UNIVERSITY OF EDUCATION, WINNEBA

SUPPORT SERVICES FOR STUDENTS WITH VISUAL IMPAIRMENT AT

THE UNIVERSITY OF EDUCATION, WINNEBA

ABIGAIL AFUA BAAH

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A THESIS IN THE DEPARTMENT OF SPECIAL EDUCATION, FACULTY OF EDUCATIONAL STUDIES SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, UNIVERSITY OF EDUCATION, WINNEBA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE MASTER OF PHILOSOPHY (SPECIAL EDUCATION) DEGREE

SEPTEMBER, 2017

DECLARATION

STUDENT'S DECLARATION

I, Abigail Afua Baah declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE:………………………………………………

DATE:………………………………………………………

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised by me in accordance with the guidelines for supervision of Thesis as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: **DR. DANIEL DOGBE**

SIGNATURE:………………………………………………

DATE:………………………………………………………

ACKNOWLEDGEMENTS

DEDICATION

This thesis is dedicated to my parents Mr. and Mrs. Baah, my husband Eric Terkper Kutor and two lovely daughters Dede Ayebea Terkper and Korkor Asamaniwaa Terkper.

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ABSTRACT

The purpose of the study was to investigate the support services for students with visual impairment at the University of Education, Winneba. The study, which was qualitative in nature, utilized the case study design with interview as an instrument for data collection. A sample of 11 participants were used comprising 8 students with visual impairment and 3 resource persons from a population of 60 students with visual impairment who were conveniently sampled. A semi-structured interview was used. Data from the study was thematically analyzed based on the emerging themes. Findings from the study revealed among others that, orientation and mobility services help students with visual impairment to locate relevant places such as resource room, canteen, offices and places of convenience. It was also found that the mobility techniques that were employed at the University of Education, Winneba were the white cane and sighted guides. It was found out that students with visual impairment receive transcription services from the resource center in the form of braille embossment and audio recordings of academic materials. However, there are some challenges affecting the work of resource persons at UEW. Some of the challenges were but not limited to inadequate resource personnel, few resource materials, lack of resource center for students with special needs. The researcher recommended that orientation and mobility specialist, braille transcribers and resource persons must be provided by the authorities of University of Education, Winneba to help improve the provision of service to students with visual impairment in order to make their stay on campus a success.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The number of students with visual impairment in colleges and universities globally has increased dramatically during the past two decades (Zhou, Smith, Parker & Griffin-Shirley, 2013). Support services for students with visual impairment have been a topic of significant importance for centuries, but still remains a great challenge (Mednick, 2004). In 2014, the World Health Organization (WHO) estimated that over 285 million people of all ages were visually impaired, of whom about 39 million were totally blind of which some are enrolled in schools.

The term visual impairment (VI) covers deficiencies ranging from partial sightedness or low vision to blindness. An individual who is visually impaired has his or her ability to see clearly affected, reduced or completely lacking (Chauke, 2002). This limitation has serious implications for the learning process, personal development and progress towards self-actualization. Individuals who are partially sighted or have low vision are those who can read large print and therefore need services like magnifying devices.

An individual with low vision has sufficient functional vision to such a degree that vision rather than touch or hearing can be utilized as a chief avenue for learning. However, an individual with blindness is described as a person who does not receive meaningful input through the visual sense. These individuals use tactual and auditory means to learn about their environment (Mednick, 2004) and therefore requires the provision of various support services in a school setting.

These students with visual impairments, more often than not need some level of support in academic institutions. Support services in this study have been conceptualized as human support services required for a successful completion of their academic activities. These support services are orientation and mobility services, braille transcription services, resource persons " services and other related support services.

Orientation and mobility services are provided to individuals with visual impairments to develop or relearn the skills and concepts an individual needs, to travel safely and independently within the home and community. The sighted guides, mobility specialist, dog guides and the white cane are the major mobility aids. For individuals with visual impairments, mobility can be a particular challenge when attempting to move about safely in an environment full of obstacles and pitfalls. Yet mobility is essential to personal and professional progress, productivity, independence and self-esteem.

Any person, regardless of the degree of vision loss, can be taught to move around safely in his or her home, work and community. According to the California Department Handbook of Support Services (2015), state certified orientation and mobility specialists teach the techniques necessary to achieve independent mobility, both to low vision and to totally blind clients. Such techniques include the safe and efficient use of residual vision as well as the use of mobility aids.

The most common mobility aid is the white cane followed by the guide dog. However, technology is bringing new mobility aids to the market constantly. Some of the more promising new mobility aids are: talking signs that transmit information to hand-held receivers which announce the location of important features such as public telephones, restrooms, street addresses, traffic signals, etc.; portable geographical

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positioning systems (GPS) which let users know precisely where they are; computerized city maps which provide users with information on how to get to their destinations and canes that beep or vibrate to indicate objects not only at ground level, but at waist and hand level. These and many other new "high tech" mobility aids are constantly being developed and improved and this will revolutionize travel for individuals with visual impairments.

The braille is a systematic code of "cells" of six raised dots which can be used in hundreds of configurations to represent letters, numbers, punctuation marks and common letter groupings (Talbot, 2001). The braille code is adaptable to various kinds of notation such as math, music and computer language. Not all individuals with blindness read braille proficiently. In fact, most braille users are fairly slow readers and many persons with visual impairments never learn it at all. This is an extremely unfortunate fact because braille is an invaluable tool for persons who cannot read print (Talbot, 2001). The braille teacher and transcribers are the major professionals in charge of teaching and transcribing for individuals with visual impairments. Most braille transcription services require receipt of materials in advance of the date needed. At least a two weeks lead time is typical, though transcription services may need even more advanced notice for complex materials.

The provision of resources has to do with the ever-changing world of technology. In recent years, technological explosion has resulted in new electronic devices for use by students with visual impairments such as the Optacon, Kurzweil reading machine, Versa braille and the Cranner abacus (Hallahan & Kauffman, 1991). These devices with the assistance from resource persons help individuals with visual impairments in their various academic works. The resource persons and the instructors or lecturers of the various academic institutions especially the universities

work collaboratively. The provision of special education services must be based on a student‟s specific needs as identified through a comprehensive evaluation of the student‟s 3 current level of functioning and knowledge in the following areas: academic skills, communication skills, sensorimotor skills, social or emotional skills, orientation and mobility skills, daily living skills and career or vocational skills. The resource teacher‟s duty however is to take a keen interest in the academic work and progress of the students with visual impairments.

The other support services available to individuals with visual impairments are but not limited to counselling services and independent living services. These services are usually not familiar to various universities especially the latter. However, counseling services provided at the universities are not usually rendered at the various academic departments. Consequently, in view of the problems faced by the students with visual impairments at UEW, it is the aim of the researcher to gain an understanding of how students with visual impairments are being supported.

1.2 Statement of the problem

In a qualitative study, Miner (2001) found that the use of guide dogs enhanced social contacts and changed social interactions in public settings. The participants described their guide dogs as „ice-breakers‟ which gave a starting point for conversations and promoted public interactions. Again, Wiggett-Barnard and Steel (2008) found that guide dogs seen as „social magnets‟ provide social facilitation through public greetings, contacts and conversations. According to Baldwin (2003) using the long cane or a white support cane identifies a person as visually impaired. However this is not the case with Ghana especially University of Education, Winneba this because most of the studies concerning orientation and mobility were done

outside Ghana and more importantly those studies were not done at the University of Educartion, Winneba.

It was also appeared that resource persons in the resource centre were insufficient. In effect, the personnel-student ratio was unequal which seems to make the provision of services to the students with visual impairment very poor.

Due to the academic and mobility experiences affecting persons with visual impairments, it was deemed appropriate for the researcher to investigate into the level of support services given to the students with visual impairments at University of Education, Winneba.

1.3 Purpose of study

The purpose of this study was to investigate the support services available to students with visual impairments at the University of Education, Winneba.

1.4 Objectives of the study

This study sought to:

1. Ascertain the level of orientation and mobility support services provided to students with visual impairments at the University of Education, Winneba (UEW).

2. Examine the nature of transcription services provided to students with visual impairments at UEW.

3. Explore the challenges affecting the provision of support services to students visual impairments at UEW.

1.5 Research questions

The following questions were raised to guide the study

1. What orientation and mobility services are provided to the students with visual impairments at UEW?

2. What is the nature of transcription services provided to the students with visual impairments at UEW?

3. What are the challenges affecting the provision of support services to students visual impairments at UEW?

1.6 Significance of the study

The findings from the study will show the orientation and mobility services offered to students with visual impairments at the University of Education, Winneba. This will provide evidence to the management of the university on the state of orientation and mobility services provided to students with visual impairments. The study is also expected to examine the nature of transcription services provided to students with visual impairments at UEW. Again, the result of the study would explore the challenges affecting the provision of support services to students visual impairments at UEW so as to find possible means of surmounting them.

Findings from the study would enable key stakeholders including the Ministry of Education, Ghana Education Service and the Ministry of Gender and Social Protection streamline existing policies on the students with visual impairments with regard to their tertiary education as well as in the formulation of new policies concerning the student with visual impairments tertiary education in Ghana.

The findings would benefit students with visual impairment at the tertiary level as a source of information on support services to make their education in tertiary institutions like the University of the Education, Winneba worthwhile. Finally, findings from the study will add to existing literature and serve as a reference material to researchers.

1.7 Delimitations of the study

There are various categories of students with disabilities at the University of Education, Winneba. The most common categories are students with physical disabilities, hearing impairments, and visual impairments.

The researcher however, focused the research on students with visual impairments. Even though students with physical and hearing impairments equally need support services the researcher decided to examine the support services provided to students with visual impairment because adjustment to vision loss can be a slow and painful process. The researcher also delimited the support services to human support services since all the other forms of support services are driven by human support.

1.8 Limitation of the study

The study was conducted at the time when the school was preparing for examinations and as a result the sample size of the students was affected. This also delayed the period of data collection as the day and time schedules for the interviews kept changing. The researcher used more time and financial resources to manage the situation that envisaged. With all these limitations notwithstanding, the outcome of the study was not affected in anyway.

1.9 Operational definition of terms

Support: Support means to give or to be ready to give help to somebody if they need it.

Support services: it is an activity or function required for successful completion of a process, programme or project. Support services have been conceptualized in the study as orientation and mobility services, braille transcription services, resource teacher services and other related services.

Visual impairment: This is an umbrella term that includes conditions such as low or partial vision and blindness.

1.10   Organization of the study

The study has been organized into five chapters; chapter one introduces the study with background to the study, the statement of the problem, the purpose of the study and research questions, significance of the study, delimitation and operational definition of terms used in the study.

In chapter two, related literature was reviewed based on themes derived from the purpose of the study; the conceptual framework, the theoretical framework and related empirical studies.

Chapter three covers the research methodology which includes the research design, the population, sample and sampling technique; methods for data collection and analysis; access as well as ethical considerations.

The chapter four covers data presentation, analysis and discussion of findings; qualitative data collected have been thematically presented, analysed and discussed.

Finally, in chapter five, the major findings from the research have been summarized and conclusion and recommendations also made.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the review of literature. The literature is reviewed from research articles, journals and books on support services. The areas discussed are:

1. Conceptual framework of the study

2. Theoretical framework underpinning the study

3. Orientation and mobility services for the students with visual impairments.

4. Braille transcription services for students with visual impairments.

5. Provision of services by resource persons to students with visual impairments

6. Other support services available for students with visual impairments.

7. The challenges affecting the provision of support services to students visual impairments

8. Summary of the literature review

2.2 Conceptual framework of the study

A conceptual framework is a structure of what has been learned to best explain the natural progression of a phenomenon that is being studied (Camp, 2001). Miles and Huberman (1994) also defined a conceptual framework as a visual or written product, one that explains, either graphically or in narrative form, the main things to be studied, the key factors, concepts, variables and the presumed relationships among them.

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Based on the topic with which this study was carried out, that is, support services for students with visual impairments at the University of Education, Winneba; the researcher decided to gain insight into the topic. The concepts are visual impairments and support services. Visual impairments is the dependent variable and support services the independent variable. This means that in order for a student to be given the provision of support services then the student must be visually impaired. In the diagram below, one directional arrow head describes the direction and elements under consideration.

