		UG		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
Level 100	3	2.6	31	26.7	6	5.2	40	34.5
Level 200	10	8.6	13	11.2	9	7.7	32	27.6
Level 300	8	6.9	7	6.0	8	6.9	23	19.8
Level 400	8	6.9	9	7.8	3	2.6	20	17.2
Level 600	1	0.9	0	0.0	0	0.0	1	0.9
Total	30	25.9	60	51.7	26	22.4	116	100.0

Field Survey Data, 2016

4.2.4 Residential Status of Respondents

It is common knowledge that most private hostels providing accommodation to university students are situated at distances from the university campuses. For the disabled including the visually impaired to reside in any of the private hostels would mean an inconvenience to them in terms of proximity between their respective hostel and lecture halls including the libraries. This study therefore sought from the respondents concerning their residential status. They were asked to indicate whether

they were residents of any of the traditional halls of residence. It was assumed that all respondents would be residents of the traditional halls of residence on campus. About, 99 (85.3%) across the three universities claimed they resided in the traditional halls of residence while 17 (14.7%) reported that they did not live in any of the traditional halls of residence. With respect to the universities, 29 (96.7%) of the students from UCC had on-campus residential status, UEW, 44 (73.3%) and UG, 26 (100%) also had on-campus residential status.

4.2.4.1 Halls of Residence of Respondents

A follow up question which sought to ascertain the halls of residence reveals the names of the halls and hostels as they exist in each university. These halls were put into two categories: traditional halls of residence and private hostels. Of the 99 respondents who claimed they were in the traditional halls 79 (79.8%) had on-campus residential status, 16 (16.2%) lived in private hostels off-campus, while only 1 (1.0%) did not respond to the issue of on-campus residential status. This finding cuts across the three universities. For instance, 29 (96.6%) of the respondents from UCC stayed in traditional hall of residence; UEW, 38 (63.3%) and UG, 23 (88.5%) also lived in traditional hall of residence. In other words, the majority of the respondents resided in the traditional halls of residence or had on-campus residential status. Thus, the assumption that all respondents would be residents in the traditional halls of residence falls short of expectation. However, for the majority of the respondents to have on-campus residential status is a good development for all inclusive education.

4.3 Kinds of Library Services Available to Respondents

Most public libraries offer traditional library services such as lending, photo copying of printed materials and space for reading or studying to the user community. These services, to a very large extent, do not serve the needs of the visually impaired students as far as information search is concerned. It was therefore necessary to ascertain from the respondents precisely the kinds of library services available to them and whether or not the services met their needs.

4.3.1 Knowledge of Library Services Available to Respondents

The first objective of this study was to examine the kinds of library services available to respondents in public universities in Ghana. Therefore, attempt was made to find out from the respondents if they knew the kinds of library services available to them in their respective universities. The results showed that majority - 70 (60.3%) of the respondents stated that they did not know of the kinds of library services available to visually impaired students. This is to be compared with 42 (36.2%) of the respondents who asserted that they knew the kinds of library services available to visually impaired students. Four (3.4%) of the students did not respond to this issue. Within the universities, the following proportions of students from UCC, 16 (53.3%), UEW, 1 (1.7%) and UG, 25 (96.2%) knew the kinds of library services available to respondents while the following proportions of students from UCC, 13 (43.3%) and UEW, 57 (95.0%) stated that they did not know of the kinds of library services available to visually impaired students. None of the respondents from UG claimed any knowledge of the library services available to respondents. Only one student did not respond to the question.

4.3.2 Knowledge of Kinds of Services Available to Respondents

A follow up question solicited information on the kinds of library services available to respondents in the public universities. A number of services were listed by those respondents who reported that they knew the library services available to respondents. In all, six main areas of library services were listed as shown in Table 4.4. A total of 80 responses (Multiple responses were allowed) were recorded. This is more than the total number of respondents (42) who reported that they knew of the kinds of library services available to visually impaired students. On the part of UCC, computer literacy 8 (10.0%), Braille Documentation 6 (7.5%) and Assistive Technology 5 (6.3%) were frequently mentioned by the respondents as against Technical Assistance, Collection of Examination Scripts and Information Search.

Table 4.4: Kinds of Library Services Available to Visually Impaired Students

<i>Kinds of library services</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Computer Literacy	8	10.0	1	1.3	15	18.8	24	30.0
Braille Documentation	6	7.5	9	11.3	25	31.3	40	50.0
Assistive Technology	5	6.3	0	0.0	1	1.3	6	7.5
Technical Assistance	2	2.5	0	0.0	3	3.8	5	6.3
Collection of Examination Scripts	1	1.3	0	0.0	0	0.0	1	1.3
Information Search	0	0.0	2	2.5	2	2.5	4	5.0

Freq= 80(Multiple response)

Field Survey Data, 2016

With regard to UEW, the most frequently mentioned library services known to the respondents were Braille Documentation 9 (11.3%), Information Search 2 (2.5%) and Computer Literacy 1 (1.3%) as against Assistive Technology, Technical Assistance and Collection of Examination Scripts. On the part of UG, Braille Documentation 25 (31.3%), Computer Literacy 15 (18.8%) were frequently reported as against Assistive Technology, Technical Assistance, Information Search and Collection of Examination Scripts.

The results in Table 4.4 suggest that the kinds of library services which were popular or well known to be available to respondents in public universities in Ghana included Braille Documentation, 40 (50.0%), Computer Literacy, 24 (30.0%), Assistive Technology, 6 (7.5%), Technical Assistance, 5 (6.3%), Information Search 4, (5.0%) and Collection of Examination Scripts 1, (1.3%) in that order.

4.3.3 Awareness of Special Orientation for Respondents

Another aspect of the first objective was to find out whether the universities organised special library orientations for the respondents on their admission to the universities and whether they participated in it. It was found out that majority - 93 (80.2%) of the respondents maintained that the universities did not organise any special library orientations for them. This is to be compared with 20 (17.2%) of respondents who indicated that the universities organised special library orientations for them and 3 (2.6%) of respondents who for some reasons did not respond to this issue. This finding is reflected across the three public universities as 19 (63.3%) of the

respondents from UCC and majority, 55 (91.6%) of respondents from UEW and UG, 19 (73.0%) reported that their universities did not organise any special library orientations for them.

For those respondents who stated that the universities organised special library orientations for them, they were asked to indicate whether or not they took part in the special library orientations organised for the respondents. Results of the study revealed that 12 (60.0%) out of the 20 respondents who indicated that the universities organised special library orientations for respondents reported that they took part in the special library orientations organised for them as against 8 (40.0%) who indicated that special library orientations were organised for respondents but they did not participate in it. On the whole, not all the respondents across the three universities who claimed there were special library orientations for the respondents participated in the events.

Additionally a follow up question was posed to explore the reasons or perception held by respondents who indicated that the universities did not organise any special library orientations for the visually impaired. The purpose was to find out if such reasons or perception has the tendency to promote inclusiveness in the minds of respondents. Table 4.5 depicts the reasons provided by the 93 responses that stated that the universities did not organise any special library orientations for the visually impaired. Of the 93 responses, 50 (53.7 %) either had no idea or did not have any reason for saying why the universities did not organise any special library orientation for the visually impaired.

Table 4.5: Reasons for not participating in Special Library Orientation

<i>Reason</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Feeling of exclusion	2	2.2	28	30.1	4	4.3	34	36.6
Time constraints	1	1.1	0	0.0	1	1.1	2	2.2
Not around	1	1.1	1	1.1	0	0.0	2	2.2
General one organised for all freshers	0	0.0	0	0.0	5	5.4	5	5.4
No response/no idea/don't know	15	16.1	29	31.2	6	6.4	50	53.7

Freq = 93 (Multiple responses)

Field Survey Data, 2016

From UCC, 15 (16.1%) of the respondents from UCC for instance did not have any reason for saying that the university did not organise any special library orientations for the visually impaired. In the same vein, 29 (31.2%) of respondents from UEW and 6 (6.5%) of the respondents from UG could not give any reasons for indicating that the university did not organise any special library orientations for the visually impaired. However, about 37% of the respondents felt excluded; In particular, 2 (2.2%) of the respondents from UCC reported “feeling of exclusion”, 28 (30.1%) and 4 (4.3%) of the respondents from UEW and UG respectively indicated “feeling of exclusion” as their reason for saying that the universities did not organise any special library orientation for the visually impaired. For others 5 (5.4%), gave the reason that a general orientation was organised by the university for all freshers, while few, 4 (4.4%) either did not have the time to participate or were not around during the orientation. The reasons provided by the respondents across the three universities

suggest that special library orientation for the visually impaired was preferred by the respondents to a general orientation organised by the university for all freshers.

4.3.4 Kinds of Library Services Accessed

Respondents were asked the kind of library services they accessed for academic work (Multiple responses were allowed) and Table 4.6 shows the services mentioned. Most of their responses were 27 (25.5%) for Traditional Library Services, 26 (24.5%) for Computer Literacy and 27 (25.5%) for ICT Centre Services. Traditional Library Services were frequently mentioned by the respondents of UCC, 12 (11.3%) than respondents from UEW 9 (8.5%) and UG 6 (5.7%), while Computer Literacy Services were common among respondents of UG 13 (12.3%), and UCC 11 (10.4%) than UEW 2 (1.9%). With respect to ICT Centre Service, this was most frequently indicated by the respondents from UG 14 (13.2%) followed by UEW 9 (8.5%) than UCC 4 (3.8%). Resource Persons, Writing of Quizzes/Assignments/Examinations, Assistive Technology and Embossing of Work were services which were least mentioned by the respondents across the three universities. For “Traditional Library Services”, “Computer Literacy” and “ICT Centre Services” to be frequently mentioned is an indication of how important these services are to the respondents.

Table 4.6: Kind of Library Service(s) Accessed by Respondents

<i>Kind of Library Service(s)</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Traditional Library services	12	11.3	9	8.5	6	5.7	27	25.5
Computer Literacy	11	10.4	2	1.9	13	12.3	26	24.5
Services by Resource Persons	7	6.6	2	1.9	6	5.7	15	14.2
ICT Centre Services	4	3.8	9	8.5	14	13.2	27	25.5
Writing of Quizzes/Assignments/Examinations	3	2.8	1	0.9	0	0.0	4	3.8
Embossing of Work	1	0.9	1	0.9	1	0.9	3	2.8
Assistive technology	1	0.9	0	0.0	3	2.8	4	3.8

Freq = 106 (Multiple response)

Field Survey Data, 2016

With reference to the use of the library for academic work, 25 (83.3%) of the respondents from UCC, 12 (20.0%) from UEW and 21 (81.0%) from UG used the library for academic work. Overall, 58 (50.0%) of the respondents across the three universities used the library for academic work while 58 (50.0%) did not use the library for academic work. For those respondents who did not use the library for academic work, majority - 48 (80.0%) were from UEW. This is an indication of the extent of difficulty with the use of the library by the respondents for academic work especially those in UEW.

Of the respondents who responded to the use of the library for academic work, 58 (50.0%) reported that they did not use the library for academic work. When the 58 (50.0%) who indicated that they did not use the library for academic work were asked to explain why they did not use the libraries for academic work, 66 responses were provided (Multiple reasons were allowed). Respondents from two out of the three universities (UCC and UEW), responded and the reason given mostly was “Library not user friendly” (exclusiveness) as shown in Table 4.7. However, this reason was more pronounced among the respondents in UEW, 54 (81.8%) than among respondents in UCC 1 (1.5%). Another reason that was common was non-availability of Technical Services; this was frequently mentioned by respondents from UEW, 6 (9.1%) when compared with that of respondents from UCC, 1 (1.5%).

Table 4.7: Reasons for not Using Library for Academic Work

<i>Reason</i>	U.C.C		U.E.W		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Library not user friendly(exclusiveness)	1	1.5	54	81.8	55	83.3
Non availability of ICT equipment	1	1.5	1	1.5	2	3.0
Non- availability of technical services	1	1.5	6	9.1	7	10.6
Do not know direction to the library	0	0.0	2	3.0	2	3.0

Freq = 66(Multiple responses) Field Survey Data, 2016

4.3.5 Assistance of Guides/ Resource Persons to Respondents

Related to the kinds of library services available to respondents were issues about respondents seeking help from Student Guides, Library Assistants and Resource Persons in accessing library services. On the other hand, the study also sought to find

out reasons why respondents would not seek help from Student Guides, Library Assistants nor from Resource Persons.

With respect to respondents seeking help from Student Guides in accessing library services, the results show that of the 116 respondents who responded to this issue, majority, 77 (66.4%) did not seek help from Student Guides in accessing library services while 39 (33.6%) reported that they sought help from Student Guides in accessing library services. The proportion 77 (66.4%) of respondents who did not seek help from Student Guides in accessing library services in UG was more than that of UEW 41 (68.3%) and UCC 13 (43.3%) respectively. Among those who sought help from Student Guides in accessing library services, majority 17 (56.7%) were from UCC when compared to that of UEW and UG respectively.