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              ┌─────────────────┐
              │ SUPPORT SERVICES │
              └─────────────────┘
   ┌──────────────┐  ┌──────────────┐  ┌────────────┐
   │ ORIENTATION AND│  │ TRANSCRIPTION │  │ CHALLENGES │
   │ MOBILITY SUPPORT│  │   SERVICES   │  │            │
   │   SERVICES    │  │              │  │            │
   └──────────────┘  └──────────────┘  └────────────┘
              ┌─────────────────────┐
              │ STUDENTS WITH VISUAL │
              │     IMPAIRMENT      │
              └─────────────────────┘
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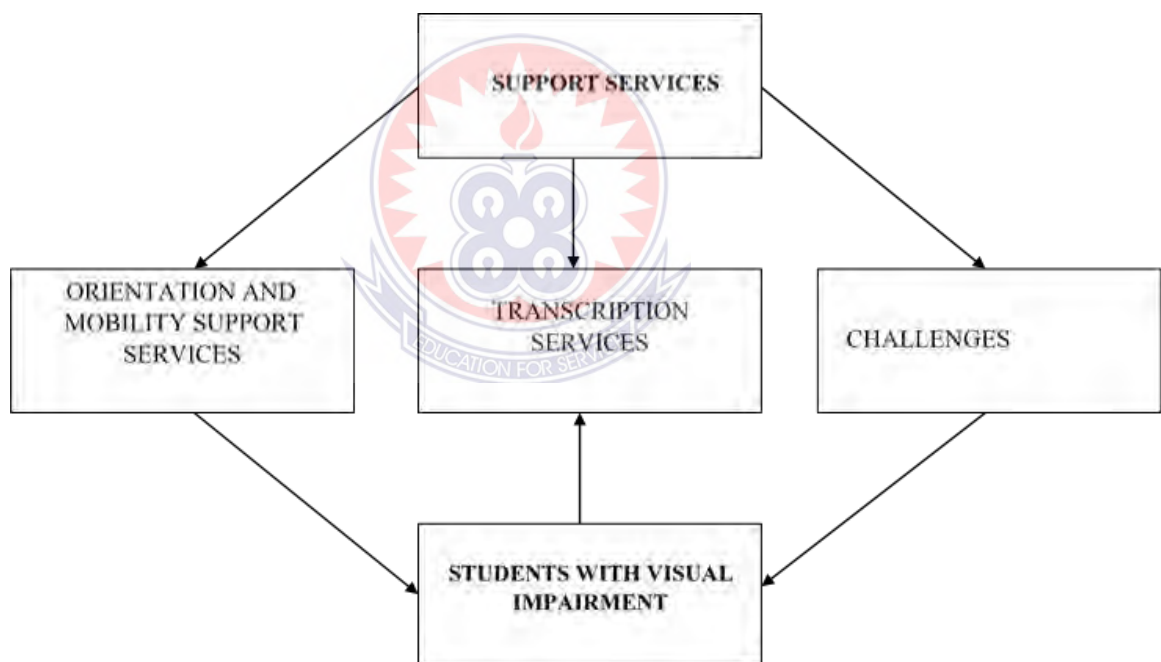
Figure 2.1 Diagrammatic illustration of the conceptual framework of the study

From the diagram, it is realized that support services are given to students with visual impairments and vice versa. This implies that one must be visually impaired to

receive support services and support services are only provided to students with visual impairments. The various forms of support services that is orientation and mobility support services. Transcription services narrows down to students with visual impairment. These services combine to form the support services needed for the attainment of a successful goal for a comfortable life to be enjoyed by students with visual impairments. However, in the quest of providing these vital service to the students with visual impairment, the resource persons were beseeched with challenges such as limited personnel and limited space.

2.3 Theoretical framework

The theoretical framework that underpins the study is the A3 model and the social model of disability.

2.3.1 The A3 model

The A3 Model is a theoretical work by Smith, Schwanke and Edyburn (2001). The A3 model describes a developmental process associated with efforts to provide access for individuals with disabilities to facilities, programs, and information. There are three phases: Advocacy, accommodation and accessibility.

In the first phase, advocacy efforts raise awareness of inequality and highlight the need for system change to respond to the needs of individuals with disabilities. Accommodation are the typical response to advocacy. Inaccessible environments and materials are therefore modified and made available in phase 2. Normally, accommodation are provided upon request. While this represents a significant improvement over situations found in the earlier phase, accommodation tend to maintain inequality since there may be a delay that is the time needed to convert a hand out from print to braille. It may require special effort to obtain. Meaning; call

ahead to schedule or it may require going to a special location. For instance if the only computer with screen reading software is at the library.

In phase 3, accessibility describes an environment where access is equitably provided to everyone at the same time. Often this is accomplished through outstanding design (e.g. ergonomic furniture, software with accessibility and performance supports built in). All three factors are present in each phase. However, the differential impact of the three components in terms of time, effort and focus is illustrated by the waves across phases.
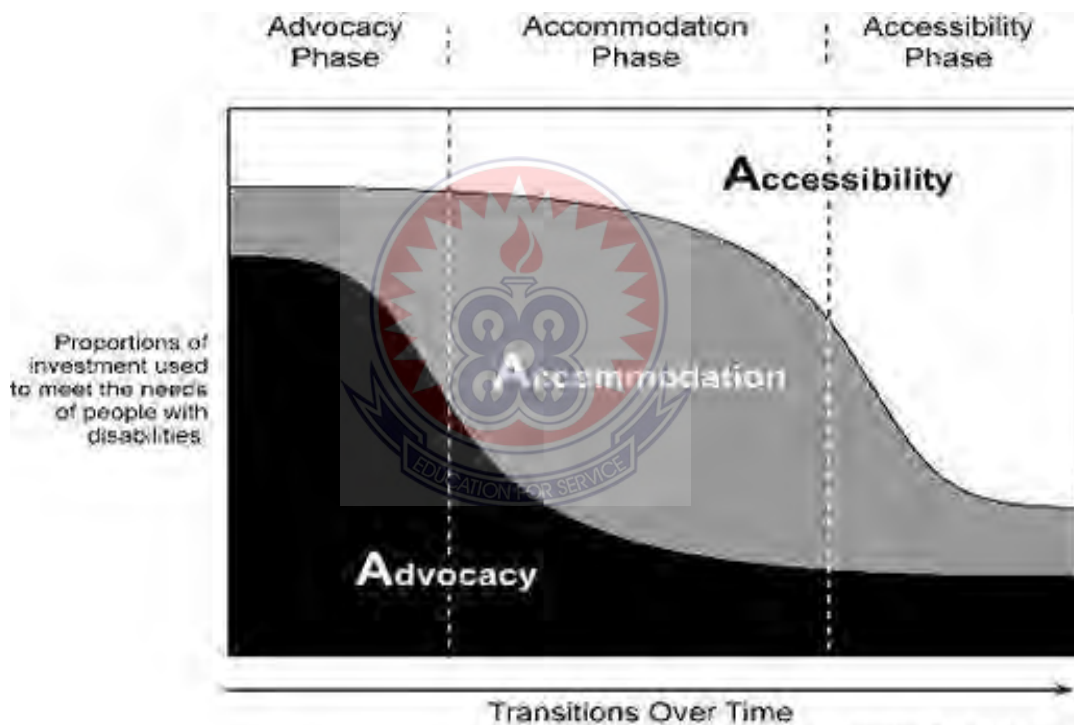
Figure 2.2.: A web- and-flow of efforts that are needed to obtain universal accessibility.

2.3.2 Implications of the theory to the study

In relating the model to the study, phase 1 which talks about advocacy explains the unequal opportunities that student with disabilities face as compared to their peers without disabilities.

Blind and low-vision student access to formal schooling has been a topic of significant importance for centuries, but still remains a great challenge. In 2010, the World Health Organization (WHO) estimated that over 285 million people of all ages were visually impaired, of whom about 39 million were totally blind. About 90 percent of them live in developing countries where disabled children, including the visually impaired and blind students, are often discriminated against, marginalized, overlooked, excluded, hidden away, abandoned or used for begging instead of integrating them into existing public education systems.

Educational reforms, ensuring equal access and opportunities for students with visual impairments in both developing and western societies, have been long overdue. The issue of educating students with visual impairments has contributed to development of many approaches and action programs addressing their day-to-day and long-term needs through government-run and non-profit institutional systems (Students Support Services, 2002).

Studies concerning how students with disabilities experience schooling provide vital data, which can be used to inform decisions on provision of requisite services, to enhance such students" participation in learning. Such studies provide students with disabilities unique opportunities to describe the adequacies and inadequacies of services offered to them; attitudes of staff as well as non- disabled students towards them and other barriers that impinge on their abilities to participate successfully in learning activities (Students Support Services, 2002).

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The phase 2, which talks about accommodation can be related to the stage where the institution provides the necessary support needed by the student with disabilities to meet their needs but is not reached to all due to certain factors like time constraints. Accommodation however is not reached to all due to certain factors which may impede the accommodation process like time constraint, inadequate infrastructure, inadequate materials needed for a successful completion hence the need for a third phase. A number of institutions in developed countries especially Scotland, have dedicated resource centers for students with visual impairments where all or most of the equipment are housed (Students Support Services, 2002).

The first year at any university is very difficult for everybody and particularly for students with visual impairments. According to Chauke (2002), special attention should be given to students with visual impairments due to their disability.

The third phase which talks about accessibility can be related to the situation where both the abled and disabled are given similar opportunities in terms of support services to achieve a common goal. The 1992 Constitution of Ghana has abolished any form of discriminations. As result of this, anybody who qualifies to be admitted at a university should be admitted regardless of his or her physical condition, religion, gender or even background. Having said that, it means that the university should prepare itself fully to accommodate any student with special educational needs. Preparations must be made on material support resources like the white cane, environmental structures like rumps and human resources that is the staff or professional personnel. For this reason, planning and designing for the majority should take into account the requirements of persons with disabilities (PWDs) (Uslu, 2008).

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2.4 Orientation and mobility (O&M) services for students with visual impairments

Being oriented implies that one knows where one is, where one wishes to go and how to get there. Mobility refers to the act of movement within the physical environment (La Grow & Weessies, 1994).

When sight problems occur, orientation and mobility can be adversely affected because of acuity loss, field loss or a combination of both. Specific travel problems can be associated with each type of loss although every person may function differently. According to Lagrow and Weessies (1994), the general goal of O&M training in blind rehabilitation centers is to teach students with visual impairments the techniques and strategies required for independent travel so that they will be as safe, efficient and confident as possible. These techniques can range from using a human guide to reach a destination to using a variety of mobility aids in order to travel complex environments alone. For the purpose of the study orientation and mobility is conceptualized as the long cane, the guide dog, the O&M specialist, the sighted guide and new mobility aids.

More so, Wolffe (1999) argues that orientation and mobility (O & M) training is an important skill that allows a person with visual impairment to safely access his or her environment both indoors and outdoors. Learning sighted guide techniques, the use of the white cane and possible dog guide training are all adaptations a person who has a visual impairment can use to access their environment (Wolffe, 1999).

2.4.1 O & M instruction and the long cane

Navigation difficulties have been identified as one of the main hindrances to independent living for people who are blind or partially sighted (Golledge, 1993). Yet those with impaired vision are still able to integrate spatial information (Ungar, 2000)

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such that they can encode a mental map, recall a route, give directions and point out shortcuts.

Individualized O & M instruction is designed to develop travel skills so that an individual can move about safely and confidently in any environment. Such instructions help an individual develop his abilities, understand his limitations, recognize unsafe situations and solicit assistance when needed. Much of O & M instruction involves the use of the long cane which is typically as tall as a person"s chest and most often white in colour with a red tip. It is prescribed based on an individual"s height, length of stride and walking speed (LaGrow & Weessies, 1994). According to Baldwin (2003) using the long cane or a white support cane identifies a person as visually impaired. The long cane is different from a support cane. The long cane is meant to provide advance information about the surface and any obstacles in front of the user; it is not meant for support or balance (Baldwin, 2003).

For general travel, the tip of the long cane is always on or near the ground, moving from side to side. For more specific uses such as walking up or down stairs. Also, depending on the type of vision loss, the cane technique and the use of other skills may vary.

A student with blindness for travel purposes will need an extensive O & M programme to develop alternative ways of obtaining information about the environment. Improving auditory awareness, tactual perception and visualization strategies in combination with the proper use of a long cane are very important. The constant contact technique that is the cane tip slides on the floor when moving would provide maximum tactual information about surfaces. This means that steps, curbs, and uneven ground would no longer be a surprise or a danger. The two-point touch

technique (the cane tip taps from side to side) is similar but provides less information about the walking surface.

A programme plan for a student with low vision will focus on helping him or her maximize his or her usable vision but also to understand his visual limitations (Willoughby & Monthei, 2007). Many low vision persons have difficulty with depth perception which can cause stumbling problems or they may lose their ability to see in dark or shady areas. Many tend to look down most of the time trying to monitor where they are stepping and in turn miss much of what is going on in the environment around them. A person with low vision exhibiting this behaviour will also benefit from using a long cane. When used correctly, the long cane will tell him what is underfoot so he can keep his head up, pay attention to the environment and therefore make more efficient use of his residual vision. That may mean that an individual can once again read a street sign from across the street or read a price tag in a store.

Different studies have been conducted on support services in all dimensions of disabilities and academia (Baldwin, 2003). A few studies have focused on the practical approach to cognitive basis of mobility and orientation training (Joffee and Rikhye, 1991, Dodds et al; 1994, Mettler, 1994). Some quantitative studies have reported a reduction in outside travel and mobility and the performance of activities of daily living (ADL) relative to life before the visual disorder (Stuen, 1990, Watson, 2000, Wahl et al; 2003). Most studies have recorded a decrease in social contacts (Defini and Burack-Weiss, 2000, Watson, 2000, Wahl et al; 2003). Although Stuen (1990) found an increase in social activities, possible explanations were not described in detail. Studies by Dahlin-Ivanoff et al (1998, 2001 and 2002) stressed the importance of improving independent living for visually impaired older patients.

Bampo (2011), in her study investigated university of cape coast distance education students" assessment of facilities and services available to them, and their learner support needs. The sample size for the study was 329. The sample used comprised 294 distance education students, 5 study center coordinators, 20 dropouts and 10 course tutors. The stratified random andpurposive sampling procedures were used. The major findings revealed that most distance education students perceived their learner support services as highly supportive of their learning. The study again found that the study center where a student registered and the type of community in which student resides rural and urban were significant factors influencing satisfaction with learner support services.

This current study is comparable to the study found in the above literature with respect to the major issue of concern pertaining to support services. However, the study is set apart by the nature of the participants and methodology. The current study focused on students with visual impairments only, whiles the existing literature (Bampo, 2011) focused on students pursuing distance education. Even though this study Bampo is not related to disability it is realized that the need for support services is an integral component for all learners to achieve their academic goals (Bampo, 2011).

Again, Parker (2009) indicates that subjecting students to a new learning environment may be frightening and that the best mode of imparting the skills the disabled need in the university environment is for the instructor to act as a bridge between the students and the objects. This would serve as a practical example and the student would have a feel for what such an object within the environment stands for (Parker, 2009). Fazzi (2001), points out that doing this will "encourage the student to

have ownership within the learning process and become independent with the ability to act with minimum or no supervision."

2.4.2 O & M instruction and service animals

Guide dogs are service animals that guide people with visual impairment when travelling (Winkle, Crowe & Hendrix, 2011). They are specially trained to recognize and avoid obstacles, which helps people with visual disabilities move independently and safely (Sachs-Ericsson, Hansen & Fitzgerald, 2002).

They guide people with vision impairments, pick up things for those with mobility limitations or pull a wheelchair for manual chair users who experience fatigue at the end of a day or who do not have quite the strength necessary for hills. As in the case of other supports, using animals to extend human capabilities is an old idea. However, programs that train animals to assist those with disabilities are twentieth-century phenomena mainly available in the wealthiest countries (Bohan & Chan, 2015)

Blascovish (1996), in his research on the value of service dogs, found that dog users showed improvements in self-esteem, internal locus of control, psychological well-being, increase in school and work attendance and a dramatic decrease in paid and unpaid personal assistance hours.

Studies have reported the functional effects of using guide dogs on mobility and community ambulation. In an experimental study, Clark-Carter, Heyes and Howarth (1986) found that guide dog users walked significantly faster with a guide dog than when using mobility canes. This is supported by a study by Whitmarsh (2005), which found that the use of guide dogs enhanced mobility and independence in 404 visually impaired guide dog users.

Other studies have reported that the use of guide dogs promotes faster walking speed through noise compensation which inhibits auditory cues during travel orientation, prompt warning of obstacles to help handlers avoid them and safer ways of solving problems (Gitlin, Mount, Lucas, Weirich, & Gramberg, 1997; Steffans & Bergler, 1998).

In a qualitative study, Wiggett-Barnard and Steel (2008) reported that guide dog users felt that their guide dogs were safer and faster mobility aids than their white canes and residual sight. Furthermore, the study found that guide dogs gave more mobility confidence to their users. The use of guide dogs has also been shown to elicit positive psychosocial benefits. Whitmarsh (2005), in a study, reported the psychological and social benefits of owning a guide dog.

The benefits included improved confidence, companionship, socializing and greater sense of security in guide dog users who lived alone. This finding is supported by Refson, Jackson, Dusoir and Archer (1999), who found that using guide dogs improved mental well-being, life satisfaction and acceptance of visual impairment. Other studies have reported that using guide dogs promoted social facilitation by improving community participation, perceived social integration and social contacts (Camp, 2000; Lane, McNicholas & Collis, 1998).

In a qualitative study, Miner (2001) found that the use of guide dogs enhanced social contacts and changed social interactions in public settings. The participants described their guide dogs as „ice-breakers" which gave a starting point for conversations and promoted public interactions. This finding is supported by a qualitative study by Wiggett-Barnard and Steel (2008), where participants described their guide dogs as „social magnets" and provided social facilitation through public greetings, contacts and conversations.

Despite the functional and psychosocial benefits, the use of guide dogs has been found to produce negative impacts. Particularly in non-Western societies, studies have found that guide dog users face issues relating to social acceptance and access into public spaces. A study conducted in South Africa found that the use of a guide dog led to social avoidance towards 20 the owners because of fear of dogs (Wiggett-Barnard & Steel, 2008). The study also found a general lack of public awareness and education regarding guide dogs and their rights to access public spaces.

Another study conducted in Japan found that guide dog owners experienced social rejection and were denied access into „ryokans" (Japanese-style hotels), restaurants and taxis (Matsunaka

Koda, 2008). The study also found that people with visual impairment who used guide dogs reported higher daily stress levels than those who did not use guide dogs.

Studies on guide dogs are extremely limited on the use and impact of a guide dog have only recently gained attention. While studies have shown the positive and negative effects of using guide dogs, there is a lack of research on how a guide dog and its handler, termed a „guide dog team" pursue mobility and negotiate access into public spaces. Little is known about the formation, relationship and challenges of guide dog teams a gap which this study seeks to fill (Matsunaka & Koda, 2008).

Matsunaka and Koda further stated that the decision whether to use a cane or a dog can be a major one which should not be made lightly. The relationship that can develop between humans and dogs can be of the most loving and powerful nature. The assistance that guide dogs provide can be tremendously useful making a significant contribution to independent mobility. However, there are many factors to consider before making this choice.

2.4.3   O & M instruction with the orientation and mobility specialist

Orientation & mobility services are primarily directed toward assisting blind and individuals with visual impairments to achieve independent movement within home, school, work and community settings. In the 1970s, O & M specialists expanded services to include children with visual impairments and youth in the public schools and individuals who have low vision.

O and M specialists today provide instruction to blind and individuals with visual impairments of all ages, including individuals with multiple disabilities and other health impairments.

Orientation and mobility specialists provide direct instruction and consultation for young blind and children with visual impairments (infants, toddlers and preschoolers) and their families. Early O & M intervention may emphasize the following areas: sensory awareness, concept development, environmental exploration, safe and efficient movement. In the public schools, O & M specialists provide instruction in basic skills and protective techniques, cane travel, use of low vision devices, visual efficiency training, intersection analysis, safe street crossing, use of public transportation and shopping skills. Adults who are blind and visually impaired receive training in similar areas and are taught to travel safely and efficiently in residential, rural and urban environments as appropriate (Malghaes, Sankako & Braccialli, 2014)

A study conducted by Malghaes, Sankako and Braccialli, 2014 analyses strategies used by a teacher to support the mobility of students with visual impairment in various school environments. A female student with visual impairment in Brazil aged 5 years and her classroom teacher participated in the study. Their interactions

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were videotaped and later their dialogue and actions were transcribed. Six themes of analysis were elaborated, one for each support strategy used by the teacher.

The results revealed that the strategies employed by the teacher often hampered the child's orientation and mobility. This was probably the result of a lack of assistance by professionals specialized in orientation and mobility services.

2.4.4 O & M instruction and personal assistance services

Personal assistants (PAs) are people who provide aid to people with disabilities so they can perform their daily task. The task they would ordinarily perform for themselves if they were 22 not disabled. The personal assistance services (PAS) provided may include hands-on, cuing or stand-by assistance with tasks such as self-care and hygiene including feeding, bathing and dressing; ongoing paramedical needs including catheter care and injections; household maintenance such as shopping, cooking and cleaning, sexual positioning; child rearing such as positioning the baby to nurse, cognitive functions such as planning time, signing contracts and judging social situations, communication and transportation (Litvak, Heumann and Zukas, 1987).

Personal assistance services can be provided in a variety of settings ranging from institutions, nursing homes, group homes to private homes, workplaces, schools, recreation sites and other public venues. PAs can be paid (formal) or unpaid (informal), family member or not, live-in, or independent provider or home care/home health agency employee. Personal assistants tend to be middle-aged, unskilled women or students who prefer erratic schedules. Those who work for home care or home health agencies may have some training in basic personal care such as bathing and transferring. Independent personal assistants may or may not have some training (Jayasooria, Krishnan & Ooi, 1997).

Actually, many in the independent living movement prefer hiring personal assistants who are not trained. In this respect, the person with the disability can train the worker without having to discourage "bad habits" such as presuming to speak for the disabled employer.

As long as there have been people with disabilities, there have been PAs. Typically, these services have been provided informally in the home by the family or more recently and more formally in institutions and nursing homes (Jayasooria, Krishnan & Ooi, 1997).

In underdeveloped countries, people with significant disability receive PAs from family members or household servants. They often live shorter lives and face major cultural and 23 architectural obstacles to leaving their homes and participating in community life as workers and citizens. Wealthy and sometimes middle-class families have the resources to hire servants. Poorer people rely on family, friends and sometimes charity.

Research shows that as people with physical disability have long maintained that there is an increase in work and community engagement when one has PAs (Kimmick and Godfrey, 1991; Nosek, Fuhrer & Potter, 1995; Richmond et al., 1998). Research on PAs shows outcomes of using PAs, population in need of PAs, efficacy of various models of PAs and the value of consumer control.

Studies of cost of various models, legal analyses of liability, consumer satisfaction and demonstrations of consumer-driven models among people of all ages in several North American states and in Europe show that many consumers prefer PAs that allow them to be in control. These studies also show that such programs are legally and economically feasible (Beatty et al., 1998; Benjamin & Matthias, 1998; Cameron & Firman, 1995; Egley ,1994; Litvak, 1996; Reiff, Zawadski & Hyde, 1996;

Sabatino and Litvak ,1996). Consumer direction and control have become a viable option.

Issues regarding differences in training and skill levels between those providing cueing or stand-by assistance with personal hygiene and maintenance versus those providing assistance with learning tasks (in or out of the classroom), participation at meetings or making judgments in social situations have not been fully explored.

For example, what should be the skill level and pay for people working with people who are not fully self-directed? In addition, in the United States, people with vision impairment have tended to maintain that they do not use PAs because they receive assistance on an informal or volunteer basis with driving, reading, shopping and other tasks that are not necessarily tied to medical survival needs (Benjamin & Matthias, 1998).

In addition to the pressure for deinstitutionalization, the independent living movement particularly in the United States and Scandinavian countries has pushed for consumer-controlled and consumer-directed personal assistance services (National Council on Aging, 1996; Ratzka, 1993). This followed from their conviction that independence does not mean being able to do everything for oneself rather it means being in control of one's support. In this way, the PA user determines when, where and how he or she receives PAs rather than this being the decision of professionals and providers.

National Council on Aging (1996) again stated that health and social service professionals have been slow to grasp the significance of PAs to the lives of people with disability. In contrast, there are volumes of research on the impact of "care giving" on family members of the persons with disability. This lack of interest of

professionals concerning the impact of PAs on the lives of disabled people stems from reasons such as paternalism, the tendency to over medicalize tasks that require little professional expertise, the lack of connections professionals have to the day-to-day lives of disabled people with chronic functional disabilities and the training professionals receive that emphasizes the notion that if one cannot accomplish a task without the help of another person then one is dependent.

Orientation and mobility specialists can help determine the best system to use for individual students. As well, the specialists can provide information about the preferred system and any training general education teachers may need (National Council on Aging, 1996).

Curtis, Emerson and Kim (2009) were of the view that, techniques that may be used immediately is the sighted guide technique also called human guide that can be used with or 25 without a cane as a means of moving with another individual. This author indicated that when the sighted guide techniques are used correctly with a proficient sighted guide, travel is very safe and efficient. The guide can be a constant source of information about the environment.

Corbett, Haneline, Penrod and Smith (2010) argued that sighted guide travel used as the only mobility system may foster dependence rather than independence. The individual with visual impairment holds the guide"s arm and walks a little behind the guide and to the guide"s side.

Corbett et al (2010) added that the individual with visual impairment grasps the guide firmly with the thumb on the outside of the guide"s arm and the four fingers curled around the inside of the guide"s arm. Individual with visual impairment should not grasp the guide"s clothing. Young individuals with visual impairment can take the guide"s wrist. Older individual can grasp just above the guide"s elbow. The guide

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always checks that there is enough room from side-to-side and overhead to pass safely with the individual with visual impairment. The guide hesitates before making a turn, stepping up or stepping down with individual with visual impairment. Some individual with visual impairment may use their cane when they are walking with a guide. This allows the individual with visual impairment to gain additional information and identifies the individual with visual impairment as being visually impaired.

Lahav and Mioduser (2000) share the view that in case of human guide and seating, the sighted individual indicates where the chair is by guiding the individual with visual impairment"s hand to the back of the chair. This simple tip will allow the individual visual impairment to determine the positioning of the chair for sitting. Moreover, personal assistants can be paid (formal) or unpaid (informal), family member or not, live-in, or independent provider or home care/home health agency employee. Personal assistants tend to be middle-aged, unskilled women or students who prefer erratic schedules. 26 Those who work for home care or home health agencies may have some training in basic personal care such as bathing and transferring. Independent personal assistants may or may not have some training (Jayasooria, Krishnan & Ooi, 1997).