With regard to the reasons (Multiple reasons were allowed) for seeking help from Student Guides in accessing library services. Table 4.8 shows that 66 responses were given and the most common reason given was “Student Guides appreciate academic needs of Visually Impaired Students” was 23 (34.8%). This reason was more pronounced among the respondents in UCC - 16 (24.2%) in comparison to UEW, 6 (9.1%) and UG, 1 (1.5%) respectively. This was followed by the fact that “Library Assistants were not enough to attend to respondents” (21.2%). This reason was frequently cited by respondents from UG, 2 (3.0%) when compared with UCC, 7 (10.6%) and UEW, 5 (7.6%). Another reason that respondents felt worth mentioning was “Student Guides were more friendly and accommodating than Library Assistants” 12 (18.2%). This reason was mentioned more often by respondents of UEW, 6 (9.1%)

than UCC, 6 (9.1%). However, none of the respondents from UG reported that Student Guides were more friendly and accommodating than Library Assistants. The reasons provided by the respondents for using Student Guides reflect the extent of inadequacy of Library Assistants and their attitude towards respondents.

Table 4.8: Reasons for Seeking Help from Student Guides in Accessing Library Services

<i>Reasons</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Library Assistants not enough to attend to VIS	7	10.6	5	7.6	2	3.0	14	21.2
Library Assistants not readily available to respond to VIS	2	3.0	5	7.6	1	1.5	8	12.1
Library Assistants not patient enough to accommodate VIS	0	0.0	8	12.1	1	1.5	9	13.6
Student Guides are more friendly/accommodating than Library Assistants.	6	9.1	6	9.1	0	0.0	12	18.2
Student Guides appreciate academic needs of VIS	16	24.2	6	9.1	1	1.5	23	34.8

Field Survey Data, 2016 Freq = 66 (Multiple response)

On the issue of respondents receiving assistance from the Library Assistants in accessing library services, the study found that 65 (56.0%) did not receive assistance from Library Assistants in accessing library services while 46 (39.7%) stated that they received assistance from Library Assistants accessing library services while 5 (4.3%) did not respond. Of those who did not receive assistance from Library Assistants in

accessing library services, majority 56 (93.4%) were from UEW when compared with respondents who did not receive assistance from Library Assistants in accessing library services from UCC and UG. However, among those who received assistance from Library Assistants in accessing library services, majority 20 (77.0%) were from UG followed by UCC, 22 (73.3%) and UEW, 4 (6.6%) respectively.

This aside, the issue of respondents receiving assistance from Resource Persons was also investigated. The results revealed that of the 116 respondents 73 (62.9%) received assistance from Resource Persons while 43 (37.1%) of respondents said that they never had any assistance from Resource Persons. By way of extension, all the 30 (25.9%) respondents from UCC claimed they received assistance from Resource Persons, 23 (19.8%) of the respondents from UG had received some kind of assistance from the Resource Persons while 20 (17.2%) of respondents from UEW reported having received assistance from Resource Persons. However, among respondents who did not receive any assistance from Resource Persons, majority 40 (34.5%) were from UEW when compared with 3 (2.6%) of respondents from UG. The high proportion of respondents claiming they did not receive assistance from Resource Persons is an indication that the resource persons are inadequate. These are captured in table 4.9

Table 4.9: Response to Resource Persons Assistance

	U.C.C		U.E.W.		UG		TOTAL	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Assistance	30	25.9	20	17.2	23	19.8	73	62.9
No Assistance	0	0	40	34.5	3	2.6	43	37.1
Total	30	25.9	60	51.7	26	22.4	116	100

Field Survey Data, 2016

The respondents who received some kind of assistance from Resource Persons were requested to indicate the kind of assistance they received from the Resource Persons. Table 4.10 presents the results. There were 162 responses (Multiple responses were allowed) and of these, Brailing of documents accounted for 82 (50.6%). This is followed by computer literacy 26 (16.0%), assistance of guides 12 (7.4%) and auxiliary services 12 (7.4%). With respect to Brailing of documents as the most demanded service received from resource persons, it was frequently mentioned by respondents from UCC, 33 (20.4%), followed by UG, 28 (17.3%) and UEW, 21 (13.0%) in that order. For Brailing of document to be frequently mentioned as the assistance received from Resource Persons suggests how important this service is to the respondents' academic work.

Table 4.10: Kind of assistance received from Resource Persons

<i>Kind of assistance</i>	U.C.C		U.E.W		UG		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
Brailing of documents	33	20.4	21	13.0	28	17.3	82	50.6
Assistance of resource persons	0	0.0	4	2.5	0	0.0	4	2.5
Assistance of guides	11	6.8	1	0.6	0	0.0	12	7.4
Computer literacy	14	8.6	3	1.9	9	5.6	26	16.0
Auxiliary service	10	6.2	1	0.6	1	0.6	12	7.4
Traditional library services	1	0.6	3	1.9	5	3.1	9	5.6
Embossment of Braille materials for use	8	4.9	1	0.6	0	0.0	9	5.6
Conversion of hardcopy documents into soft copy	2	1.2	1	0.6	0	0.0	3	1.9
Scanning hard copies to soft copies	2	1.2	3	1.9	0	0.0	5	3.1

Freq = 162(Multiple response)

Field Survey Data, 2016

4.4 Perceived Adequacy of Library Service Provision

This study also sought to evaluate the adequacy of the provision of library services for the visually impaired hence the research question which sets out to find the adequacy of library services provision by the public university libraries for the visually impaired. Respondents were asked to evaluate the kind of library services the University Library provides for the Visually Impaired Students. Table 4.11 reveals that majority 76 (65.5%) of the respondents were of the view that the kind of library

services the university libraries provided for the respondents were inadequate This is to be compared with 26 (22.4%) of respondents who reported that the kind of library services the university libraries provide for the respondents were either highly adequate or adequate, while 14 (12.1%) were of the opinion that the kind of library services the university Libraries provide for the respondents were fairly adequate.

Table 4.11: Perceived adequacy of library services for the respondents

	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Highly adequate	1	0.9	0	0.0	3	2.6	4	3.4
Adequate	7	6.0	0	0.0	15	12.9	22	19.0
Fairly adequate	8	6.9	3	2.6	3	2.6	14	12.1
Inadequate	14	12.1	57	49.1	5	4.3	76	65.5
Total	30	25.9	60	51.7	26	22.4	116	100.0

Field Survey Data, 2016

Across the three universities, Table 4.11 clearly shows that a greater percentage, 57 (49.1%) of the respondents from UEW evaluated the kind of library services the university library provided for the respondents as inadequate, while 14 (12.1%) and 5 (4.3%) of the respondents from UCC and UG respectively were of the opinion that the kind of library services the university libraries provided for the respondents were inadequate. However, respondents from UG, 15 (12.9%) and UCC, 7 (6.0%) did share the same opinion that the kind of library services their respective university libraries provided for the respondents were adequate. This suggests that differences exist in

terms of adequacy of the kind of library services the university libraries provide for the respondents across the two universities.

4.4.1 Services required but not offered by Library

Another aspect of research question two is the issue of other library services respondents expect the university libraries to provide for visual impaired student but are not being provided by the university libraries. This aspect of research question two focuses on the kinds of library services respondents expect the university libraries to provide for visually impaired student but are not being provided by the university libraries, respondents' knowledge of opening hours of the university libraries, enough time to access the kind of service(s) respondents require from their university libraries, extension of time and suggested library opening hours.

With respect to other library services respondent expected the university library to provide for visually impaired students but were not being provided by the university libraries, a total of 81 (69.8%) respondents across the three universities felt that indeed, there were other library services respondents expected the university libraries to provide for Visually Impaired Students but were not being provided, while 35 (30.2%) felt there were no other library services respondents expect the university libraries to provide for which the University libraries are not providing. For those respondents who shared the opinion that there were other library services the University Libraries should provide but were not being provided, majority 48 (80%) of the respondents from UEW and UCC 23 (76.7%) believe in this opinion as compared to respondents from UG 10 (38.5%). Among respondents who differ with the idea that there are other library services respondents expects the University

Libraries to provide but are not being provided by the University libraries, majority 16 (61.5%) of the respondents came from UG when compared with UCC 3 (23.3%) and UEW 12 (20.0%). For the majority of the respondents to report that there were other library services the University Library should provide but were not being provided was a reflection of the need to provide more services adequate to meet the academic needs of respondents across the public universities in Ghana.

Table 4.12: Other Library services respondents expect the university library to provide but is not being provided

	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	%	<i>Freq</i>	%	<i>Freq</i>	%	<i>Freq</i>	%
<i>Other services</i>								
Assistive Technology	16	15.0	43	40.2	7	6.5	66	61.7
Provision of infrastructure/equipment/materials	11	10.3	12	11.2	1	0.9	24	22.4
Compatible format	7	6.5	1	0.9	1	0.9	9	8.4
Provision of resource persons	0	0.0	7	6.5	0	0.0	7	6.5
Auxiliary services	1	0.9	0	0.0	0	0.0	1	0.9

Freq = 107(Multiple response) Field Survey Data, 2016

With regard to the respondents 81 (69.8%) across the three universities who felt that there were other library services respondents expected the University Library to provide for Visual Impaired Students but were not being provided by the University library, they were asked to list the services (Multiple responses were allowed). Table 4.12 exhibits the details. In all, there were a total of 107 responses and of these 66 (61.7%) represented assistive technology provision of infrastructure/equipment/

materials accounted for 24 (22.4%) while compatible format, provision of resource persons and auxiliary services together represented 17 (15.8%) of the total responses for other library services respondents expected the university libraries to provide for Visually Impaired Student but are not being provided by the university libraries. The data in Table 4.12 suggests that even though five other services that the university library should have provided but were not being provided were frequently cited by the respondents across the three universities, Assistive Technology and provision of infrastructure/equipment/materials stood out when compared to the remaining services mentioned by the respondents.

4.4.2 Awareness of Working Hours

Another service being provided by the public university libraries for the visually impaired is the opening hours, that is when the libraries open and close. This study tried to find out from the respondents the working hours of the libraries in the three universities that were being studied. The assumption here was that respondents' knowledge of the working hours of the library that they used would go a long way to enhance their effective use of their time and the services being provided for respondents by the libraries. Therefore, respondents in each of the three universities were asked about the working hours of their university libraries. In response, 53 (45.7%) of respondents mentioned 8am – 10pm while 13 (11.2%) indicated 8am-5pm. Put in another way, a total of 66 (56.9%) of the respondents mentioned the working hours of their respective universities to be between 8am-5pm and 8am-10pm. However, 50 (43.1%) of the respondents did not know about the working hours of their university library. This has serious implication for effective use of the libraries in

each of the three universities so far as respondents are concerned. In the case of UCC, majority 29 (96.7%) of the respondents indicated 8am-10pm as the working hours of the library, 14 (23.3%) of the respondents from UEW and 10 (39.0%) from UG also mentioned 8am-10pm as the working hours of their libraries respectively. These are to be compared with respondents from each of the three universities who thought that the working hours of their university libraries were between 8am- 5pm. On the part of those respondents who did not know the working hours of their university libraries, majority 44 (73.4%) were from UEW, followed by UG 4 (15.4%) and none from UCC. The two different closing hours, that is 5pm and 10pm, given by the respondents were as a result in the case of UG, where the VIS Section of the library closes at 5pm and the other sections of the library for able-bodied students remained open until 10pm.

4.4.3 Preferred Working Hours

Furthermore, respondents were asked to indicate whether or not the working hours allowed them enough time to access the kind of service(s) they required from their university library. This issue was directed to the 66 respondents of the three universities who provided the opening hours of their university library. Of the 66 respondents, majority 44 (66.7%) reported that the opening hours allowed them enough time to access the kind of service(s) they require from their university library as against 22 (33.3%) who said that the working hours did not allow them enough time to access the kind of service(s) they required from their university library. In the same way, 22 (73.3%) from UCC, 36 (60.0%) from UEW and 16 (61.5%) from UG stated that the opening hours allowed them enough time to access the kind of

service(s) they required from their University Library. On the contrary, 8 (26.3%) of respondents from UCC, 23 (38.3%) of respondents from UEW and 10 (40%) of respondents from UG said that the opening hours did not allow them enough time to access the kind of service(s) they required from their University Library. For the majority of respondents to point out that the working hours allowed them enough time to access the kind of service(s) they required from their University Library is a good sign of effective use of the working hours by the respondents rather than being unsuitable.