2.4.5 Other mobility aids

Some of the more promising new mobility aids are: Talking Signs that transmit information to hand-held receivers which announce the location of important features such as public telephones, restrooms, street addresses, traffic signals, etc.; Portable Geographical Positioning systems (GPS) which let users know precisely where they are; Computerized City Maps which provide users with information on

how to get to their destinations and Canes that beep and/or vibrate to indicate objects not only at ground level but at waist and hand level.

These and many other new "high tech" mobility aids are constantly being developed and improved and this will revolutionize travel for persons with visual impairment. The two basic mobility aids that are still the most reliable and universally used are the white cane and the guide dog (Baldwin, 2013). Furthermore, Lippa, Golledge, Jacobson and Kitchen (2002) share the view that the Sonic Pathfinder is a device that is generally mounted on the user's head. It uses ultrasonic technology to detect obstacles and other objects that are located in front of the user's path.

The Sonic Pathfinder gives the user advance warning of objects which lie within the travel path and uses the musical tones to indicate the distance of the object. Each tone signifies a particular distance from the obstruction. The user hears the tones through the device's earpiece. The sonic pathfinder device is suitable for outdoor use. However, it may not be used in places with extremely loud noise. This device should be used with a cane or a guide or residual vision (Emerson & Corn, 2006).

Furthermore, Emerson and Corn (2006) explain that the Mowat Sensor is also used to locate signs, poles, pedestrians and other landmarks away from the travel paths. It is a device which utilizes sonar waves to provide obstacle detection information. As it detects a particular object, the device will vibrate. The vibration enables the user to identify that there is an object nearby. Certain handheld mobility devices produce a level of vibration depending on the distance of the object. A fainter vibration for a relatively far object and a stronger vibration to near one. These devices could be used with a cane (Kirk, Gallagher, Coleman & Anastasiow, 2008). The authors explained further that the Mowat Sensor is a small hand-held device that uses high frequency sound to detect objects within a narrow beam. The entire sensor

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vibrates if an object is present. To avoid confusion, the sensor responds only to the closest object within tile beam and the vibration rate increases as the user approaches the object.

Also, Hardman, Drew and Egan (2008) clarify that the Polaron as electronic travel aid is a compact aid that utilizes ultrasonic technology to detect objects within four to eight or sixteen feet. The Polaron may be used as a secondary aid to a standard long cane or with a guide dog when an obstacle is within range, the Polaron either vibrates or emits a sound.

A systematic review of the international literature was conducted by Roentgen, Gelderlom, Soede and de Witte (2009) to investigate the effects and effectiveness of electronic travel aids. Twelve out of thirteen studies reviewed demonstrated effects of the use of these devices and generally, users evaluated the devices" functionality as beneficial.

However, Philip and Todd (1999) opine that there is a severe shortage of orientation and mobility specialists and qualified teachers of visually impaired students, which restricts access to the specialized skills these children need. The author further emphasized that as a result, students with visual impairments frequently receive instruction from personnel who are not qualified to teach critical skills such as braille, cane and other orientation and mobility skills and effective use of available vision. This problem is amplified in rural communities where shortages of qualified personnel are most acute.

Besides, Wolffe, Sacks, Corn, Erin, Huebner and Lewis (2002) also, opine that most of the orientation and mobility needs of students with visual impairments are the responsibility of the certified orientation and mobility specialist which are not available in most countries in Africa. Children with visual impairments often must be

taught to explore and move around in space and to be aware of the environment around them. They must learn to use tactual, auditory and olfactory cues to identify their position in space and the relative position of other persons and objects around them. When working collaboratively, the resource persons can reinforce pre-cane travel and orientation skills introduced and monitored to students with visual impairment. But this is not seen in most schools in the third world (Wolffe et al., 2002).

2.5 Braille transcription services for students with visual impairments

Only about ten percent of persons who are blind read braille. For those who do however, providing print materials in a braille format can be very useful (Talbot, 2001).

Most braille transcription services require receipt of materials in advance of the date needed. Two weeks lead time is typical though transcription services may need even more advanced notice for complex material.

Most braille transcription services request that documents sent to the transcribers for transcription be provided in hard copy as well as on disk. This assist the transcriber in cross-checking for formatting and pagination. Materials that will be widely disseminated should be transcribed by a certified braillist to ensure quality (Talbot, 2001).

Braille translation software alone may provide adequate braille materials for simple informal use. Such software is usually not sufficient to handle formatting situations such as multiple columns or complex information. In all cases a competent braille reader should proofread all materials for accuracy and appropriateness before such materials are disseminated.

Giesen, Martin, Weber and Crews (2001) opine that braille transcribers have a tremendous impact on the education of blind and low-vision students. Transcribers allow blind and low-vision students to be on equal footing in the classroom. They provide them with the same information that their sighted peers receive but in the format they need. Braille textbook transcribers play an important role in helping students achieve their goals both now in their education and in their future endeavours (Moore, Giesen, Martin, Weber & Crews, 2001).

In addition, Wolffe (1999) postulates that the ability to access regular print is a critical aspect of a person's independence. For those with visual impairments, reading articles in a newspaper, directions on a medicine bottle or a recipe in a cookbook are all necessary skills for day-to-day living. Adapting those tasks for someone who is either unable to read print at all or who can only read large print is important in maintaining independence. This can be accomplished by using a wide array of accommodations including taped recordings, scan-and-read programs, screen readers for computers, portable braille devices, slate and stylus, use of braille writers and readers with the help of resource persons (Wolffe, 1999a).

Ntukiden, Asim and Emi (2005) asserted that facilities or equipment are grossly inadequate for most resource persons. Effective teaching and learning as well as a quality driven educational system cannot take place successfully without facilities or equipment such as cassette recorder, talking books, optical aids, optacon, bailers, typewriters and 30 enough space. The job of braille transcriber was established for the purpose/s of providing support to the instructional program with specific responsibilities for transcribing educational materials into alternative format (braille, large print, tape) for students with visual impairments responding to questions from students, parents, and/or staff regarding methodologies and available resources and

maintaining resource inventory for teachers and students. The position is system wide therefore the braille transcriber may report to one or more buildings as needed. Some essential functions of the braille transcriber are but not limited to;

- Assists with instruction given to students with visual impairments individually or in small groups as assigned for the purpose of facilitating students growth in academic areas.

- Assists other staff in the supervision of students during classroom and school activities (e.g. recess, lunch periods, field trips, co-curricular activities) for the purpose of ensuring a safe and productive environment.

- Assists students with assigned work for the purpose of reinforcing concepts and checking work for completeness and accuracy.

- Generates reverse braille translation for the purpose of providing transcription for use by sighted persons.

- Observes and records student performance and behaviour using appropriate behavioral techniques for the purpose of facilitating social and emotional growth.

- Operates large print copier for the purpose of reformatting materials to meet the needs of individual students.

- Prepares alternate format materials (e.g. recopy, replace pages, etc.) for the purpose of providing educational materials for students with visual impairment.

- Provides in-service training to other staff (e.g. regarding student‟s disabilities and mode of communication) for the purpose of complying with the student‟s IEP and to assist other staff become more effective in working with the student.

- Provides professional staff with input regarding child's progress or difficulties for the purpose of assessing what the child is learning.

- Responds to inquiries from a variety of sources (e.g. teachers, principals, student support services, staff, parents and students) for the purpose of providing information and/or direction as may be required.

- Transcribes educational materials into appropriate method (e.g. braille, large print, audio tape, CD, etc.) for the purpose of providing educational materials for student with visual impairment.

- Besides, much of the literature of the past decade has focused on braille literacy. Concerns have been raised that only 10-12% of legally blind students use braille as a reading medium (Schroeder, 1996; Shapiro, 1993). The concern however is misplaced. It is not braille literacy that is the issue, it is simply literacy most of students with visual impairment has difficulty brailing correctly without errors. This issue is connected to issues of caseload size, teacher shortages and the changing population of students identified with visual impairments many of whom have disabilities in addition to blindness.

Lastly, Shapiro (1993) also suggests that part of the literacy issue is related to a growing reliance on technology such as the over use of mobile phone although technology may also be viewed as contributing to literacy. Some research suggests a relationship between hours of specialized instruction in braille and academic subject competence (Ferrell, 1993). Past discussions of the issue often deteriorate into emotional arguments and more research is needed in order to identify both the factors that contribute to literacy and the source of statistics that seem to suggest the declining use of braille (Ferrell, 1993).

However, Shapiro (1993) asserts that students with visual disabilities must have assistive technologies that facilitate curriculum access. Curriculum access can be addressed effectively and efficiently by assuring that students have the appropriate tools: screen readers, screen magnification software, braille printers, personal digital assistants (PDAs) with and without braille displays and global positioning enhancements. But these tools are often expensive and the expense cannot be distributed among several students because they are adapted to meet an individual's needs. The hardest part of the technology puzzle has been simply to get new devices to the people who need them (Shapiro, 1993).

Lastly, Philip and Todd (1999) opine that the educational institutions should be made available with knowledge resources such as qualified instructors a modern and adequate information technology, infrastructure, maintenance and refurbishment of physical facilities.

2.6 Provision of services by resource persons to students with visual impairment

There is a critical need for educational personnel who are trained to meet the needs of students who are visually impaired. While the needs of students with visual impairments are intense, the population itself is comparatively small. In addition, a board may employ persons other than teachers to assist teachers in carrying out their responsibilities and duties.

Persons employed under subsection shall work under the direction of a teacher and the general supervision of a teacher or school principal. Teachers are expected to design programs for students with special needs. Teachers" assistants play a key role in many programs for students with special needs, performing functions which range from personal care to assisting the teacher with instructional programs. Under the

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direction of a teacher they may play a key role in implementing the program (Mercer, 2014).

In low incidence areas there has been a chronic shortage of teachers prepared to serve students with visual impairments a 1993 survey by Bowen and Klass reported that 49.4% of 233 respondents to a national survey indicated that their states were not meeting personnel needs in low incidence areas. Respondents to that survey also indicated that they expected a significant (Swallow, 1990). Increase in the numbers of teachers of visually impaired students prepared in 1990 (236 nationally) and a number to be prepared by 1993.

While teachers" assistants may assist in the collection of data for the purpose of evaluating student progress, the teachers are responsible for evaluating and reporting on the progress of the student to lecturers.

The resource teacher is usually the teacher designated to coordinate the student"s Program. In addition the resource teacher: Provides diagnostic assessment to determine student strengths and areas of need; generates ideas and suggestions for program modification and/or adaptations; provides advice about materials and resources; order materials from the Saskatchewan Learning Resource Centre and act as   liaison between the school and the Resource Centre; Plans and carries out instructional programs; Develops strategies for assessing and communicating student progress; Maintains ongoing communication with parents and other teachers; and Initiates and organizes support team meetings (Swallow, 1990).

Wolffe (1999) stated that the ability to access regular print is a critical aspect of a person's independence. For those with visual impairments, reading articles in a newspaper, directions on a medicine bottle or a recipe in a cookbook are all necessary skills for day-to-day living. Adapting those tasks for someone who is either unable to

read print at all or who can only read large print is important in maintaining independence and this is made possible with the assistance of resource persons.

In addition, this can be accomplished by using a wide array of accommodations, including taped recordings, scan-and-read programs, screen readers for computers, portable braille devices, slate and stylus, use of braille writers and readers (Wolffe, 1999).

The paraprofessional enlarges visual materials for students with low vision, prepare tactual materials and tape record information. If the student uses braille, it is ideal for the paraprofessional to learn braille and consider taking formal coursework/training to become a braille transcriber (Fazzi, 2001). The author further stated that the paraprofessional may read information (as needed and appropriate) when that information is not available in an accessible format, narrate a video, translate print to braille and braille to print and assist in ordering.

Ellen et al. (2007) who postulates that provision and rendering of disabilities services present unique challenges to the instructor because of various needs of the students which are not similar but different and based on the situation of each student. Although there is no single approach that can be applied to all the myriad and complex conditions that confront students with visual impairments or blindness and multiple disabilities, several strategies and techniques many of which are reported in the literature seem to prove beneficial (Ellen et al. 2007).

Papadopoulos in his work in 2015 examined the structure of active social networks of individuals with visual impairments, the social support they receive from their social networks and their satisfaction from received support. In addition, he examined these factors as predictors of happiness in people with visual impairments. A total of 96 individuals with visual impairments who ranged in age from 16 to 50

participated in this study. Three self-constructed questionnaires which included questions related to demographic data, social networks, social support and happiness were used in the study. Participants reported being satisfied with received support and they also appeared to receive more positive than negative support. Findings also demonstrated the merit of social support for the happiness of individuals with visual impairments.

Lawton in his work in 1994 studied the effect of the built environment on the elderly in society. The sample size for the study was 25. The sample used comprised 15 old men and women 5 middle aged ladies and 5 middle aged men. The snowball and purposive sampling procedures were used. He came to the conclusion that a poorly designed built environment can negatively affect the lives of the aged since their scope of architectural variables are very limited and that minute upgrading of the older persons" physical environment can significantly improve their lives. Hansen, (2000) argues that the same preposition holds for PWDs and that in both cases a well-designed environment has the potential to be therapeutic rather than disabling.

These findings however support the study in the sense that every student with visual impairment might have different needs as to the provision of services resource persons renders to them due to the fact that some have low vision and some totally blind. Therefore, an important outcome for various designs of support services to ease architectural disability and realize a greater measure of social equity and justice.

Hergart and Pocklington (1982) assert that the professionals working with individual with special needs must possess positive attitudes towards them. If their attitudes are not warm and inviting, they should reorient their attitudes toward people with special needs to enable the people with special needs to obtain maximum

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benefits from their services. Similarly, the people with special needs should adopt positive attitude in order to enhance cordiality and their support service providers.

Besides, as advocates for students with disabilities, support workers are positioned to take the lead in their buildings to ensure that these students have positive school experiences, develop skills for future academic and career success, develop social skills and enjoy emotional health. A number of programs could be initiated in an effort to address the training needs of school personnel and to facilitate positive interactions among all students. Besides, self-awareness is important, however school counselors can benefit from taking time to honestly assess their own beliefs and attitudes toward students with disabilities prior to accepting or volunteering to work on school-based interventions. School counselors who possess negative attitudes might consider participating in professional development activities (Milsom, 2006) to address their own biases because school counselors are responsible for meeting the needs of all students, comfort with and positive attitudes toward working with students with disabilities can be viewed as important qualities of a professional, ethical and multicultural competent school counsellor.

2.7 Other support services available for students with visual impairments

Adjustment to vision loss can be a slow and painful process. The length and difficulty will vary with each individual and will include several stages. Losing sight, even a mild loss, is much like other losses. It usually requires a grieving process including denial, anger, depression and finally coping. Experiencing these phases is normal however the process should not be allowed to go on too long. The sooner you take steps to accept and cope with your vision loss, the sooner you can resume your normal activities and maintain control over your life. The adjustment process can be

made easier and shorter with help from caring professionals and from others who have gone through the same process (Bohan & Chan, 2015).

Support groups are a wonderful source of inspiration. While providing strong emotional support, they also supply a great deal of useful information about resources available in the community and about coping strategies that have worked for others. Some support groups are focused on a specific condition such as diabetes or macular degeneration. Others are for anyone experiencing sight loss. Some groups include spouses or significant others while others are only for the individual (Bohan & Chan, 2015).

Whatever the design or make-up of the group, it is almost inevitable that good positive results happen from people coming together and sharing feelings and encouragement. Individual counselling is also available both from trained professionals and from peers. Larger agencies, such as the Braille Institute in Los Angeles, the Lighthouse for the Blind in San Francisco and the Society for the Blind in Sacramento as well as many of the smaller agencies provide a variety of counselling and support options (Bohan & Chan, 2015).

2.7.1 Independent living

The independent living (IL) effort arose in the late 1960's and early 1970's primarily as an expression of social discontent. Parallels and links can be drawn between this and other social movements of the time: those of individual rights, women's rights and civil rights.

People with disabilities demanded an end to the protective paternalism implicit in the medical model approach of rehabilitation and to the apathy displayed by society in exchange for the right to be self-reliant to live as they chose and to participate in community activities. They felt it preferable to risk failure than to forfeit

their dignity and freedom for the security of institutions (Crewe, Zola & Associates, 1983). Underlying the paradigm of independent living as described by these authors are three fundamental assumptions:

1. A person has the right to live in the least restrictive environment.

2. A person has the right to autonomy.

3. A person has the right to support for competency in daily tasks.

It also shook up uncritical assumptions about independence, such as the idea that disabled people should aspire to physical independence or self-reliance. Disabled people define independent living as a means to having meaningful choices and control over their own lives. Independent living means all disabled people having the same freedom, choice and control as other citizens at home, at work and in the community. It does not mean living by yourself or fending for yourself. It means right to practical assistance and support to participate in society and live an ordinary life (Independent Living in Scotland, 2012).

While arrangements for independent living can vary, they often involve direct cash payment to a disabled person in lieu of community care services. The disabled person is then able to employ their own personal assistants to support them with tasks they have prioritized, retaining self-determination and control over decisions in their life rather than becoming dependent on directly-provided services (Glasby & Little child, 2009). Social responses and frameworks are required to make this possible. Independent living is a cross-silo corporate issue concerning the whole of disabled people's interactions with society, its organizations, facilities and structures in every aspect of their quality and equality of life (Elder-Woodward, 2012).

The independent living movement locates independent living firmly within a human right agenda. Entitlement to independent living is enshrined in the UN Convention on the Rights of Persons with Disabilities (UNCRPD) and recognized by the UK Government. For disabled people the right to independent living, where it is shored up by adequate resource commitment means they can get on with their lives without having to negotiate continuous processes and obstacles imposed by society. Funding for independent living has completely changed my life. I now have a life again. Before going on to independent living I thought life had finished. I get out a lot more and all my daily requirements are met. What a remarkable change to my life and mental state (Lothian Centre for Inclusive Living, 2010).

However, despite significant promotion of the right to independent living by disabled people and their representative organizations in recent decades, real consolidation of automatic entitlement is hampered by competing majority interest in society. Any policy shift directing professionals to develop new assessments that continue to focus on limiting definitions of „needs‟ of disabled people cannot enable the radical changes necessary to eradicate the social barriers that create disablement. Funding cuts introduced as austerity measures have taken hold across Europe and have decimated allowances and services. Independent living for millions of disabled people is threatened unless critical questions about how and where their rights are met are confronted.

Elsewhere in the context of service delivery for health and social care, „personalization‟ is presented as the key to independent living for people with disability. Yet making personalization an aim for current changes in any sector such as community care, health, education, housing or accessible transport is likely to be reductive rather than progressing independent living. Arguably in the UK the rising

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personalization agenda obfuscates the goals of the independent living movement. Shifting attention to issues of individual benefit is not conducive to developing the wider vision of entitlement to independent living.

As Dodd (2013) states; to be clear by concentrating solely on personalizing services to individual needs, personalization holds the danger of taking the focus away from disabling barriers that affect all disabled people and obscuring possible alternative policy agendas.

Personalization and person-centered approaches have an important role to play in giving disabled people a say in their own lives including a say in the way organizations deliver services that will enable independent living. However, personalization policy can be deeply divisive and disabling if it is rolled out without clear direction to ensure the goal of independent living is not diminished. This concern explains why disabled people's organizations seeking routes to independent living fight to uphold a more ambitious entitlement agenda than the personalization agenda allows for. Independent living is not simply about addressing need; it strives to facilitate independent lives (Dodd, 2013).

It is also important to note that independent living is the outcome of much more than an individual service user's relationship with any particular services. The achievement of independent living requires the removal of barriers within services and across services. It demands innovative approaches to the creation of service responses which transcend organizational boundaries that frequently constrain service delivery and support. To forge a service sector which will facilitate independent living, every nuance of ideology, policy and practice has to be interrogated in response to what disabled people themselves say about what they feel will be effective and relevant for their choices regarding independent living (Dodd, 2013).

Independent living becomes the aim of service development, embedded in policies and operational strategies the aspirations of service providers change and broaden. This is because the focus is no longer on how a particular service responds to the needs of individual users. Wider consideration of how it responds to the whole lives of its community of users has come into play. Where transformation of services towards independent living is at its most enabling, disabled people's lives are not engaged with through a series of „person-cantered" interactions with individual services" (Dodd, 2013). They are viewed instead through a holistic lens that prioritizes not „what a service can offer in its own terms" but the desire for independence and freedom expressed by service users.

The goal of independent living is not subsumed within a personalization agenda and requires service providers to ally themselves with disabled people as agents of change. The idea of personalization has however gained power within UK social policy context so that while it is oppositional to notions of independent living it must be an idea assimilated rather than ignored (Morris, 1999). Finding ways to connect ideas about personalization of services and funding with social model thinking is vital to ensure practitioners do not find themselves eroding the core principles of control, choice and self-governance expressed in the key assumptions underpinning the philosophy of the independent living movement:

1. All human life is of value.

2. Anyone, whatever their impairment, is capable of exercising choices.

3. People who are disabled by society's reaction to physical, intellectual and sensory impairment and to emotional distress have the right to assert control over their lives.

4. Disabled people have the right to participate fully in society (Morris, 1999).

When independent living remains the goal, a discourse of personalization becomes meaningful and relevant to the process. In this context, service commissioning, management and planning can be approached confidently based on a shared understanding of independent living as the end product. This shared aim to minimize the distance between ideas about independent living and personalization is what will drive changes towards best practice in independent living for both service providers and disabled people.

To live an independent life, to have choice and control over one's life, is something wanted by most people, including disabled people. Perhaps the most important services the newly visually impaired individual needs are those directed to developing the skills of independent living. The importance of being able to take care of oneself cannot be overemphasized. People with visual impairment including totally blind people can and do perform the Activities of Daily Living (ADL) independently and competently. Even if you live in the home of another or in a group living situation, it is essential that you learn to take care of these functions yourself.

ADL include grooming and hygiene, meal preparation and clean-up, wardrobe and household management and handling of personal finances which includes paying bills, communication and medication management. Learning these skills may be challenging for persons with limited vision, but mastering them is central to the maintenance of self-esteem and self-direction (Bohan & Chan, 2015).

One of the major challenges you will face, as a newly visually impaired person is the ability to maintain control over the decisions affecting your life, such as where you will live. The more independent a visually impaired person is the more freedom you are likely to obtain as family members may rush to your side to help and protect you. They are well intentioned and acting from their love and concern. However, if their

efforts to assist you prevent or discourage you from pursuing the rigorous process of learning to be independent, neither you nor they will be satisfied with the results. You will not want to be treated like a child who cannot take care of himself/herself or make adult decisions. Others may get tired of the responsibility of meeting your basic needs. If both you and they adjust to your vision loss and you maintain your independence, all of your relationships will remain healthier and more satisfying (Bohan & Chan, 2015).

Learning independent skills is simply a matter of mastering alternative techniques for doing each task. Competent teachers can show you many ways to accomplish all of the ADL. There is ADL training available both from the Department of Rehabilitation (DOR) and from many private agencies for the blind ((Bohan & Chan, 2015).

The DOR has two kinds of programs designed to provide ADL training. The Counselor /Teacher (C/T) program provides services at or near the client"s home and the Orientation Center for the Blind (OCB) is a residential rehabilitation center dedicated to independent living for people with severe vision impairments ((Bohan & Chan, 2015).

The C/T program provides a variety of services which include daily living skills, home management, orientation and mobility, communication skills, business methods, counseling (personal and/or vocational) and special services, if needed. The C/T program can also purchase assistive devices that help a person function independently (Bohan & Chan, 2015).

The focus at the OCB is on the acquisition of new skills such as adjustment to new vision disabilities, adaptive skills and immersion in an atmosphere that is respectful and knowledgeable about the abilities of blind and visually impaired

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people. Participants live in dormitories for seven to nine months while attending daily classes that encompass all phases of independent living. This is an intense program designed to teach the person how to cope with sight loss and it has proven to be very effective in creating self-reliance and reducing dependence on family and friends.

Some critics of independent living have argued that it is an individualistic philosophy, that the focus on supporting individual people ignores the wider social and economic pressures facing disabled people. This claim ignores the whole culture of independent living. At the 1999 global summit on independent living mentioned above, delegates noted: The Independent Living Philosophy recognizes the importance of accepting responsibility for our own lives and actions and at the same time the importance of community to foster Independent Living (Holdsworth, 2000).

Achieving the social aims of independent living requires collective action. Independent living is developed through the self-organization of disabled people. The movement is based on collectively developed solutions to individually experienced barriers. The movement recognizes that many disabled people will not manage to achieve independence on their own, that the system we live in puts too many obstacles in the way. "The cornerstone of Independent Living Philosophy is control and choice. Systems advocacy is of ultimate importance because some choices for disabled people still need to be created" (Holdsworth 2000). This recognition that society needs to create choices for disabled people is one of the reasons disabled people have come together to set up their own organizations including centres for independent living.

As Adolf Ratzka (1992) notes: "Disabled people need to be in charge of their own lives, need to think and speak for themselves without interference from others." This is as true in organizations as it is in the lives of individuals.

Besides, Ocloo (2005) opines that Guidance and Counselling has been considered to be an integral aspect as most students with visual impairment really torment from serious psychological trauma. Such people usually feel dejected and traumatized. It is very significant to acquire the confidence of such traumatized persons through concerted relationship to know the ultimate interest in their affair. Counselling can take the form of advice on personal health and the desire to work in order to be self-supportive.

Lastly, Counseling thus becomes very crucial for those stigmatized to get over their dilemma and face the world in its new form. It is very necessary to sensitize the client to learn to live with the disabilities and to move along with others (Ocloo, 2005).