By way of extension, the 22 respondents who reported that working hours did not allow them enough time to access the kind of service(s) they required from their university library, were asked to indicate whether or not they would recommend extension of time. As expected, majority 14 (63.6%) indicated their intention to recommend extension of time compared with 7 (31.8%) who would not do so and 1 (4.5%) who did not respond to the issue of extension of time. From the universities side, majority 50 (83.3%) of respondents from UEW would not recommend any extension of time. However, 26 (87.5%) from UCC and 20 (75.0%) from UG of respondents declared their intention to recommend extension of time. For some group of respondents to declare their intention to recommend extension of time implies that the working hours of the three universities as reported by some of the respondents were not necessarily suitable for all respondents. To this end, there was a need for a follow up question to ascertain the recommended extension of time. Table 4.13 shows the recommended extension of time.

Table 4.13: Preferred Opening Hours for the Library

	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
<i>Suggestions</i>								
Library to open earlier for VIS only	3	18.8	0	0.0	0	0.0	3	18.8
Library to extend hours to all students	4	25.0	1	6.3	2	12.5	7	43.8
Library to extend library service to VIS including traditional halls	1	6.3	3	18.8	2	12.5	6	37.4

Freq = 16 (Multiple response)

Field Survey Data, 2016

From Table 4.13 it can be seen that about 7 (43.8%) of respondents who would recommend extension of time also want the library to extent hours to all students, others, 6 (37.4%) desire that the library should extend library service to VIS to include traditional halls of residence; while the rest 3 (18.8%) wish that the library should open earlier for VIS only. However, within the universities, 1, (6.3%); 3, (18.8%) and 2 (12.5%) of respondents from UCC and UEW and UG respectively wanted extension of the library's working hours to VIS to include traditional halls of residence. Additionally, 3 (18.8%) of respondents from UCC desired that the library should be opened earlier for VIS only. Another observation is that, no respondents from UEW and UG suggested that the library should open earlier for VIS only. In other words, only respondents from UCC were requesting for the library to open earlier for VIS only.

4.5 Preferred Format of Materials/Equipment/Services

The objective related to research question three was to examine the preferred formats respondents wanted their library resources to be in. Therefore, this section presents the results of research question three with focus on the following: kinds of materials/equipment every public university library should provide for its respondents to meet their information needs, ranking of materials that offer respondents most convenient usage and suggested modification in some of the materials.

With respect to the kinds of materials/equipment every public university library should provide for its respondents to meet their information needs (Multiple responses allowed), 143 responses relating to materials/equipment available at university library in aid of accessing information were listed. Table 4.14 presents seven materials/equipments that respondents felt every public university library should provide for its respondents to meet their information needs and also offer the respondents most convenient usage. As might be expected, the most frequently cited facility that the respondents believed public university libraries should possess was Internet facilities 44 (30.8%). This was followed by a big ICT laboratory 31 (21.7%) and Braille materials/sheets 23 (16.1%). These findings were consistent with expected materials that every public university should poses for its respondents.

4.5.1 Awareness of Types of Materials/Equipment Provided by the Library

Table 4.14: Types Of Materials University Library Provide To Meet Information Needs of Visually Impaired Students

<i>Materials/Equipment</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Braille materials(sheets)	4	2.8	6	4.2	13	9.1	23	16.1
Internet facilities	6	4.2	38	26.6	0	0.0	44	30.8
A big ICT lab for effective training	8	5.6	5	3.5	18	12.6	31	21.7
Brailing of documents	3	2.1	4	2.8	1	0.7	8	5.6
Computers	2	1.4	1	0.7	0	0.0	3	2.1
Digital recorders	8	5.6	0	0.0	0	0.0	8	5.6
Magnifiers	0	0.0	1	0.7	0	0.0	1	0.7
No response/no idea/don't know	7	4.9	15	10.5	3	2.1	25	17.5

Freq = 143 (Multiple response) Field Survey Data, 2016

With respect to the materials/equipment available at university libraries in aid of accessing information from the universities, respondents from UCC frequently mentioned a big ICT lab for effective training and digital recorders and internet facilities in that order among others but never mentioned magnifiers. On the part of UEW, Internet facilities was frequently mentioned compared with the other material/equipments but never talked about digital decoders while a big ICT lab for effective training and Braille materials (sheets) were mentioned most by respondents from UG compared with the other materials, they never mentioned Internet facilities,

computers and magnifiers. In effect, the provision of materials/equipment by public university libraries for their respondents to meet their information needs did not necessarily cut across all the universities; some materials/equipment were common to at least any two of the universities while others were not. This means that as far as the provision of materials/equipments were concerned respondents in one university, for example, would be at a disadvantage and this could affect their information needs.

4.5.1.1 Ranking of the Materials/Equipment

With regard to ranking of material/equipments, respondents were asked to rank in order of preference the materials that their University library provides to meet their information needs. Table 4.15 presents the ranking for six materials in order of preference. The materials which received the highest rankings in order of preference include a big ICT laboratory for effective training, Internet facilities and digital recorders in that order. These materials represent the traditional materials that are generally expected of every university library to provide for its students including the respondents to meet their information needs. The materials which received the lowest rankings in order of preference or concern were; Braille materials (sheets)/equipment, computers and magnifiers.

Table 4.15: Ranking of Facilities that offer Respondents most Convenient Usage

Materials that offer most convenient usage	Rank
A big ICT lab for effective training	1
Internet facilities	2
Digital recorders	3
Braille materials(sheets)/equipment	4
Computers	5
Magnifiers	6

4.5.2 Desired Repackaging of Materials

Apart from listing of materials/equipment available at university library in aid of accessing information and ranking them, respondents were asked if they would want to see some repackaging of some of the materials and if so indicate their suggested modification. It was found that 73 (62.9%) of the respondents suggested some modification to some of the materials as against 43 (37.1%) who said that they would not like to make any modification of the materials. In the case of UCC, and UEW majority of respondents 26 (86.6%) and 41 (68.3%) respectively want to see modification of some of the materials when compared with respondents in the same universities who do not want to make any modification of some of the materials. The story was different at UG; indeed, majority of respondents in UG 20 (76.9) were not interested in suggesting any modification of the materials. Whatever the preferences of the respective respondents were, the results suggest the need to find out which of the materials the respondents would want to see some modifications made. Hence, respondents were asked to list which of the materials they would want some modifications. Table 4.16 presents the findings.

As can be seen from Table 4.16, the 73 respondents who want repackaging of some of the materials are presented. Of these, most 30 (41.1%) of the respondents wanted to see computers modified as computers with JAWs software package, 18 (24.7%) of the respondents would want to see new embossers and 9 (12.3%) would appreciate it if digital recorders were provided while between 1 (1.4%) and 3 (4.1%) of respondents would like to see the rest of the materials listed in Table 4.15 repackaged. With respect to computers with JAWs software, majority of respondents were from UCC

and UEW representing 14 (19.2%) each, and 2 (2.7%) from UG. On modification of embossers, 13 (17.8%) of the respondents were from UEW and wanted to see new and modern embossers while none of the respondents from UG had any intention to have new embossers. For digital decoders, 6 (8.2%) of the respondents who would want to see quality digital decoders were from UCC when compared with UG 2 (2.7%) and UEW 1 (1.4%) who also would like quality digital decoders.

Table 4.16 also shows that not all the materials listed by respondents from each university required repackaging. In UCC for example, provision of Braille materials for notes/handouts, embossment of Braille books, screen modifiers, assistive technology, redesigning of staircase and Internet facilities did not require any modification whereas in UEW all the materials listed in Table 4.16 required some kind of repackaging. With respect to UG, the following materials did not require repackaging since no respondents cited them: provision of Braille materials for notes/handouts, embossment of Braille books, new embossers, screen modifiers, assistive technology and internet facilities. These findings were a manifestation of the quality of the “State of the Art” materials in each of the university libraries.

Table 14.16: Desired provision and repackaging of materials

	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
<i>Materials and modifications</i>								
Conversion of hardcopies to softcopies	1	1.4	1	1.4	1	1.4	3	4.1
Provision of Braille materials for notes/hand outs	0	0.0	1	1.4	0	0.0	1	1.4
Embossment of Braille books	0	0.0	3	4.1	0	0.0	3	4.1
New embossers	5	6.8	13	17.8	0	0.0	18	24.7
Computers with JAWs software	14	19.2	14	19.2	2	2.7	30	41.1
Quality digital recorders	6	8.2	1	1.4	2	2.7	9	12.3
Screen modifiers	0	0.0	1	1.4	0	0.0	1	1.4
Assistive technology	0	0.0	1	1.4	0	0.0	1	1.4
Redesign staircase	0	0.0	2	2.7	1	1.4	3	4.1
Internet facilities	0	0.0	1	1.4	0	0.0	1	1.4
No response/no idea/don't know	0	0.0	3	4.1	0	0.0	3	4.1

Freq = 73 (Multiple response)

Field Survey Data, 2016

4.6 Assessment of Existing Infrastructure in Libraries by Respondents

The main objective of research question four was to examine the available infrastructure in the three public university libraries for respondents. The assumption underlying research question four was that existing infrastructures in the public university libraries should be of special help to the respondents and not pose as challenges. It was found out that majority 83 (71.6%) of respondents indicated that

the existing infrastructures in their university libraries were not of any special help to them as compared with 23 (20.0%) of respondents who felt that the existing infrastructures in their University Libraries were of some special help to them. On the part of the universities, majority 51 (85.0%) of respondents from UEW indicted that the existing infrastructures in their university library were not of any special help to them. This is to be compared with 18 (60.0%) of respondents from UCC and 14 (53.8%) of respondents from UG respectively. On the contrary, 10 (38.5%) of respondents from UG indicated that the existing infrastructures in their university library were of some special help to them, compared with respondents from UCC and UEW. For majority of respondents to declare that the existing infrastructures in their university libraries were not of any special help to them implies that there was the need for the university authorities to re-examine the existing infrastructures in their university libraries with special attention to respondents needs in the library.

4.6.1 Additional Infrastructure Required by Respondents

Another dimension of research question four was to solicit for information on additional infrastructure respondents considered would be of help to them which their university library did not have. The assumption here was that there might have been some infrastructure that would be of great help to the respondents but were unknown to the university authorities. Table 4.16 shows a list of additional infrastructure that respondents considered would be of help to them. Results in Table 4.17 shows 11 additional infrastructure that respondents felt would be helpful to them. Apart from the fact that 46 (39.6%) of the respondents could not tell which additional infrastructure would be of help to them, 19 (16.4%) were of the opinion that provision of an elevator where it was not available or repair of broken down elevator where

available would be of great help to them. Additionally, 17 (14.7%) of the respondents wished that a separate well designed library for respondents would be an ideal infrastructure that would help them. Yet, 11 (9.5%) of respondents indicated that friendly walkways in and outside the library would be of help to them. These additional infrastructures aside, Braille books, assistive technology and a well designed car park at the library were needed to make life comfortable for them

Table 4.17: Additional infrastructure considered helpful by respondents

<i>Additional infrastructure</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Cannot tell	18	15.5	19	16.4	9	7.8	46	39.6
Well designed car park at the library needed	3	2.6	0	0.0	0	0.0	3	2.6
Provision of friendly walkways in and outside the library for VIS	6	5.2	4	3.4	1	0.9	11	9.5
Provision of elevator/repair of broken elevator	1	0.9	4	3.4	14	12.1	19	16.4
Extra wash room	2	1.7	0	0.0	0	0.0	2	1.7
Reading machine	0	0.0	1	0.9	0	0.0	1	0.9
Braille dictionary	0	0.0	1	0.9	0	0.0	1	0.9
Braille books	0	0.0	5	4.3	1	0.9	6	5.2
Assistive technology	0	0.0	5	4.3	1	0.9	6	5.2
Separate well designed library	0	0.0	17	14.7	0	0.0	17	14.7
Computers with JAWs	0	0.0	2	1.7	0	0.0	2	1.7
Tables for Braille books	0	0.0	2	1.7	0	0.0	2	1.7
Total	30	25.9	60	51.7	26	22.4	116	100.0

Field Survey Data, 2016

4.6.2 Challenges posed by Existing Infrastructure

Knowledge of existing infrastructures that were of special help and additional infrastructures considered helpful to respondents which the university libraries did not have alone were not enough. Therefore, the opinion of respondents with regard to the challenges that the existing infrastructures posed to respondents were investigated. Data in Table 4.18 (Multiple responses allowed) showed that various responses were listed as challenges that the existing infrastructures posed to respondents. Respondents frequently indicated no challenge and this constituted 44 (34.9%) while unfriendly environments accounted for 26 (20.6%), followed by story building/staircase 21 (16.7%).