2.8 Challenges affecting the work of resource persons

Ntukiden, Asim and Emi (2005) asserted that facilities/equipment is grossly inadequate for most resource persons. Effective teaching and learning as well as a quality driven educational system cannot take place successfully without facilities/equipment such as cassette recorder, talking books, optical aids, optacon, brailers, typewriters and enough space.

Besides, much of the literature of the past decade has focused on braille literacy. Concerns have been raised that only 10-12% of legally blind students use braille as a reading medium (Schroeder, 1996; Shapiro, 1993). The concern, however, is misplaced. It is not braille literacy that is the issue, it is simply literacy most of the students with visual impairment have that is difficulty brailing correctly without errors. This issue is connected to issues of caseload size, teacher shortages and the changing population of students identified with visual impairment, many of whom have disabilities in addition to blindness.

Lastly, Shapiro (1993) also suggests that part of the literacy issue is related to a growing reliance on technology such as the over use of mobile phones. Although technology may also be viewed as contributing to literacy, some research suggests a relationship between hours of specialized instruction in braille and academic subject competence (Ferrell, 1993). Past discussions of the issue often deteriorate into emotional arguments and more research is needed in order to identify both the factors that contribute to literacy and the source of statistics that seem to suggest the declining use of braille.

Wolffe, Sacks, Corn, Erin, Huebner and Lewis (2002) who opine that most of the orientation and mobility needs of students with visual impairment are the responsibility of the certified orientation and mobility specialist who are not available in most countries in Africa. Children with visual impairments often must be taught to explore and move around in space and to be aware of the environment around them. They must learn to use tactual, auditory and olfactory cues to identify their position in space and the relative position of other persons and objects around them.

When working collaboratively, the resource persons can reinforce pre-cane travel and orientation skills introduced and monitored to students with visual impairment. But this is not seen in most schools in the third world (Wolffe et al., 2002).

The findings agree with Ellen et al. (2007) who postulate that provision and rendering of disability services present unique challenges to the instructor because of the various needs of the students which are not similar but different and based on the situation of each student.

Although there is no single approach that can be applied to all the myriad and complex conditions that confront students with visual impairments or blindness and

multiple disabilities, several strategies and techniques, many of which are reported in the literature, seem to prove beneficial (Ellen et al. 2007).

As stated earlier, "orientation and mobility are the fundamental challenges in making visually impaired students independent on campus" (Long 1990). Concerning the independent functioning of visually impaired students on campus, all visually impaired students are compelled to familiarize themselves with their new rooms and the short routes to and from the rest rooms as soon as they arrive on campus.

After successful registration by students with visual impairments at the beginning of the academic year, the instructor completes the assessment forms that include personal details and the medical and disability history of the visually impaired students (Anthony 1993).

The purpose of this is to have on record information about the health situations of the students in order to know how to respond to any eventuality should they occur. The record will provide guidance on what and how to take care of the affected student. Provision and rendering of disabilities services present unique challenges to the instructor because of various needs of the students which are not similar but different and based on the situation of each student (Anthony 1993).

Although there is no single approach that can be applied to all the myriad and complex conditions that confront students with visual impairments or blindness and multiple disabilities, several strategies and techniques, many of which are reported in the literature, seem to prove beneficial (Ellen et al. 2007). During O&M practices, one of the methods used is to ensure that students maintain physical contact with the environment. This "helps in concept-building and orientation and also provides a necessary sense of security" (Perla and O'Donnell 2004: 47). The instructor usually enlists the cooperation and support of the students and work together with them to

develop the training programme. The programme is designed in such a way that it does not interrupt the students" lectures (Hazekamp and Huebner 1989). Training starts as soon as the programme is finalized. However, training is usually prolonged because it is the first time that the student will be exposed to such skill training.

The training programme includes sighted guide skills, pre-cane, cane techniques, street crossings and routes to and from the lecture halls (Lahav and Mioduser 2002). The instructor works after hours and on Saturdays because of the demand and the yearly increase in the admission intake of visually impaired students registering at the University (Jacobson 1993). The necessity of attending lectures also contributes to the need for after-hours training. Most of the students still embrace the habit of using their self-taught cane techniques. Training about the university environment is a continuous process because of the constant changes in the lecture venues. These activities and services being provided by the instructor are practical.

2.9 Summary of the literature review

Literature was reviewed on four variables conceptualized in the study as support services for students with visual impairments. Several studies which formed part of the review acknowledged that orientation and mobility services, transcription services, resource persons" services and other related services were vital to the attainment of support services for students with visual impairments. It was found that a number of barriers exist that make the realization of other related services for students with visual impairments somehow difficult, even though knowledge about such services abound. Again, the attitude of resource persons towards the students with VI was found to be generally positive even though resource persons were insufficient to the ratio of students with VI. Also, the review revealed that there is a

dearth of literature on O&M Instruction and the guide dog among students with VI a

gap which has been filled by this study

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methods used for the study. The areas covered are research approach, research design, population, sample size, sampling technique, instrumentation, procedure for data collection, validity and reliability, ethical considerations and the methods of data analysis.

3.2 Research approach

The researcher adopted the qualitative approach in conducting the study. Qualitative research is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible (Merriam, 1998). Qualitative research is based on the view that reality is constructed by individuals interacting with their social world (Merriam, 1998).

The second characteristic of all forms of qualitative research is that the researcher is the primary instrument for data collection and analysis. Data are mediated through this human instrument, the researcher, rather than through some inanimate inventory, questionnaire or computer. A third characteristic of qualitative research is that it usually involves field-work. The researcher must physically go to the people, the setting, site, institution (the field) in order to observe behaviour in its natural setting. The fourth characteristic is that qualitative research primarily employs an inductive research strategy. That is, the type of research builds abstractions, concepts, hypotheses or theories rather than testing existing theory.

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Finally, the product of a qualitative study is richly descriptive. It uses qualifying words in great detail and in many cases language provides a very sensitive and meaningful way of recording human experience (Merriam, 1998).

This study aims to establish the support services for students with visual impairments at the University of Education, Winneba. The researcher did not approach the study with preconceived ideas of expected outcomes but was instead aiming to discover the support services of students with visual impairments at UEW. The research approach therefore reflects a naturalistic and interpretive focus in its approach to the research questions, data collection procedures and later the analysis of data.

The link between qualitative research and a naturalistic research site is highlighted in the following quote from (Denzin & Lincoln, 2005). Qualitative research is multi-method in focus involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meaning people bring to them.

This study has the University of Education, Winneba as the context in which the investigation is rooted. Thus, the underpinnings of the research approach in this study may be located in the "naturalistic paradigm" (Patton, 2002).

3.3 Research design

The research design adopted for the study was a case study. According to Yin (2009), case study is in many ways the most appropriate format and orientation for school based research. According to Ary, Jacobs and Razavieh (2002), case study investigates a single individual or a single discrete social unit such as a family, club, social institution, community and it affords the researcher to gain in-depth understanding of their world. This approach can be defined as an empirical inquiry

which involves an in-depth exploration of a phenomenon in its real-life context through an extensive data collection (Creswell, 2007). A case study approach was chosen to help achieve the purpose of the study which is to explore support services available to the students with visual impairments students at the University of Education, Winneba.

Also, the approach allowed the use of interview as an instrument to gather data from participants in their natural settings for the achievement of the purpose and the objectives of the study.

3.4 Population

The population for the study was 60 under graduate students with visual impairments at UEW comprising 47 males and 13 females. The number of students with low vision was 18 and the number of students who were blind was 42. The students were in the Departments of Special Education (SPED), Social Studies, English, Political Science, History, French and Guidance and Counseling. Additionally, all Resource Persons from the resource center for student with special needs formed part of the population (Resource Center for Students with Special Needs, 2016).

3.5 Sample size

Sample refers to a group on which information is obtained (Creswell, 2005). The sample size for the study was eleven (11) participants comprising five (5) male students and three (3) female students with blindness and low vision respectively at UEW and three (3) resource persons. Four (4) of the participants were from the Department of Special Education, two (2) from the Social Studies Department, and two (2) from the department of Guidance and Counselling. Two (2) students each

were chosen from each level that is level 100 to 400. The students were chosen from all the levels because they were accessible and could give relevant data for the study.

3.6 Sampling technique

Convenience sampling was used to select 11 sampled for the study. This was made up of 5 male students and 3 female students with visual impairment at UEW and three (3) resource persons. Convenience sampling (also known as availability sampling) is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study. Questions can be mentioned as a popular example for convenience sampling (Saunders, Lewis & Thornhill, 2012).

Saunders, Lewis and Thornhill (2012) Convenience sampling is a type of sampling where the first available primary data source will be used for the research without additional requirements. In other words, this sampling method involves getting participants wherever you can find them and typically wherever is convenient. In convenience sampling no inclusion criteria identified prior to the selection of subjects. All subjects are invited to participate (Saunders, Lewis & Thornhill, 2012).

3.7 Instrumentation

In this study, interview was used as an instrument for data collection. This tool was considered because it was appropriate for the case study design. It offers the researcher the opportunity to gather pertinent data about the cases involved in the study (Babbie, (1990). Gall, Borg and Gall (1996) state that in a case study, the researcher is the primary measuring instrument and this means that she carries out data collection and become primarily involved in the phenomenon being studied. The

researcher goes directly to the particular setting in which he/she is interested to observe and collect data (Tashakkori & Teddie, C., 2003).

3.7.1 Interview

A semi-structured interview guide was designed for participants. The items were designed to cover the key themes raised in the research questions. Interview is the method that was be used to collect data in this study. The choice of this instrument was influenced by its descriptive and interpretive paradigms of a case study. Interviews can be described as a form of conversation between two or more people (Avoke, 2005). As Gall et al. (2007) also stated, the advantage of interview is its adaptability because skilled interviewers make an effort to build trust and rapport with respondents thus making it possible to obtain information that the individual probably would not reveal by any other data collection method and also can follow up a respondent's answer to obtain more information and clarify vague situations. Eight students with visual impairments from their various departments at different levels were interviewed. These students from different levels were chosen in order to ascertain all the information on support services pertaining to each level. Interview guides with list of questions was prepared before the field study.

3.7.2 Procedures for data collection

Before data was collected, the researcher obtained an introductory letter from the head of Department of Special Education, Winneba. A pre-visit was then made to the resource centre for student with special needs to book with the resource persons. The purpose of the study was explained to the head of department (SPED) and the students with visual impairments before availing themselves for the interview.

Scheduled meetings were communicated to the participants" days ahead of time. The researcher personally conducted the interviews using the semi-structured type.

3.8 Validity

Validity refers to the extent to which the research instrument serves the use for which it is intended (Seidu, 2006). The instrument was first scrutinized by the supervisor for the suitability of the items. All the necessary corrections in the items were made and declared valid by the supervisor. This was done to establish content validity. To obtain accurate data, the interview data was tape-recorded.

3.8.1 Reliability

Reliability of a study instrument is the consistency of the instrument in producing the same or similar results given the same condition on different occasions (Seidu, 2007). To ensure the reliability of the data collected, the transcribed interviews was given back to the students and resource persons to cross check their views expressed during the interviews from which the necessary corrections was done. These procedures was done to help increase the degree of reliability of the study.

3.8.2 Ethical consideration

In research, ethical issues are of high relevance and therefore require due concerns. The ethical concern in research is about creating a relationship which upholds mutual respect and responsibility, in which participants are pleased to candidly respond in order to obtain valid results.

Considering the above, the researcher sought approval by personally meeting with participants and explaining the purpose of the study to them. Verbal assurances of confidentiality and anonymity were also given to the participants before the

commencement of the data collection. Participants were also informed of the right to withdraw from the study at any point in time if they deemed it necessary.

3.9 Data analysis

After the data collection, the interview made was transcribed and noted on a paper based on the code for each interview. After the thematic contents were formulated based on the research questions. Finally, the information gathered was grouped together and analyzed under each thematic content and discussed with the findings of other related studies. Verbatim expressions of the participants were used where necessary.

CHAPTER FOUR

ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the analysis and discussion of findings of the study which aimed at investigating the support services available to students with visual impairments at the University of Education, Winneba. The research questions were used as a guide for the analysis of the data.

The data were analyzed to answer the following research questions:

1. What orientation and mobility services are provided to the students with visual impairments at UEW?

2. What is the nature of transcription services provided to the students with visual impairments at UEW?

3. What are the challenges affecting the provision of support services to student visual impairment at UEW
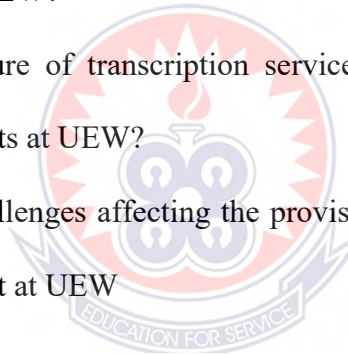
4.2 RQ 1: What orientation and mobility services are provided to the students with visual impairments at UEW?