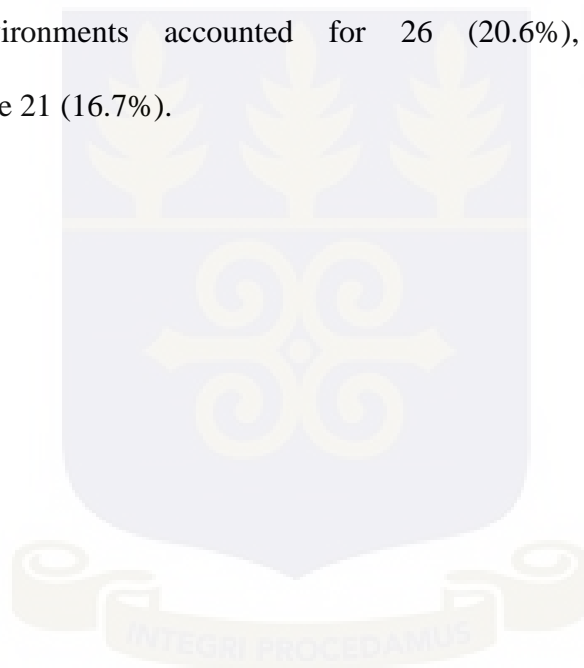


Table 4.18: Existing infrastructures in the University Library that pose challenges to respondents

	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
<i>Existing infrastructure that pose as challenge</i>								
Library car park hinders movement	5	4.0	0	0.0	0	0.0	5	4.0
The story building/staircase	5	4.0	5	4.0	11	8.7	21	16.7
Unfriendly environment	3	2.4	22	17.5	1	0.8	26	20.6
Disable unfriendly library	0	0.0	9	7.1	0	0.0	9	7.1
Photocopying centre	3	2.4	4	3.2	5	4.0	12	9.5
Computers	0	0.0	1	0.8	0	0.0	1	0.8
Recorders	0	0.0	1	0.8	0	0.0	1	0.8
Braille materials	0	0.0	1	0.8	1	0.8	2	1.6
Arrangement of books in the shelves	0	0.0	1	0.8	0	0.0	1	0.8
Assistive technology equipment	0	0.0	4	3.2	0	0.0	4	3.2
No challenge	14	14.3	21	16.7	5	4.0	44	34.9

Freq = 126 (Multiple response)

Field Survey Data, 2016

Other existing infrastructure considered by the respondents as challenges to respondents included photocopying centre, disable unfriendly library, car park in front of library and assistive technology equipment, all together accounted for 30 (23.8%) as evident in Table 4.17. But the challenges that the existing infrastructures posed to respondents varied from one university to another. Table 4.18 shows that whilst a

library car park, 5 (4.0%) was considered by respondents from UCC to hinder movements, both respondents from UEW and UG did not see it as such. Again, while respondents from UEW 9 (7.1%), saw disabled unfriendly library as posing challenge, UCC and UG did not see same as posing challenge to respondents.

4.6.3 Assistive Devices Available in Library

With respect to assistive devices available in the university libraries (Multiple responses allowed), 491 responses were made. Table 4.19 presents nine assistive devices that respondents recommended for their institution/libraries to acquire. In this case, overall, the most frequently mentioned assistive devices included the following: Out of the 491 responses, Braille embosser constituted 103 (21.0%), computers 95 (19.3%), screen readers 86 (17.5%), CCTVs 83 (16.9%), screen magnifiers 65 (13.2%) and scan and read tool 37 (7.5%) respectively. The rest which were less frequently cited included Braille translator, talking books and digital talking book player, together accounted for about 4 percent.

With respect to the universities, Table 4.19 indicates that Braille embosser was more frequently mentioned among respondents from UCC 30 (6.1%) and UEW 56 (11.4%) than that of UG 17 (3.5%). The story is not different with computers being the next most frequently cited assistive device. In terms of proportions, computers were more frequently mentioned by respondents from UEW, followed by UCC and UG in that order. It appears that the frequency of citing each assistive device by the respondents suggests the lack of or unavailability of the assistive devices in each of the three

universities. In other words, where a university lacked a particular assistive device, there was a tendency for respondents to mention it more frequently than where it was adequately available.

Table 4.19: Assistive Devices Available In The University Libraries

<i>Assistive Devices</i>	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Screen Readers	22	4.5	44	9.0	20	4.1	86	17.5
Screen Magnifiers	8	1.6	40	8.1	17	3.5	65	13.2
Scan and Read Tool	10	2.0	18	3.7	9	1.8	37	7.5
Digital Talking Book Player	1	0.2	0	0.0	2	0.4	3	0.6
Talking books	1	0.2	1	0.2	2	0.4	4	0.8
Braille Translator	3	0.6	9	1.8	3	0.6	15	3.1
Computers	30	6.1	46	9.4	19	3.9	95	19.3
Braille Embosser	30	6.1	56	11.4	17	3.5	103	21.0
CCTV	27	5.5	37	7.5	19	3.9	83	16.9

Freq = 491(Multiple response) Field Survey Data, 2016

4.6.4 Assistive Devices Recommended by Respondents

This study was also interested in finding out which of the assistive devices the respondents would like to recommend for their institution/library to acquire. In response to this issue, 821 responses related to 10 assistive devices that respondents would like their institution/library to acquire were ascertained. It can be seen from Table 4.20 that Talking books, Braille Translator and Digital Talking Book Player all together accounted for a total of 307 (37.4%) of the total responses while scan and

read tool, screen magnifiers, screen readers and Braille embosser accounted for a total of 349 (42.5%) whereas computers and CCTV represented 158 (19.2%) of responses to assistive devices the respondents would like to recommend for their institution/library to acquire.

Table 4.20: Assistive devices respondents recommend their institution/library to acquire

	U.C.C		U.E.W		UG		Total	
	<i>Freq</i>	%	<i>Freq</i>	%	<i>Freq</i>	%	<i>Freq</i>	%
<i>Assistive devices</i>								
Screen Readers	16	1.9	48	5.8	19	2.3	83	10.1
Screen Magnifiers	26	3.2	46	5.6	19	2.3	91	11.1
Scan and Read Tool	26	3.2	46	5.6	21	2.6	93	11.3
Digital Talking Book Player	30	3.7	48	5.8	22	2.7	100	12.2
Talking books	30	3.7	54	6.6	22	2.7	106	12.9
Braille Translator	28	3.4	51	6.2	22	2.7	101	12.3
Computers	13	1.6	48	5.8	19	2.3	80	9.7
Braille Embosser	15	1.8	49	6.0	18	2.2	82	10.0
CCTV	13	1.6	46	5.6	19	2.3	78	9.5
No idea	1	0.1	5	0.6	1	0.1	7	0.9

Freq = 821 (Multiple responses)

Field Survey Data, 2016

As expected, data in Table 4.20 clearly shows that there are variations in terms of proportions among the three universities regarding the assistive devices respondents would like to recommend for their institution/library to acquire. For instance, respondents in UCC recommend at least top- five assistive devices including Digital

Talking Book player, Talking books, Braille Translator, screen magnifiers and Scan and Read Tool. In the case of UEW, Talking books, Braille Translator, Braille embosser, computers, Screen Readers and Digital Talking Book player were the first six assistive devices to that respondents recommended while respondents in UG recommended at least, first four assistive devices including Digital Talking Book, Talking books, Braille Translator and Scan and Read Tool. From the recommended list of assistive devices across the three universities, one can deduce that respondents in the three universities had assistive devices in common which they recommended for their institution/library to acquire. They are: Digital Talking Book players, Talking books and Braille Translators.

4.7 Findings from Interviews of University Librarians

4.7.1 Challenges Faced by Libraries in Service Provision to VIS

Public university libraries as any human institution are confronted with challenges of some sort. It is on this conviction that objective five of this study sought to investigate the challenges public university libraries face in providing library services to visually impaired students. In doing this, it is instructive to state that the librarians of the three public universities under study were the main source of information through a face-to-face interview the researcher had with them at their respective libraries at different times. The first to be contacted for the interview was the UCC librarian, followed by UEW and UG librarians; therefore the presentation of their respective responses has been presented in that order. Responses from the three Librarians revealed finance, infrastructure, resource persons, and assistive technologies as four main challenges that public university libraries grapple with in rendering services for the VIS.

4.7.2 Finance as a challenge

In addressing themselves to a question as to whether their respective libraries had the capacity to provide library services to the VIS, all the three librarians cited finance as the greatest challenge the libraries face.

4.7.2.1 UCC Librarian's Response

The UCC librarian said 'YES... to a greater extent ...' He went on to explain that provision of effective library services to VIS is inseparably linked with individual VIS having digital recorders that would enable them capture information, including lecture notes. In this regard according to him, each year, in their budget preparation, the library makes provision for procurement of essential equipment/materials, including digital recorders for use by VIS to record lectures for subsequent transcribing into Braille. However, he said the library was faced with persistent challenge of getting the Directorate of Finance releasing funds for the procurement of digital recorders for keeps by the VIS. This was what he said:

"...we do in our yearly budget planning make provision for the VIS for the Resource Centre for students with disabilities...the budget covers buying of embossing machines, computers, renewal of soft ware package, voice recorders...the voice recorders are part of the facility the library is suppose to give to the VIS from Level 100 to final year, once they register ... but we (the library) have had some problem with the Directorate of Finance... they queried why we should provide those facilities...but we feel it is one facility that VIS would need..."

4.7.2.2 Response by UEW Librarian

On his part the Librarian responded indicating that, the university library is not equipped with the much needed assistive technology equipment to be able to render corresponding services to the VIS. According to him, the library only renders photocopying and lending services to the VIS. A follow up question was posed to him

as to whether the library had a special budget line to acquire assistive technology equipments and other materials. His first response was “... *we don't have special budget line... we see the VIS as any other student and therefore do not have any special budget for them.*” He indicated that the library has taken up the “challenge” to procure the necessary assistive technology equipments, and added that “... *it was in my vision statement to get these equipments and we (the library) are pursuing that.*”

Following from his response, he was asked to indicate when his vision would be actualised. He responded by saying that “...*necessary steps have been taken and the Procurement Office is working on it; latest by June next academic year (2017).*”

Concluding, he remarked, “... *it is a shame that all this while the UEW library has no equipment in place.*”

4.7.2.3 Response by UG Librarian

The Librarian responded that the library has the capacity to provide services to the VIS, however, with respect to their budget; the librarian indicated that the library is faced with the challenge of funding. According to him:

“... the university keeps slashing budget we (the library) submit to the administration, especially now that the university has created an office for the disabled, and provision of furniture, air conditioners, furnishing and others are the responsibility of the university... aside that, equipments and machines are the direct responsibility of the office for disabilities...”

Speaking to the issue of financial challenge, he explained that because the Office for the Disabled, including VIS, is placed under the administrative control of the main central administration of the university, the library is suffocated by budget cut every year and this has incapacitated the library in the timely procurement of the needed equipments to provide library services to the VIS.

4.7.3 Infrastructure as a Challenge

The purpose of the Disability Act, 2006 (Act 715) is to fight and protect the rights of people who are living with disability, to make sure they enjoy their rights, as enshrined in the 1992 Constitution of Ghana. Therefore as part of action by parliament to ensure that the disabled, including the visually impaired do not suffer exclusion from visiting or accessing services at public buildings it is now a government policy that all public buildings be designed to make them disability friendly. The interviews conducted with the three librarians show infrastructure as one of the challenges the public university libraries face in their service to the visually impaired.

4.7.3.1 Infrastructural challenge of UCC Library

The Librarian talked on the infrastructural position of the UCC library and indicated that the library has a Resource Centre that provides the normal Braille tablets, CCTV for the partially blind students which enlarges the characters for them to be able to read, computers which the library has installed JAWs software package together with embossing machine. However, commenting on improving library service delivery to the VIS, the librarian pointed out the challenge the library is faced with regard to infrastructure and said “...*the point is, most of these structures are old and were designed without having in mind students with disabilities and the need for necessary support services for them.*”

He went on to give a graphic presentation of how he would have wished to see the location and design of the physical structure of the library as a solution to the

infrastructural challenge the library is faced with. This is what he said “...*looking at where we (the library) have the Resource Centers, the best located one is the one for the students with physical disability because the way the frontage slope was designed allows the physically disabled to easily come in with their wheel chairs... but with the VIS where the Resource Centre is located, in my candid opinion, was wrong, because it should have been at the ground floor of the library and not at the lower ground floor where the Centre is currently located...that would have made it easier for them to navigate their way through*”. He conceded that even though the library has installed an elevator in the library building to service the VIS, the challenge still lingers on due to frequent break down of the elevator and rampant electricity failures that render the facility non functional.