Orientation and mobility are vital skills that enable students with visual impairment to interact with their community. Therefore, giving mobility and orientation to students with visual impairment is very paramount. The following sub-themes were derived: benefits of orientation and mobility, techniques trainers employ during orientation and mobility, challenges faced during orientation and mobility training and suggestions for improving orientation and mobility services.

4.2.1 Orientation and mobility service and their benefits to students with visual impairments

Assisting students with visual impairment with orientation and mobility is very vital in their daily activities.

One student remarked that

Personal assistants as an O and M service are people who provide aid to people with disabilities so they can perform their daily task with less restrictions. With the skills of orientation and mobility, it helps us to locate important places such as resource rooms, canteens, offices and places of convenience (student A).

Another student commented that:

Comment of another student is worthwhile here:

O & M specialist's services as well as the use of the white cane are also provided to us. The acquisition of orientation and mobility help us to socialize with both our colleagues and lecturers which is very vital in our education here (student C).

The resource persons admitted that orientation and mobility is very vital in the life of students with visual impairment in the university here,

The skills the students get from orientation and mobility such as the use of white cane help the students with visual impairment to locate important places such as resource rooms, canteens, offices, places of convenience and other importance places in the university (comment from Teacher).

From the above, it is clear that orientation and mobility help students with visual impairment to locate importance places such as resource rooms, canteens, offices and places of convenience. It was also noted that orientation and mobility help students with visual impairment to socialize with both their colleagues and lecturers.

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This finding is in line with Wolffe (1999) who contends that orientation and mobility (O & M) training is an important skill that allows a visually impaired person to safely access his or her environment, both indoors and outdoors. The sighted guide technique, the use of the white cane and the dog guide training are all adaptations a person who has visual impairment can use to access their environment.

Besides, Corn and Sacks (1994), assert that, orientation and mobility is one of the most important tools a person with a visual impairment will receive. The orientation and mobility techniques help client learn to become independent in most of their lives.

Lastly, Maxson (1997), opines that this orientation and mobility training needs to include navigation of the public transit system if there is one available where the person lives. The author further stated that to establish reliable means of transportation will assure maximal independence.

4.2.2 Techniques trainers employ for orientation and mobility

Techniques for teaching orientation and mobility are vital in helping individual with visual impairment to move around their community. With regard to this sub-theme, the students expressed their views. For instance, three of the students remarked as follows:

Even though we have learnt a lot of techniques for orientation and mobility the common one we have being witnessing here is the white cane technique. (Student A).

Another student intimated:

One of the courses we offered require training in orientation and mobility so all of us irrespective of once disability practiced with the help of white cane. (Student B).

The view of one student is noteworthy here:

"Well for me I came late as in I was admitted late so when I came there was no orientation for me. I only familiarized myself with the environment by resorting to my daughter I came to school with. She has been assisting me to move about on campus here. (Student C).

One student remarked as follow:

Just as my colleagues have said we were all oriented upon admission into the institution in our first year but no such orientation was given to us in our various departments. The same goes for mobility services as well. There was no formal training on mobility. We all resorted to friends and resource persons when we needed help with mobility services (Student D).

It was evident from the comments of respondents that during orientation and mobility services even though there are many techniques they can use, they employed techniques such as the white cane and the human being. This finding is consistence with Baldwin (2003) who said the long cane is meant to provide advance information about the surface and any obstacles in front of the user; it is not meant for support or balance. Also, Malghaes, Sankako and Braccialli (2014) opine that orientation and mobility specialists provide direct instruction and consultation for young blind and children with visual impairment (infants, toddlers and pre-schoolers) and their families. Early O&M intervention may emphasize the following areas: sensory awareness, concept development, environmental exploration, safe and efficient movement.

Moreover, personal assistants can be paid (formal) or unpaid (informal), family member or not, live-in or independent provider or home care/home health agency employee. Personal assistants tend to be middle-aged, unskilled women or

students who prefer erratic schedules. Those who work for home care or home health agencies may have some training in basic personal care such as bathing and transferring. Independent personal assistants may or may not have some training (Jayasooria, Krishnan & Ooi, 1997).

Besides, as long as there have been people with disabilities, there have been personal assistants. Typically, these services have been provided informally in the home by the family or, more recently and more formally, in institutions and nursing homes (Jayasooria, Krishnan & Ooi, 1997).

Baldwin (2013) indicated that some of the more promising new mobility aids are: Talking Signs that transmit information to hand-held receivers which announce the location of important features such as public telephones, restrooms, street addresses, traffic signals, etc.; portable geographical positioning systems (GPS) which let users know precisely where they are; computerized city maps which provide users with information on how to get to their destinations; and canes that beep and/or vibrate to indicate objects not only at ground level but at waist and hand level.

4.3 RQ2.What is the nature of transcription services provided to the students with visual impairments at UEW?

To answer this question, staff at the Resource Centre for Students with Special Needs (RCSSN) at the University of Education, Winneba were interviewed on issues related to the nature of transcription services provided to the students with visual impairments.

4.3.1 Nature of transcription services

The major theme that emerged from the interview was the nature of transcription services provided by the staff of RCSSN. Under this theme, it was found that they key issue bothered on the work of the resource persons and also the nature and form of the service provision.

One of the resource persons remarked that:

As a resource person, transcription has to do with conversion of a representation of language to another representation. So, what I did for students with visual impairment is to get the content of their courses and emboss for them. (Verbatim expression by resource person A).

Another staff noted that:

My work as a resource person was to braille. I transcribe for lecturers especially during examination. I also got the soft copy of their notes and transcribe into hard copy for the students with visual impairments. (Verbatim expression by resource person B).

Again, one of the staff at the Resource Centre stated that:

"*I embossed scripts, did recordings and did audio formatting for students with visual impairments*". (Verbatim expression by resource Person C).

The responses of the three resource persons showed that the students with visual impairment received transcription services from the resource centre in the form of braille embossment and audio recordings of academic materials for the students with visual impairment and lecturers also.

The responses showed that the services provided are in agreement with Talbot"s (2001) list of services that should be provided to students with visual impairments by resource Persons.

Talbot points out that resource persons should generate reverse braille translation for the purpose of providing transcription for use by sighted persons. This is consistent with the comment by resource person B, noting that learners benefit from transcription services.

Also, the preparation of alternate format materials (e.g. recopy, replace pages, etc.) for the purpose of providing educational materials for students with visual impairment is one of the functions of a resource person (Talbot, 2001) which is performed by the resource centre, as indicated by resource person C. This implies that the transcription services provided to students with visual impairments at the University of Education, Winneba were well within the scope of accepted standards.

This conclusion was reached when it emerged that transcription services provided by the resource centre were all geared towards the provision of educational materials in appropriate formats (e.g. braille, large print, audio tape, CD) for students with visual impairment.

4.3.2 Benefits students with visual impairment derive from transcription services

The respondents noted that resource services are very vital to the student with visual impairment in the studying area especially the university institution.

A respondent commented that:

*Through transcription students are able to get vital information they need for their course of study. Most materials they need for the programme have been transcribed for easy accessibilit*y (Resource person A).

Another respondent also remarked that:

Transcription is a medium through which students with visual impairment express their views on papers for assessment purposes. Through transcription lecturers are

able to ascertain the strength and weakness of students with visual impairment. (Resource person B).

The students admitted that the services of transcribers are very imperative as far as their studies are concerned.

One student remarked that,

Transcription enables us to get vital information we need for our study here. Most materials we need for our programme have been transcribed for easy accessibility (student A).

Another student remarked that

Through transcription lecturers are able to assess our strength and weakness which enable them to have hope in us (student B).

Based on the assertions made by the respondents, students who are visually impaired derived a lot of benefits from resource services. These included transcribing materials the students with visual impairment need for the programme for easy accessibility. Vital information is obtained through transcription. Besides, lecturers are able to assess the strengths and weaknesses of students with visual impairment.

Moore, Giesen, Martin, Weber and Crews (2001) opine that braille transcribers have a tremendous impact on the education of students who are blind and low-vision. Transcribers allow students who are blind and low-vision to be on equal footing in the classroom. They provide them with the same information that their sighted peers receive but in the format they need. brailled textbook transcribers play an important role in helping students achieve their goals both now in their education and in their future endeavours (Moore et al, 2001).

In addition, Wolffe (1999) postulates that the ability to access regular print is a critical aspect of a person's independence. For those with visual impairments, reading

articles in a newspaper, directions on a medicine bottle or a recipe in a cookbook are all necessary skills for day-to-day living.

Adapting those tasks for someone who is either unable to read print at all or who can only read large print is important in maintaining independence. This can be accomplished by using a wide array of accommodations including taped recordings, scan-and-read programs, screen readers for computers, portable braille devices, slate and stylus, use of braille writers and readers with the help of resource persons (Wolffe, 1999).

The author further stated that the use of other adaptive equipment such as voice activated personal data assistants, notebook computers and screen enlargers are other adaptive options and are becoming increasingly necessary as technology advances. These basic skills of adaptive reading and writing are typically included as part of an adjustment to blindness training program provided by the resource person.

Besides, Sacks, Lueck, Corn and Erin (2005) assert that the paraprofessional may assist with guided practice and review previous lessons and assist with new activities or routines until they are mastered. The author further stated that the paraprofessional may read information (as needed and appropriate) when that information is not available in an accessible format, narrate a video, translate print to braille and braille to print, assist in ordering materials and keep an inventory of materials.

RQ3: What are the challenges affecting the provision of support services to students with visual impairment at UEW?

4.4 Challenges faced during orientation and mobility training

Orientation and mobility is beseeched with some setbacks. With regard to this sub-theme, the respondents expressed their views.

In the view of one respondent:

There is no orientation and mobility specialist for students with visual impairment, which restricts access to the specialized skills these students need. As a result, students with visual impairment frequently receive instruction from personnel who are not qualified to teach orientation and mobility skills (Resource person A).

Another resource person remarked:

We are not many here so it will be difficult if we are to combine our work with orientation and mobility training. It will put more pressure on us and therefore we cannot perform our core duty which is brailing and transcribing well. Besides there is no resource room for students with special needs at UEW and this places limitation on our work as resource personnel (Resource person B).

Third respondent commented:

There are few resource materials such as embossers and braille machines which make our work very tedious. Also, our staffing strength is very few therefore we cannot combine orientation and mobility service with our work it will be too much (Resource person C).

Students also confirmed what the resource persons said

One student stated that:

There is no orientation and mobility specialist for students with visual impairments which restricts access to the specialized skills we need. As a result, we do not have instructions frequently from personnel who are not qualified to teach orientation and mobility skills (Student 1).

Another student remarked:

The resource persons are not many here so it will be difficult if they are to combine their work with orientation and mobility training. It will put more pressure on them and therefore they cannot perform their core duty which is brailing and transcribing well (Student 2).

Third respondent commented:

The staffing strength is very few therefore they cannot combine orientation and mobility service with their work it will be too much for them (Student 3).

It was also evident from the comments of respondents of both students and resource persons that despite benefits students with visual impairment obtain from mobility and orientation such as white cane technique and personal assistance techniques, there are some factors militating against the smooth provision of these vital services to them. These problems include few resource materials, inadequate personnel, lack of resource room for students with special needs, inexperience personnel and lack of orientation and mobility specialist to help execute the service well.

This finding is consistence with Wolffe, Sacks, Corn, Erin, Huebner and Lewis (2002) who opine that most of the orientation and mobility needs of students with visual impairment are the responsibility of the certified orientation and mobility

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specialist who are not available in most countries in Africa. Children with visual impairments often must be taught to explore and move around in space and to be aware of the environment around them. They must learn to use tactual, auditory and olfactory cues to identify their position in space and the relative position of other persons and objects around them.

When working collaboratively, the resource persons can reinforce pre-cane travel and orientation skills introduced and monitored to students with visual impairment. But this is not seen in most schools in the third world (Wolffe et al., 2002).

4.5 Suggestion to improve the services resource persons provide to students with visual impairment

Suggestions on how to enhance the other services provided by resource persons at the resource center was another sub theme that emerged from this theme. A resource person suggested that:

Education will help them to know and play their roles very well. Regular education to both students and lectures will enable them understand their role they are expected to play to enhance the education of the student with visual impairment in order to make their staying here a success (Resource person A).

Another resource person suggested that,

Attitudinal change of both students and some lecturers will help put them on their toes and do what is expected of them. This will help improve our work (Resource person B).

One resource person commented that:

Regular in-service programme and refresher courses should be organized regularly for us to help discharge our duties diligently (Resource person C).

Again, another resource person remarked as follows:

Provision of adequate space to cater for the large number of students with visual impairment during quizzes and other form of examination will help make our work less cumbersome (Resource person D).

Another resource person remarked that:

The staffing strength should be given a boost because the current staffing strength is very less; therefore, if the authorities try and add some hands to us it will help minimise the pressure we encounter especially during examination period (Resource person E).

Responses captured from the resource persons suggested that regular education to both students and lecturers will enable them understand their role they are expected to play to enhance the education of the student with visual impairment in order to make their staying here a success. Besides, it could be deduced that provisions of adequate space, regular in-service programme and refresher courses are provided, it will help improve the resource work at the resource centre.