4.7.3.2 Infrastructural Challenge of UEW

On the part of UEW, the Librarian saw infrastructure as another worrying challenge facing the library in library service provision to VIS. He said the UEW library building was not visually impairment friendly and that VIS were compelled to seek assistance from their abled colleagues to enter, while others resorted to the use of their white canes to navigate their way in the library. He added that the design and construction of the stair-case to the library was also of much concern to the authorities of the library since, according to him “... it was not in compliance with the Disability Act (2006), Act 715”.

4.7.3.3 Infrastructural Challenge of UG

The Librarian indicated that the challenge the library faced in service provision to the VIS in respect of infrastructure had to do with the space in the library building which tended to retrain easy navigation by the VIS when they were in the library to access information.

4.7.4 Resource Persons as a Challenge

The services of Resource Persons were seen as an integral part of the VIS in their pursuit for higher academic laurels, and they are undoubtedly seen as the pivot around which mainstream education revolves. Therefore, this important human resource has been identified as one of the challenges libraries are encountering in their service delivery to the VIS.

4.7.4.1 Response from UCC Librarian

According to the Librarian, the recruitment of Resource Persons with the requisite skills and knowledge in the use of assistive technologies had become a challenge. The librarian saw it as a challenge because it required qualified resource persons to deliver efficient and effective library services to students, particularly, the VIS. He was also of a firm conviction that a Resource Person is a specialist who offers educational assistance to students, including VIS, and therefore, their services cannot be dispensed off.

4.7.4.2 Response of UEW Librarian

From the interview held with the UEW Librarian, it revealed that some of the library staff were to be trained in the use of the assistive technology devices only when they had taken delivery of the equipments. He said; *the university will train at least five persons who will in turn train others when we take delivery of the assistive technology equipments.* In addition to training people to become resource persons to handle assistive technology, the librarian emphasised on the need for library professionals to have basic knowledge the special needs of persons with disabilities, to enable the library professionals attend to them appropriately. This assertion was shared by the UCC Librarian.

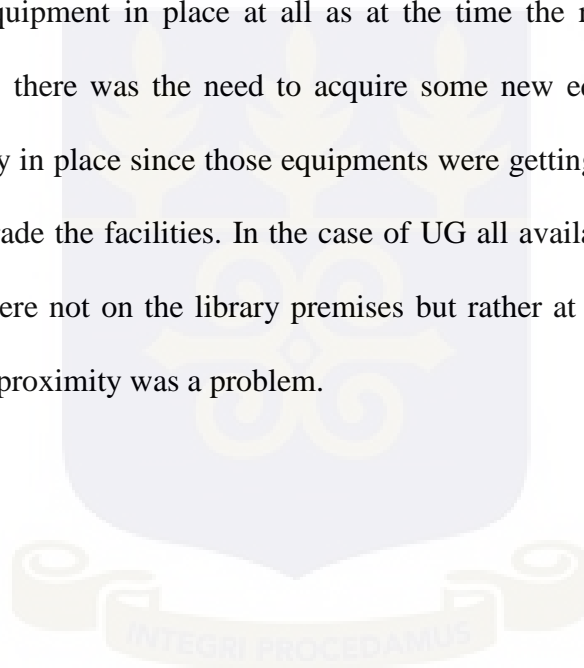
4.7.4.3 Response of UG Librarian

From the interview with the UG librarian, the resource persons challenge that the library face in service provision to VIS finds expression in the fact that the resource persons at the library were under the direct administrative control of the university central administration. The working time of these resource persons was therefore dictated by the central administration, which according to the librarian, was at variance with the normal closing time of the library. This did not allow the library to compel the resource persons to extend their closing time from 5pm to 10pm when the library closes. The interview revealed that the visually impaired section of the library closed at 5pm each day while the main sections of the library remained open to abled persons until 10pm. This situation did not promote inclusive education and therefore, it was in contrast to the view shared by Gwala (2006) that; inclusive education was concerned with removing all barriers to learning, and with the participation of all

learners vulnerable to exclusion and marginalisation. It addresses the common goals of decreasing and overcoming all exclusion from human right to education, at least at the elementary level, and enhancing access, participation and learning success in quality basic education for all.

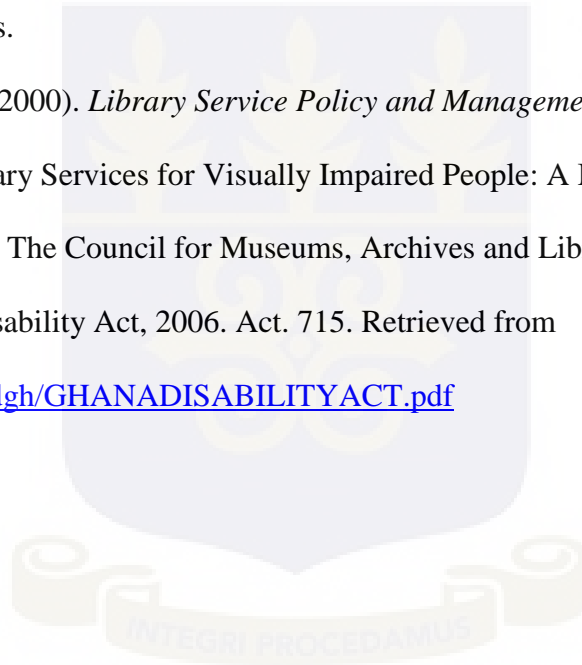
4.7.5 Assistive Technologies as a Challenge

This was a challenge to all the three libraries especially the UEW library which did not have any equipment in place at all as at the time the researcher visited. With respect to UCC, there was the need to acquire some new equipment in addition to what was already in place since those equipments were getting old and also there was the need to upgrade the facilities. In the case of UG all available assistive devices in the university were not on the library premises but rather at the Office of Disability Services so that proximity was a problem.



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CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter is devoted to the discussion of the findings in relation to the various objectives and research questions outlined in chapter one of the study. The discussion begins with the background characteristics of the respondents; kinds of library services available for visually impaired students in the public universities; adequacy of services being provided by the public universities for visually impaired students; packaging of materials, services and equipment visually impaired students prefer the public libraries to provide; existing infrastructures in the public university libraries for visually impaired students and finally, challenges public university libraries face in rendering library services for visually impaired students.

5.2 Background characteristics of respondents

Of the 116 visually impaired students (VIS) covered in the study across three public universities; UCC, UEW, and UG, there were more males 100 (86.2%) than females 16 (13.8%). This is a manifestation of a perception gaining currency that in most institutions of higher learning or organisations, the three public universities under study not exception, male dominance is common in almost every field. Additionally, the majority 86 (74%) of the VIS were pursuing Bachelor of Education courses. Also, about 85 percent had on-campus residential status and, of these, 79 (79.8%) resided in the traditional halls of residence. These findings do not only reflect the public universities in Ghana's admission policies which commit the universities not to discriminate in admitting persons with disability, including VIS, but are also to a large

extent consistent with the United Nations (2016) position on education as a fundamental human right for all people.

The list of programmes of study pursued by the respondents indicates that none of the respondents was pursuing science-related programme of study. This was expected since it is normal that science-related programmes essentially involve taking measurements, conducting experiments, and others that require the use of one's sight as much as possible. This seems to suggest that persons with visual impairment, to some extent, are at disadvantage in pursuing certain programmes of study; probably this may be the reason why none of the respondents was found pursuing science-related programme. The finding confirms the assertion by Peters (2004) that in majority of countries, there is a dramatic difference in educational opportunities provided for disabled children (persons) and for those provided for non-able children (persons).

5.3 Kinds of Library Services Available for Visually Impaired Students in the Public Universities

The first objective sought to examine the kinds of library services available for VIS in the public universities. It was necessary to first find out whether the VIS knew or were aware of the kinds of services available to them. To this effect respondents were asked whether they knew the kind of library services available to them in their respective universities.

The study found that 70 (60.3%) of the VIS did not know the kind of library services available for the Visually Impaired Students in their respective universities; at the university level, 13 (43.3 %) of the VIS from UCC and 57 (95.0%) from UEW did not know the kind of library services available for the visually impaired students in their respective universities while all the VIS from UG knew the kind of library services available for the visually impaired students. However, 42 (36.2%) had knowledge of the kind of library services available for the visually impaired students. Some of the notable library services known to the VIS were computer literacy, Braille documentation, assistive technology, technical assistance, collection of examination scripts and information search in order of frequency of occurrence.

The high percentage of respondents who said they did not know the kind of services available, particularly those from UEW, may reflect of low awareness creation services to VIS in that university, which has the tendency of depriving them of the benefits of the use of library services for their academic work. This is supported by Alemna (), who says that ... *"where facilities and materials are available for the blind, they should be adequately published and that publicity would be the best means of attracting this group to the library"*. The implication is that because they were not aware of the existing services the university library provided for VIS the tendency was that they may not visit the library to search for exiting information for their academic use. This can lead to substantial delay on the part of the VIS in submitting assignments on time, as against their sighted colleagues who were likely to submit assignments on time. A follow up question was posed to find out from them whether, on their admission to the university, special library orientation was organised by their

respective libraries for them. The study revealed that 93 (80.2%) of the VIS claimed that no special library orientation was organised for the visually impaired students.

The essence of special orientation for the VIS, among other things, is to introduce them to the physical environment of the library; both outside the library structure and within the library space with the aim of initiating them to the kind of library services and resources available as well as directional signs that will help them navigate their way in the library. In the words of Hopkins (2000) it is worthy of note that the physical environment of the library is also paramount to the access of library services by the visually impaired. He stressed the importance of design features such as using contrasting colour schemes for the walls, floor and furniture to design an environment as paramount to the effective and efficient patronage of library services for the visually impaired.

With respect to the use of the library for academic work, 58 (50.0%) of the VIS used the Library for academic work, while the other 58 (50.0%) did not use the library for academic work. With reference to non use of the library for academic work, the reasons in order of frequency of occurrence are: library not user friendly, non-availability of technical services, non availability of ICT equipment and not knowing the direction to the library. However, library not being user friendly was encountered more frequently among VIS in UEW compared with VIS in UCC and VIS in UG who did not give any reason.

The high percentage response of non-use of the library for academic work by the VIS from UEW was influenced by the fact that the university library offered limited library services to the VIS. Only book lending and photocopying services were rendered to the VIS and this had the tendency to deny the VIS independent studies since they would be depending on their sighted colleagues, most of the times, for certain help like reading out printed materials for them. The Social Model of Disability (SMD) rests on the recognition that people are disabled by social barriers. The Model postulates that disability is caused by the way society is organised, rather than by a person's impairment or difference. It looks at ways of removing barriers that restricts life choices of disabled people. According to the proponent of the Model, Oliver (1990), when the barriers are removed, disabled people can be independently equal in society, with choice over their own lives.

With respect to VIS seeking help from Student Guides in accessing library services, majority, 77 (66.4%) of the VIS did not seek help from Student Guides. In particular, 26 (100.0%), 41 (68.3%) and 13 (43.3%) of VIS from UG, UEW and UCC respectively did not seek help. The finding in respect of the response made by the VIS from UG confirms what the President of the Association of VIS at UG had earlier told the researcher when the President was contacted by the researcher to assist her get in touch with Student Guides for the VIS. The President told the researcher that VIS in UG do not use Student Guides. Seventeen (56.7%) of the VIS from UCC sought help from Student Guides in accessing library service for the following reasons in order of frequency of occurrence: Student Guides appreciate academic needs of VIS, Library Assistants not enough to attend to VIS, Student Guides are more friendly and accommodating than Library Assistants, Library Assistants not patient enough to

accommodate the VIS, and Library Assistants not readily available to respond to requests from the VIS. Most of the VIS received assistance from Library Assistants and Resource Persons in accessing library services while the proportion of VIS who received assistance from Library Assistants and Resource Persons was higher in UG and UCC respectively. The reasons for seeking assistance from Resource Persons were: Brailing of documents, computer literacy training, assistance of guides and auxiliary service. Others include traditional library services, embossment of Braille materials for use and conversion of hardcopy documents into soft copy documents. The Resource Persons' responses confirmed the above services they provide to the VIS. Brailing of documents as a first assistance VIS received from Resource Persons was expected since it has been contended that a person is said to be blind if he/she cannot read and write print after all optical corrective measures have been taken and that he/ she consequently uses Braille as a medium of reading and writing (Abosi and Ozoji, 1985).

As evident from the results of the study, majority of VIS responded that they did not seek help from Student Guides. This is consistent with the observation made by Mercer, Mercer and Pullen (2010) that, like anyone with disability, the person who is visually impaired wants to be treated like anyone else. Most people who are visually impaired do not seek pity or unnecessary help; in fact they can be fiercely protective of their independence.

5.4 Adequacy of Library Service Provision to Respondents

Majority, 76 (65.5%) of the VIS reported that the kind of library services university libraries provided to the visually impaired students are inadequate. This was more talked about by VIS in UEW when compared to VIS from UCC and UG. The Librarian at UEW lent support to the views expressed by the VIS at UEW.

To support the need for assistive technology equipment for use by VIS, Kapoor (2012) has observed that assistive technology has revolutionised the lives of visually impaired persons in many countries giving them equal access to services and public places. According to him not only has it given access to computers and all its advantages but also has led to the advancement of several special devices which together have gone a long way in overcoming the difficulties faced by the visually impaired. Therefore, the demand for assistive technology equipment as suggested by VIS cannot be overemphasised.

Other services that VIS expect the university libraries to provide for visually impaired students but not being provided include assistive technology, provision of infrastructure/equipment/materials, provision of resource persons and auxiliary services while most of the VIS suggested that the library extended opening hours to all students, including libraries in the traditional halls of residence and that the libraries should be opened earlier for VIS only.

5.5 Preferred Format of Materials, Services and Equipments

The study sought the views of the VIS on the kind of format in terms of materials, services and equipment they preferred the public university libraries to provide. In the words of the President of the VIS Association of UCC, VIS prefer more Braille embossers to aid in faster provision of Braille notes.

With respect to the types of materials/equipment university library provide VIS to meet their information needs, the types of materials/equipment are arranged in order of preference: a big ICT lab for effective training, internet facilities, digital recorders Braille materials (sheets)/Brailing equipment, computers and magnifiers.

As regard facilities and modification to be made, out of 10 facilities listed, 3 were frequently mentioned and these are: computers with JAWs software, new embossers and quality digital recorders. While other materials that require modification but were least cited are: provision of Braille materials for notes/handouts, conversion of hardcopies to softcopies and embossment of Braille books. The rest include new embossers, screen modifiers, assistive technology and internet facilities. The findings from this study lend support to Michelle's (1996) assertion that "the ideal library service is one where each individual, regardless of the degree of visual impairment, has access to the materials and information at the time they are required, in a format that can be used, in the quantities that are needed, and where the needs of the user are understood by the staff". Again, as the President of the VIS Association puts it;

Reference materials should be in Braille so that members can have access to utilise them.

5.6 Existing Infrastructures in the Public University Libraries for Visually Impaired Students

It is common knowledge that, library facilities in some public libraries, including public academic institutions, were constructed or designed with very little or no attention or consideration to the needs of handicapped persons, including visually impaired students. This limits their access to information in the libraries which ultimately affects their information seeking behaviour. Information behaviour, in the words of Wilson (2000); “are those activities a person may engage in when identifying his or her own needs for information searching for such information in any way, and using or transferring that information”. Accordingly, the study sought to know whether the existing infrastructures in the public university libraries for visually impaired students, by their design or construction, limit their access to information or information searching in their respective university libraries. When asked about existing infrastructures at the library that are friendly to the members of the Association, the President of the Association mentioned computers, embossers and the Braille machine. These were found to be the same as what the VIS themselves also mentioned.

The study found that majority 15 (65.2%) of VIS could not tell how the existing infrastructures were of special help to them; On institutional basis, VIS from UCC 4 (17.4%), UEW 2 (8.7%) and UG 9 (39.1%) respectively could not list any existing infrastructure that were of any help to them. However, they chose to restate the

existing infrastructures that are of special help to them instead of stating how such structures help them. In this case, resource centre, materials in accessible form, embossers and Braille machines were of special help to the VIS in only UCC while UEW and UG did not indicate whether or not such materials were of any help to VIS in their respective universities. Similarly, most VIS could not tell any additional infrastructures that will be of great help to the VIS that were unknown to the university authorities. Many of the VIS from UCC compared with UEW and UG could not indicate any additional infrastructure. However, out of 11 additional infrastructures listed by the VIS, the most frequently additional infrastructure cited was provision of elevator/repair of broken down elevator. This was frequently indicated by most of the VIS from UG when compared with UCC and UEW.

Other additional infrastructures listed included well designed library, provision of friendly walkways in and outside the library for VIS and assistive technology. The rest were: Well designed car parks in front of the library, computers with JAWs software, tables for Braille books, extra wash room, reading machine and Braille dictionary, even though most of the VIS could not list any existing infrastructure that had been of help to them. This lends support to Wei, Lirong, Li and Zhao (2012) who investigated the provision of library resources for visually impaired students in the further education sector in England, Scotland and Wales and their awareness of the Special Educational Needs and Disability Act 2001. It was found out that the Act had affected each library differently. Some libraries were better equipped to implement the requirements of the Act due to the resources already in place; while some had the positive attitudes of senior management encouraging advancements in this area and having previous experience in assisting visually impaired students.

With regard to the challenges that the existing infrastructures posed to respondents, they frequently indicated that there were no challenges. On the contrary, some also indicated unfriendly environment, story building/staircase, photocopying centre, disable unfriendly library, car park in front of library and assistive technology equipment as challenges. At UCC, computers, recorders, disable unfriendly library, Braille materials, arrangement of books on the shelves and assistive technology equipment were not seen as posing challenges to respondents while at UEW; it was only the car park in front of the library which was not posing as a challenge to them. However, at UG, the car park in front of the library made movement a problem. Disable unfriendly library, computers, recorders, arrangement of books on the shelves and assistive technology equipment were also challenges to respondents.

The assistive devices available in the university library that respondents would recommend for their institution/library to acquire (arranged in order of frequency of listing) were: digital talking book player, talking books and Braille translators. Others were: scan and read tool, screen magnifiers, screen readers and Braille embosser while the rest which were less frequently cited included computers and CCTVs.

The above finding supports the views shared by Wilson (2000) that the library facilities in some public libraries, including public academic institutions were constructed with very little or no consideration of the needs of handicapped persons, including visually impaired students, and thus can limit their access to information seeking in the libraries. This is consistent with the responses given by respondents from UG when they said that the unfriendly design of the car park in front of the

library and walkways made movement difficult. They also raised issues on the disable unfriendly design and construction of the library building as well as some equipments and arrangement of materials in the library that tended to limit their information behaviour in the library.

Again the list of materials and equipments cited by the respondents in their responses were; assistive technology equipments and this confirms assertion made by Kapoor (2012) to the effect that, in the case of the visually impaired, it is often the use of assistive technologies, that ensured their equal participation in many social activities ranging from meetings and entertainment to the more personal activities of reading books, accessing information or enjoying recreational activities.

5.7 Challenges Faced by Libraries in Service Provision to VIS

The fifth objective of the study sought to examine the challenges librarians faced in responding to the needs of visually impaired students. The librarians of the three public university libraries under study were the main source from whom information was collected by the researcher through separate face-to-face structured interviews held with them. At the end of the interviews four challenges were mentioned by the librarians to include finance, infrastructure, resource persons and assistive technologies. They cited finance as the greatest challenge facing the libraries in providing library services to the visually impaired students. The submissions of the three librarians to the effect that finance was their greatest challenge was found to lend support to the views shared by Hopkins (2002) which states that in most libraries

library provision of library services to the visually impaired is constrained by inadequate financial support that would be helpful to visually impaired persons. Again, their submission can be related to MacDonald's (1996) assertion that financial constraints is understandably the greatest impairment to the changing of the physical appearance of a library for the benefit of the disabled.

5.7.1 Finance

On the part of the Librarian for UCC library, in addition to other equipment and materials needed, the library includes in its yearly budget to provide digital recorder for use by visually impaired students. The budget is then submitted to the central administration of the university to which the library requests for funds to procure equipments to service the visually impaired students. The study revealed that the Directorate of Finance of the university has been querying the library for the provision of digital recorders to the visually impaired students at cost to the university each year. The findings show that apart from using the digital recorders for capturing lecture notes which were later brailled, the VIS used the recorders to store information read to them by their sighted colleagues from print materials.

Though the Directorate of Finance may have a genuine reason for querying the library for its expenditure on digital recorders, considering the importance of a digital recorder as a facility in the provision of library service to the visually impaired students in pursuit of their academic work, one would expect the Directorate of Finance to understand that the library in providing digital recorders to the visually

impaired was only helping to discharge its service obligation to the visually impaired students.

On the part of UG, the study revealed that the financial challenge to the library was as a result of the creation of an Office for Disability Services by the central administration of the university that took over the responsibility of providing library equipments and materials from the library resulting in cutting down the budget of the library by the university's central administration. The university, for prudent financial control and effective management system may decide at any time to create a new Unit or Section out of an existing Department which the study found to have been done. However, as in the case of the UG library, if the creation of the office for Disabled Services turns out to provide uncomplimentary support service to enable the library provide effective and efficient library service to the disabled, including the visually impaired, then the central administration of the university should understand that not only has it failed in creating the office for Disabled Services but has also betrayed the cause of the library in providing library services to the visually impaired students.

5.7.2 Infrastructure

Concerning infrastructural challenge facing the libraries in providing library services to the visually impaired, the study revealed that the UCC Resource Center for the visually impaired students was wrongly located on the lower ground floor of the main library building instead of being at the ground floor which would have made it easier for the visually impaired to trace their way in and out of the library. The study also

found that the UCC library has an elevator facility for use by the visually impaired students, but because of frequent break down of the elevator coupled with frequent power failure the visually impaired are not having the full benefit of the facility. It must be appreciated that if due consideration was taken in locating the Resource Centre at the ground floor of the library building, at least, it would have saved the university a fortune; not only the cost of the elevator but also the cost of installation, recurrent expenditure on maintenance, and the cost of electricity to power the elevator.

The study showed that UEW library building was not visually impaired friendly and due to that visually impaired students were compelled to seek assistance from their sighted colleagues to access the building. This does not lend support to the observation made by Mercer, Mercer & Pullen (2010) that, like anyone with disability, the person who is visually impaired wants to be treated like anyone else. Most people who are visually impaired do not seek pity or unnecessary help; in fact they can be fiercely protective of their independence.

For UG, the study showed that the interior library space was not spacious enough to allow easy navigation by the visually impaired students. UG library had a challenge relating to space area in the library which posed navigation problem for the visually impaired students. Indeed regarding design, construction and placing of a Resource Centre for the visually impaired students at UG, the study shows that all the three public university libraries fall foul to the government policy that all public buildings be designed to make them disabled friendly.

5.7.3 Resource Persons

Service of Resource Persons, according to Morsink (1984), is the pivot around which mainstream education revolves. Regrettably the study found that one of the challenges facing the libraries in providing library services to the visually impaired was Resource Persons. The study revealed that with UEW the library did not have Resource Persons as the library. Because the necessary assistive technology equipment and materials in place the library had no Resource Persons to provide service to the visually impaired students. UCC and UG libraries had Resource Persons but they are not under the administration of their respective library management. They are under the administrative control of the central administration of their respective universities. The working hours of staff under the central administration is from 8am-5pm, while library staff of the two universities work from 8am to 10pm. Resource Persons assigned by the central administration to the libraries therefore close at 5pm. In the case of UG library when the Resource Persons close at 5pm the library is compelled to close the Visually Impaired Section of the library while the remaining Sections of the library for able-bodied students remained opened till 10pm. This does not promote inclusive education and it is found to be in contrast to the view shared by Gwala (2006); that “inclusive education is concerned with removing all barriers to learning, and with the participation of all learners vulnerable to exclusion and marginalization”.

In the case of UCC library, the study found that when the Resource Persons close at 5pm the library administration has put in place measures for the Library Assistants to fill the gap and provide library services to the visually impaired to prevent the

Resource Centre for the visually impaired from closing until 10pm when the library closes to all library users.

Examining the situation as the study has revealed, the UEW library which from the study, has the largest visually impaired student population (60) among the three public university libraries under study cannot reasonably justify running academic programme of studies for visually impaired students since the library has no resource persons in place and lack the necessary equipments to provide required library services to the visually impaired students. In fact, the visually impaired students at UEW as compared to their colleague visually impaired students in the two other universities under study can be described to be pursuing their course of studies under unacceptable conditions. Again for the UEW library to wait until the library takes delivery of the assistive technology equipments before training five resource persons is against the basic principles of human resource development; which is on developing the individual against future task. Here, the UEW is tasked to develop the skills, competences and aptitude of the five persons in view well before the library takes delivery of equipments in June next academic year (2017).

The challenge that UCC and UG libraries face when it comes to Resource Persons is an institutional one and the visually impaired students, particularly those at UG, cannot continue to suffer in silence under exclusive education where the library is closed to them for reasons of differences in working hours between the library and the central administration, while their able bodied colleagues enjoy the services from the same library.

5.7.4 Assistive Technology

This was a challenge to all the three libraries, especially, the UEW library which did not have any assistive technology equipments in place. With respect to UCC, the library had the equipment but there was the need to acquire new equipment in addition to what was already in place since that equipment was being phased out of the system. In the case of UG, the study found that all the available assistive devices in the university were not housed on the library premises but rather at the Office of Disability Services creating some discomfort to the visually impaired students arising out of proximity reason.



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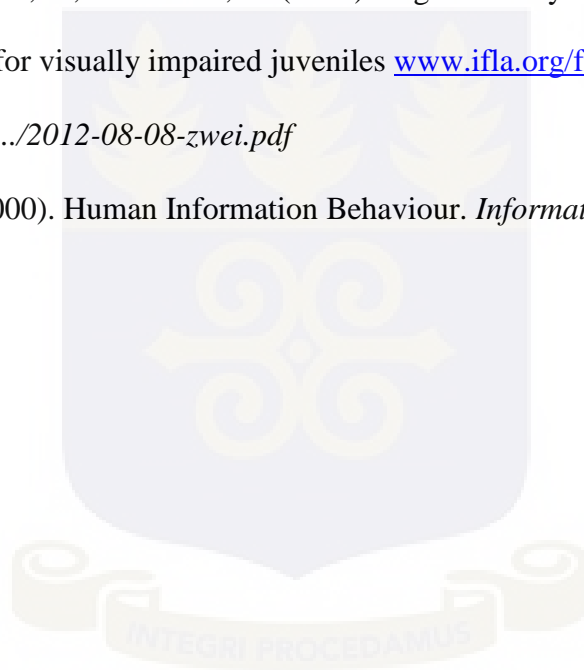
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CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary drawn from the findings, conclusion and recommendations of the study.

6.2 Summary of findings

The study examined the kinds of library services available to visually impaired students in public universities. Three public university libraries were selected for the study: the University of Cape Coast Library, University of Education, Winneba Library and University of Ghana Library.

6.2.1 Personal Details of Visually Impaired Students

The results underscore the fact that there were more males than females in the study sample and more VIS pursuing B.Ed. programme and studying at levels 100 to 400 and then 600. Majority of the VIS resided in the traditional halls of residence. The VIS have done very well since a lot of them have taken advantage of the opportunity provided them by the three universities to at least justify their inclusion in various fields of human endeavor. In this study however, none of the VIS was perusing any of the Physical Sciences. This remains a gargantuan challenge to the VIS at the tertiary levels of education.

6.2.2 Kinds of Library Services Available for Visually Impaired Students in the Public Universities

Most of the VIS did not know the kind of library services available for the Visually Impaired Students in their respective universities. This argument can further be supported by evidence with respect to the services known by the VIS from each university in that there are variations in the services available for the Visually Impaired Students in the three public universities. Some services are available in one or two universities and absent in another university. However, the services available are in most cases the traditional library services including computer literacy, Braille documentation, assistive technology, technical assistance, collection of examination scripts and information search.

6.2.3 Adequacy of Services Being Provided By the Public University Libraries for Visually Impaired Students

While most of the VIS claimed no special library orientation was organised for the Visually Impaired Students, a general orientation was organised for all freshers including the VIS. However, some VIS did not take part because of feeling of exclusiveness, time constraints, and late admission and or not being around. Most of the VIS were of the view that special library orientation for the Visually Impaired is preferred by the VIS to a general orientation organised by the university for all freshers.

Based on the fact that majority of VIS use the library for academic work, attention should be given to ensuring that the information needs of VIS meet their expectation. Also, if the kinds of library services they accessed for academic work fall short of VIS expectation, it may greatly affect access to and effective and efficient use of the library services for academic work. Seasoned resource persons and qualified library assistants will attract more VIS to access library services for academic work all things being equal. However, the following kinds of library services if offered well will motivate VIS to access library services for academic work: traditional library services, computer literacy, resource persons ICT centre services, writing of quizzes/assignments/exams, assistive technology and embossing of work. However, some VIS did not access or use library services for academic work because of the following reasons: library not user friendly (exclusives), non-availability of technical services, and non availability of ICT equipment.

While seeking help from Library Assistants and Resource Persons is essential in rendering library services to VIS, their numbers and for that matter assistance may be inadequate to handle the information needs and requirements of VIS in their respective universities. For instance, as the numbers of VIS increase there will be more stress on the limited number of resource persons and staff and that will make assistance to VIS quite significant.

VIS had a variety of reasons for seeking help from Student Guides in accessing library services; they were: Student Guides appreciate academic needs of VIS, Library Assistants not enough to attend to VIS, Student Guides are more friendly and

accommodating than Library Assistants, Library Assistants not patient enough to accommodate the VIS and Library Assistants not readily available to respond to request from the VIS. Similarly, VIS had a variety of reasons for seeking help from Resource Persons. The reasons for receiving assistance from Resource Persons were: Brailing of documents, computer literacy, assistance of guides and auxiliary service. Others were: Traditional library services, embossment of Braille materials for use and conversion of hardcopy documents into soft copy and, scanning hard copies to soft copies and assistance of resource persons.

Majority of the VIS thought that library services, including assistive technology, provision of infrastructure/equipment/materials, compatible format, provision of resource persons and auxiliary services as well as opening hours that the University Library provided for the Visually Impaired Students were inadequate. Hence, their intention to recommend extension of time to include library to extent hours to all students, library to extend library service to VIS to include traditional halls of residence and library to open earlier for VIS only.

6.2.4 Format in Terms of Materials, Services and Equipment Visually Impaired Students Prefer the Public University Libraries to Provide

With respect to the kinds of materials/equipment every public university library should provide for its VIS to meet their information needs, VIS were interested in the following (Ranking): a big ICT lab for effective training (1), internet facilities (2), digital recorders (3) as well as Brailing of equipment and Braille materials(sheets (4),

computers (5) and magnifiers (6). In some cases, there was convergence and divergence among the VIS in the three universities. However, they thought that these kinds of materials/equipment required some modification in the following forms: computers with JAWs software, new embossers and quality digital recorders. They also preferred the provision of Braille materials for notes/handouts, conversion of hardcopies in most to softcopies and embossment of Braille books, as well as new embossers, screen magnifiers, assistive technology and Internet facilities.

6.2.5 Existing Infrastructures in the Public University Libraries for Visually Impaired Students

While majority of VIS could not tell how the existing infrastructures were of special help to them, those who were able to indicate merely restated the existing infrastructures (resource centre, materials in accessible form, embossers and Braille machine) that were of special help to them instead of stating how such structures helped them. Therefore, the “How” aspect of the existing infrastructures that was of special help to the VIS is yet to be known. However, the additional infrastructure most frequently cited among others was provision of elevator/repair of broken down elevator.

6.2.6 Challenges Public University Libraries Face in Rendering Library Services for Visually Impaired

The main respondents to this section were the Librarians of the three public university libraries under study. Information was obtained from them through face-face

structured interview conducted by the researcher at different times in their respective offices. At the end of the interviews, respondents came up with four main challenges; financial, resource persons, infrastructure and assistive technology; of which, financial challenge came out as the greatest impairment that the librarians faced in their respective libraries in providing library services to the visually impaired students.

6.3 Conclusion

From the findings and analysis of the study, it can be concluded that University libraries serve as the bedrock of academia, and should be adequately equipped, efficiently managed and made accessible to all categories of students to facilitate their academic pursuits. The inadequacies of the libraries of the three universities as pertaining to the visually impaired students call for an urgent review of the library system, to accommodate all students including the physically challenged. Every student enrolled at a University has the right to quality education which to a large extent depends on the quality of the library facility. The suggested recommendations if duly implemented will go a long way in addressing the current challenges. This will accord the visually impaired students the accessibility they desperately need to study, graduate and become productive members of the Ghanaian society.

6.4 Recommendations

6.4.1 Introduction

In accordance with objective six of this study and relating the objectives to the study to the findings of the research, the following recommendations have been made.

6.4.2 Personal Details of Visually Impaired Students

The public universities in Ghana should liaise with the country's Ministry of Education, Tertiary Division and Colleges of Education for the Virtually Impaired Students (VIS) to examine the possibility of establishing scholarship/sponsorship for the VIS. Since the programmes of study are permanent, on-campus and residential, it can be expected that many VIS especially, females who are desirous of pursuing further studies at the graduate and post graduate levels will be encouraged to enroll in various programmes in the country's public universities so that they may in turn fill in the scarce human resource gaps back at the Colleges of Education if not at the lower level of education.

6.4.3 Kinds of Library Services Available for Visually Impaired Students in the Public Universities

Since most of the VIS reported that they did not know the kind of library services available for the Visually Impaired Students in their respective universities, authorities of public universities; including Librarians, and Resource Persons should consider as a matter of priority in their programmes of action to include special

orientation for VIS on their admission to the university. This may be done through tours of the library sections and seminars and presentations on library services available for the Visually Impaired Students. This aside, it is suggested that the university libraries initiate an intervention programme where the VIS through their own representatives (not necessarily the Students Representative Council) would meet with the library authorities to discuss any problems/constraints that may come up from time to time relating to library services available for them to be addressed.

6.4.4 Adequacy of Services Being Provided By the Public University Libraries for Visually Impaired Students

Based on the fact that majority of the VIS reported that the kind of library services the university libraries provided for the Visually Impaired Students were inadequate, it is suggested that the libraries top management should make a passionate appeal to the university top management especially, the Human Resource Departments of the three universities to consider employing and training more Library Assistants, and qualified Resource Persons if public university libraries are to render adequate and quality library services for Visually Impaired Students to enable them meet their information needs. It is further suggested for consideration by UG library to put in place measures to get its own library staff to take over from the Resource Persons after they have closed at 5pm on each day to prevent the Visually Impaired Students' Section of the library from closing while the other sections of the library are opened to the able- bodied students.

Furthermore, the universities' central administration may consider reviewing their recruitment policy to allow Resource Persons for the VIS to be recruited specifically for the libraries and not to other units only to be seconded to the library.

This will allow the Librarians to have total control over the Resource Persons and assimilate them into the activities of the libraries.

6.4.5 Provision of infrastructure/equipment/materials

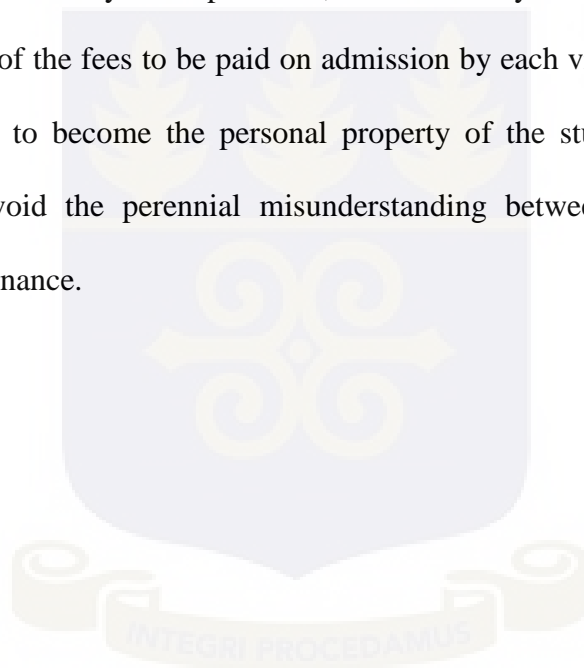
In the mean time Public University Libraries should justify the need for special fund to be set aside to take care of the provision of other services including assistive technology, provision of infrastructure/equipment/materials and auxiliary services that VIS expect the University Library to provide for Visually Impaired Students but are not being provided by the University library. As a long-term measure, this may be done by way of lobbying for financial support from library services related International Organizations and philanthropists who may be interested in providing funds for library services.

6.4.6 Extension of Opening Hours

It came out from the study that majority of the VIS would like the opening hours to be extended to include the libraries in the traditional halls of residence. It is therefore suggested that the issue of opening hours to allow VIS enough time to access service(s) should be discussed between the VIS and the top management of the libraries so as to consider how feasible it will be to extend the opening hours as proposed by the VIS in this study.

6.4.7 Challenges Public University Libraries Face in Rendering Library Services for Visually Impaired

The public universities may consider presenting a memorandum to the appropriate agency or sector under Ministry of Education responsible for tertiary education for special fund to be set up to cater for equipment/materials for disabled including the visually impaired in the universities. On the other hand, as in the case of Sam Jonah Library of the University of Cape Coast, the University can add the cost of digital recorder as part of the fees to be paid on admission by each visually impaired student for the recorder to become the personal property of the student at no cost to the university to avoid the perennial misunderstanding between the library and the Directorate of Finance.



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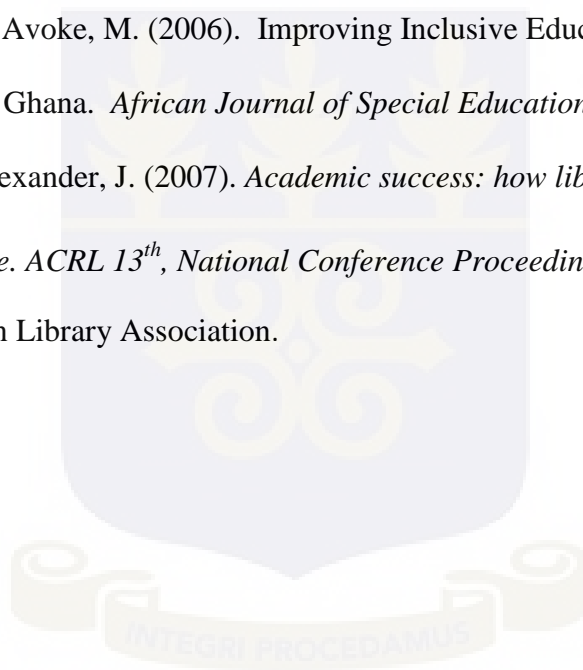
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APPENDIX A

QUESTIONNAIRE FOR THE VISUALLY IMPAIRED STUDENTS.

Dear Valued Respondent,

This questionnaire is part of a study designed to elicit information on library services for the visually impaired students in your university. I consider you as a key stakeholder in my data collection exercise and I should be extremely grateful if you would accept to provide responses to this questionnaire for me.

I wish to unconditionally assure you that your responses will be used purely for academic purpose and that they will be treated as confidential as much as possible.

Thank you for your highest cooperation.

PERSONAL DETAILS

1. Gender : Male Female
2. In which University are you a student?
 - University of Cape Coast (U.C.C.)
 - University of Education, Winneba (U.E.W.)
 - University of Ghana, Legon (UG)
3. What Programme of Study are you pursuing?.....
.....
.....
4. Is the Programme of Study an Undergraduate or a Postgraduate course? (Please underline appropriately)
5. At what level of study are you?
 - Level 100
 - Level 200
 - Level 300
 - Level 400
 - Level 600
6. Do you have on-campus residential status in any of the traditional Hall of residence?
Yes No

7. If the answer to Q6 is “Yes”, please indicate your Hall of residence.
.....

RESEARCH QUESTION 1: WHAT KINDS OF LIBRARY SERVICES ARE AVAILABLE FOR VISUALLY IMPAIRED STUDENTS IN THE PUBLIC UNIVERSITIES OF GHANA

KINDS OF LIBRARY SERVICES AVAILABLE

8. Do you know the kind of library services available for the visually impaired students in your University?

Yes No

9. If the answer to Q8 is “Yes” please list them:
.....
.....

10. On your admission to the University, did the University organize special library orientations for the Visually Impaired Students?

Yes No

11. If the answer to Q10 is “Yes”, did you take part?
.....
.....

12. If the answer to Q10 is “No” please give reason(s)
.....
.....

13. Do you use the Library for your academic work?

Yes No

14. If the answer to Q13 is “Yes” please what kind of library service(s) do you access?
.....
.....

15. If the answer to Q13 is “No” please explain why?
.....
.....

16. Do you seek help from student guides in accessing library services?

Yes No

17. If the answer to Q16 is “Yes” please explain why? (Tick as many as applicable)

- Library Assistants not enough to attend to VIS
- Library Assistants not readily available to respond to request from the VIS
- Library Assistants not patient enough to accommodate the Visually Impaired Students
- Student guides are more friendly and accommodating than Library Assistants.
- Student guides appreciate academic needs of Visually Impaired Students.

18. Do you receive assistance from the Library Assistants in accessing library services?

Yes No

19. Apart from the Library Assistants and Student guides do you receive assistance from Resource Persons? Yes No

If the answer to Q19 is “Yes” please indicate the kind of assistance?

.....

RESEARCH QUESTION 2: ARE THE SERVICES PROVIDED ADEQUATE?

20. How do you evaluate the kind of library services the University Library provides for the Visually Impaired Students?

- Highly Adequate
- Adequate
- Fairly Adequate
- Inadequate

21. Are there any other library service(s) you expect the University Library to provide for Visual Impaired Student but are not being provided by the University library?

Yes No

22. If the answer to Q21 is “Yes” please list them

.....

.....

23. What are the opening hours of your University Library?

.....

24. Do the opening hours allow you enough time to access the kind of service(s) you require from your University Library?

Yes

No

25. If the answer to Q24 is “No” would you recommend extension of time?

Yes

No

26. If the answer is Q25 is “Yes” what would you suggest?

Library to open earlier for VIS only

Library to extent hours to all students

Library to extend library services to the visually impaired students to include traditional Halls of residence

RESEARCH QUESTION 3: IN WHAT FORMAT OF MATERIALS, SERVICES AND EQUIPMENT DO VISUALLY IMPAIRED STUDENTS PREFER THE PUBLIC UNIVERSITY LIBRARIES TO PROVIDE?

27. What kinds of equipment are available at your University Library in aid of accessing information? (Please list as many as available)

.....
.....
.....
.....

28. What types of materials does the University library provide Visually Impaired Students to meet their information needs? (Please list as many as available)

.....
.....
.....
.....

29. From what you have listed under Q28 rank in order of preference the under listed materials that offer you most convenient usage.

(Please use 1, 2, 3, 4,5 etc to rank each material with ‘1’ being the most preferred and ‘2’, ‘3’ in that order).

30. Would you suggest any modification in some of the materials? Yes No

31. If the answer to Q30 is ‘Yes’ which of the material(s) would you want some modification and how?

.....
.....
.....

RESEARCH QUESTION 4: WHAT ARE THE EXISTING INFRASTRUCTURES IN THE PUBLIC UNIVERSITY LIBRARIES FOR THE VISUALLY IMPAIRED STUDENTS?

32. Are the existing infrastructures in your University Library of any special help to the Visually Impaired Students? Yes No

33. If the answer to Q32 is ‘Yes’ please state how?

.....
.....

34. What additional infrastructure do you consider would be of help to the Visually Impaired Student but which your University Library does not have?

.....
.....

35. Which existing infrastructure in the University Library in your opinion pose challenges to the Visually Impaired Students?

RESEARCH QUESTION 5: WHAT IS THE CHALLENGES PUBLIC UNIVERSITY LIBRARIES FACE IN RENDERING LIBRARY SERVICES FOR THE VISUALLY IMPAIRED STUDENTS?

36. What do you consider as the challenge your University Library faces in rendering library services to Visually Impaired Students?

.....
.....
.....

37. What suggestions or comments would you want to offer in improving University Library service(s) to the Visually Impaired Students

.....
.....
.....
.....
.....



APPENDIX B

INTERVIEW SCHEDULE FOR UNIVERSITY LIBRARIANS

INTRODUCTION

Good Morning / Afternoon Sir

I am Paulina Nana Yaa Kwafoa, a Senior Assistant Librarian and a Senior Member of staff at the University of Cape Coast. I am working on my M' Phil project thesis work on "PROVISION OF LIBRARY SERVICES FOR THE VISUALLY IMPAIRED IN PUBLIC UNIVERSITIES IN GHANA". Which requires one to gather primary information from some individuals, through the use of questionnaires and in some instances, obviously in your official position as a Librarian of the one of the 3 public University Libraries I have selected for any thesis, you become one of such key individual whose contribution to providing vital information to my work can not be over looked in sampling my respondents.

Precisely it is for this conviction, Sir/Madam, that I should be most grateful to have your attention this morning/afternoon.

I wish to sincerely assure you that your responses will be used for purely academic exercise and that you would not in any way be responsible for whatever response you provide in our discussion/interview.

PERSONAL DETAILS

1. Sir, how long have you occupied or been in the position as the University Librarian?
.....
2. Apart from providing library services to the general students on campus, does this University, and for that matter, the Sam Jonah Library, University of Cape Coast / Osagyefo Library, Winneba / Balme Library, Legon extend special library services to the Visually Impaired Students?
Yes No
3. Please can you recollect; when the University first admitted Visually Impaired Students?
.....
4. Do you know how many Visually Impaired Students were first admitted by the University that year? Yes No

5. If the answer to Q4 is “Yes” how many were they?
.....
.....

6. What is the current number of Visually Impaired Students in your University?
.....

7. What programme of study does majority of the Visually Impaired Students pursue?

8. May I know from you, Sir, what kind of library services does your University Library provide for the visually impaired students? Please tick as many as applicable

- Transcribing scripts
- Lending services
- Photocopying services
- Recording services
- Embossing services
- Examination/quizzes
- Leisure

Others, please specify why this/these

9. Have the Visually Impaired Students made any suggestion(s) for special library services to be extended or provided them?
.....
.....

10. If the answer to Q9 is “Yes”, please what are these special services?
.....

11. Is the library Home-page accessible to the Visually Impaired Student?

12. If “No” does the library have any plans of making the web-site accessible to the Visually Impaired Student?

13. In your opinion does the University library have the capacity to provide library services for the Visually Impaired Students?

14. Does the library have a special budget line to acquire materials or equipments for use by Visually Impaired Students?
15. Does the library provide special library services concession like extended time period; e-mail notification of new arrivals; volunteers for recording books into audio form to the Visually Impaired Students?
16. When one enters the library one sees directional signs giving directions to users May I ask whether the library has plans to brail those directional signs including general notices for the benefit of the Visually Impaired Students?
17. What is the existing infrastructures in your University that help to provide library of library services to the Visually Impaired Students?
18. What other infrastructure do you think can be of help but are not available which the University plans to provide?
19. Have you created a special section/unit in the library that is being manned by library staff for the Visually Impaired Students alone?
20. Please, what is your take on resource sharing for the Visually Impaired Students?
21. Would you advise that accessibility issues and assistive technologies be included in the training curriculum for library professionals?
22. Does your University Library offer proficiency training for the Library Assistants to improve their quality delivery services to Visually Impaired Students?
23. If the answer is “Yes” please may I know how often?
24. What kinds of equipment/materials are available at your University Library for aiding Visually Impaired Students in accessing information?

25. May I know your challenges in the provision of library services for the visually impaired?
26. Lastly, Sir, what suggestions or/and comments would you like to make for improving library services to the Visually Impaired Students?



APPENDIX C



UNIVERSITY OF GHANA
DEPARTMENT OF INFORMATION STUDIES
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

INFS 6/24

18th November, 2014

Ref. No.:

The Coordinator
R-CAMART
UCC Library
University of Cape Coast
Cape Coast

Dear Sir/Madam,

LETTER OF INTRODUCTION - PAULINA NANA YAA KWAFOA

This is to introduce to you Paulina Nana Yaa Kwafua, a Master of Philosophy student of the Department of Information Studies. Paulina is expected to submit a thesis work as part of the requirements for her MPhil programme. She is researching on the topic: "Provision of Library Services for the Visually Impaired in Public Universities in Ghana."

We would appreciate any support you can give her.

Yours faithfully,

DR. MUSAH ADAMS
FOR: (HEAD OF DEPARTMENT)



COLLEGE OF EDUCATION

• Tel: +233 (0) 303 937 957

P. O. Box LG 60, Legon, Accra, Ghana.

• Email: dislegon@ug.edu.gh

• Website: www.coe.ug.edu.gh

APPENDIX D

UNIVERSITY OF GHANA



DEPARTMENT OF INFORMATION STUDIES
P. O. BOX 60, LEGON, GHANA.

Our Ref.:

Telephone: 0302513486

Ext. 3098

Your Ref.:

Email: dislegon@ug.edu.gh

18th November, 2014.

The Head
Unit of the Visually Impaired
University of Education
Winneba

Dear Sir/Madam,

**LETTER OF INTRODUCTION
PAULINA NANA YAA KWAFOA**

This is to introduce to you Paulina Nana Yaa Kwafœa, a Master of Philosophy student of the Department of Information Studies. Paulina is expected to submit a thesis work as part of the requirements for her Masters' programme. She is researching on the topic: "**Provision of Library Services for the Visually Impaired in the Public Universities in Ghana**".

We would appreciate any support you can give her.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Dr. Musah Adams'.

DR. MUSAH ADAMS
FOR: (HEAD OF DEPARTMENT)

INTEGRI PROCEDAMUS

APPENDIX E



UNIVERSITY OF GHANA
DEPARTMENT OF INFORMATION STUDIES
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

INFS 6/24

18th November, 2014

Ref. No.:

Office of Students with Special Needs (OSSN)
University of Ghana,
Legon


Dear Sir/Madam,

LETTER OF INTRODUCTION - PAULINA NANA YAA KWAFOA

This is to introduce to you Paulina Nana Yaa Kwafua, a Master of Philosophy student of the Department of Information Studies. Paulina is expected to submit a thesis work as part of the requirements for her MPhil programme. She is researching on the topic: "Provision of Library Services for the Visually Impaired in Public Universities in Ghana."

We would appreciate any support you can give her.

Yours faithfully,


DR. MUSAH ADAMS
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