Also, attitudinal change of both students and some lecturers will help put them on their toes and do what is expected of them. The findings agree with Hergart and Pocklington (1982) who assert that the professionals working with individual with special needs must possess positive attitudes towards them. If their attitudes are not warm and inviting, they should reorient their attitudes toward people with special needs to enable the people with special needs to obtain maximum benefits from their services. Similarly, the people with special needs should adopt positive attitude in order to enhance cordiality with their support service providers.

Besides, as advocates for students with disabilities, support workers are positioned to take the lead in their buildings to ensure that these students have

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positive school experiences, develop skills for the future, academic and career success, develop social skills and enjoy emotional health. A number of programs could be initiated in an effort to address the training needs of the resource persons and to facilitate positive interactions among all students.

Besides, self-awareness is important, however school counsellors can benefit from taking time to honestly assess their own beliefs about attitudes toward students with disabilities prior to accepting or volunteering to work on school-based interventions. School counselors who possess negative attitudes might consider participating in professional development activities (Milson, 2006) to address their own biases.

More so, Philip and Todd (1999) opine that the educational institutions should be made available with resources such as qualified instructors, a modern and adequate information technology, infrastructure, maintenance and refurbishment of physical facilities, the provision of special educational facilities and devices such as optical aids, brailers, typewriters etc; the availability of mobility equipment such as guide dogs, path sounders and laser canes.

The data presented and analysed in this section shows that resource persons at the resource centre provided vital services such as helping students with visual impairment to get accommodation, orientation and mobility services, remedial services, guard services and counselling services. These services are provided to the students with visual impairment to enhance their stay on campus.

It was also obvious that the resource persons encounter challenges such as uncooperative attitude of some lecturers and space to contain all the students with visual impairment during class work and examinations. Even though, the resource person at the centre encounter some difficulties during their work, if provision of

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adequate space, regular in-service programme and refresher courses are provided, it will help improve the resource work at the resource centre.

The data presented and analysed in this section indicates that students with visual impairment benefit from remedial services; they also get learning materials in accessible form and through the provision of other services help students with visual impairment get accommodation.

However, the resource persons face the problem of inadequate embossers and uncooperative attitude of some lecturers. Nevertheless, regular education to both students and lecturers will enable them understand their role they are expected to play to enhance the education of the student with visual impairment in order to make their staying here a success. Also, attitudinal change of both students and some lecturers will help put them on their toes and do what is expected of them.

4.6 Suggestions for improving orientation and mobility services

Even though there were some setbacks militating against orientation and mobility services, those setbacks could be minimized so that the student can enjoy the full benefits of orientation and mobility.

In the view of one respondent.

There should be orientation and mobility specialist to help train students with visual impairment to enable them enhance their daily activities (Resource person A).

Another resource person remarked:

The staffing strength at the resource center should be increased in other to train some to cater for orientation and mobility for students with visual impairment in the department (Resource person B).

The view of one respondent is noteworthy here:

Variety of equipment for orientation and mobility should be made available in the resource center to help in the training of orientation and mobility skills to deserving students (Resource person C).

From the above analysis, it is clear that in order to enhance orientation and mobility service at the resource center of UEW, there should be orientation and mobility specialist and equipment for orientation and mobility should be made available. Also, the staffing strength at the resource center should be given a boost.

This is in conformity with Philip and Todd (1999) who opine that there is a severe shortage of orientation and mobility specialists and qualified teachers of visually impaired students, which restrict access to the specialized skills these children need.

The author further emphasized that as a result, students with visual impairments frequently receive instruction from personnel who are not qualified to teach critical skills such as braille, cane and other orientation and mobility skills and effective use of available vision. This problem is amplified in rural communities where shortages of qualified personnel are most acute.

The data presented and analysed in this section shows that orientation and mobility help students with visual impairment to locate importance places such as resource room, canteen, offices and place of convenience. It was also noted orientation and mobility help students with visual impairment to socialize with both their colleagues and lecturers.

Besides, it was evident from the analysis that during orientation and mobility services even though there are many techniques they can use, they employed

techniques such as the white cane and the human being. It was also evident that despite benefits students with visual impairment obtain from mobility and orientation there are some factors militating against the smooth provision of these vital services to them. These problems include small staffing strength in the resource centre and lack of orientation and mobility specialist to help execute the service well.

Lastly, it is clear that in order to enhance orientation and mobility service at the resource centre at UEW, there should be orientation and mobility specialist and equipment for orientation and mobility should be made available. Also, the staffing strength at the resource centre should be given a boost provision of adequate space, regular in-service programme and refresher courses which will help improve the resource work at resource centre.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions, recommendations and suggestions for further studies based on the findings from the study.

5.2 Summary

The study explored the support services provided to students with visual impairments at the University of Education, Winneba. Based on this, the study specifically sought to find out:

1. Orientation and mobility services provided to the students with visual impairments at UEW

2. The nature of transcription services provided to the students with visual impairments at UEW?

3. What are the challenges affecting the provision of support services to students with visual impairment at UEW?

The study was a qualitative research that employed case study as a design. The population of interest was 60 students with visual impairments at UEW and resource persons.

Data was collected using semi-structured interview from a sample of eleven (11) respondents, comprising eight (8) students with visual impairments and three (3) resource persons who were purposively sampled. The data was analyzed thematically and the findings were observed:

It was found out that during orientation and mobility services even though there are many techniques they can use, they employed techniques such as the white

cane and the human being. Again, the study also found that the students with visual impairment receive transcription services from the resource centre in the form of braille, embossment and audio recordings of academic materials for the students with visual impairment. It was also clear that students who are visually impaired derive a lot of benefits such as transcribing materials and other lecture note. Vital information is obtained through transcription. Lecturers are also able to assess the strength and weakness of students with visual impairment.

Moreover, the resource persons at the resource centre provide vital services such as helping students with visual impairment to get accommodation, orientation and mobility services, remedial services, guard services and counselling services are provided to the students with visual impairment to enhance their stay on campus.

However, there are some challenges affecting the work of resource persons at UEW, it was also obvious that the resource persons encounter challenges such as uncooperative attitude of some lecturers and rooms to contain all the students with visual impairment during class work and examinations.

Again, few resource materials for student with special needs, lack of resource room for students with special needs, inadequate staffing strength at the resource center and lack of orientation and mobility specialist to help execute the service well were some challenges identified to affect resource work. Besides, it is clear that in order to enhance orientation and mobility service to the resource center of UEW, there should be orientation and mobility specialist and equipment for orientation and mobility training. Also, the staffing strength at the resource center should be given a boost.

5.3 Conclusions

This study concluded that support services for students with visual impairment at the UEW were somewhat positive. Orientation and mobility skills helps students with visual impairment to locate places. Again. Orientation and mobility skills help students with visual impairment to socialize with both their colleagues and lecturers. Students receive transcription in the form of braille. Lastly. Resource persons provide academic and social support for students with visual impairments.

The researcher concluded that the University authorities should try as much as possible to make available orientation and mobility specialist and equipment for orientation and mobility training. Also, the staffing strength at the resource centre should be given a boost beside the provision of adequate spacing, regular in-service programme and refresher courses to help improve the resource work at the resource centre.

5.4 Recommendations

The following recommendations were made in the light of the findings of the study:

The authorities of University of Education, Winneba should ensure that orientation and mobility specialist and adequate equipment for orientation and mobility training are made available in order to enhance orientation and mobility services. Also, the staffing strength at the resource centre should be given a boost. Besides, there should be provision of adequate space, regular in-service programme and refresher courses to help improve the resource work at the resource centre.

The authorities of University of Education, Winneba should make conscious effort to teach braille writing to students with visual impairment to help minimize poor and writing, grammatical errors the students made during brailing besides the

staffing strength should be looked at to address the problem of inadequate brailist during the transcription of the work of students with visual impairment.

The authorities of University of Education, Winneba should make provision of adequate spacing, regular in-service programme and refresher courses to help improve the resource work at the resource centre.

The authorities of University of Education, Winneba should organize regular education to both students and lecturers to enable them understand their role they are expected to play to enhance the education of the student with visual impairment in order to make their stay on campus a success. Also, the attitudinal change of both students and some lecturers will help put them on their toes and do what is expected of them.

5.5 Suggestions for further research

The following area is suggested for further research: Approaches for facilitating the provision of resource services for students with visual impairment at the University of Education, Winneba.

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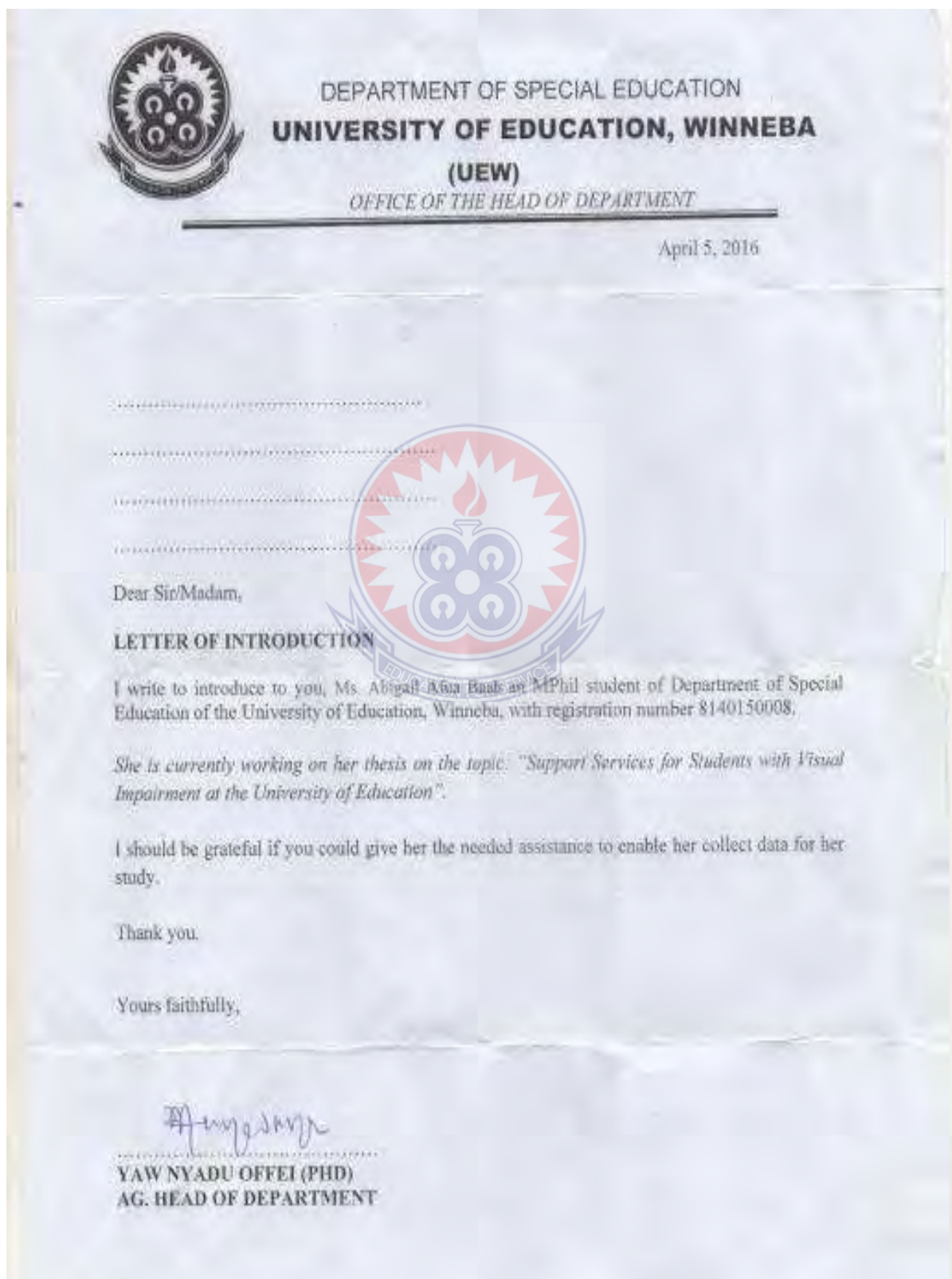
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APPENDICES

APPENDIX A

DEPARTMENT OF SPECIAL EDUCATION

UNIVERSITY OF EDUCATION, WINNEBA

(UEW)

OFFICE OF THE HEAD OF DEPARTMENT

April 5, 2016

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Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you, Ms. Abigail Afua Baah an MPhil student of Department of Special Education of the University of Education, Winneba, with registration number 8140150008.

She is currently working on her thesis on the topic: "Support Services for Students with Visual Impairment at the University of Education".

I should be grateful if you could give her the needed assistance to enable her collect data for her study.

Thank you.

Yours faithfully,

YAW NYADU OFFEI (PHD)
AG. HEAD OF DEPARTMENT

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APPENDIX B

This interview is **INTERVIEW GUIDE FOR STAFF AT THE RESOURCE CENTRE FOR STUDENTS WITH SPECIAL NEEDS (RCSSN) AT THE UNIVERSITY OF EDUCATION, WINNEBA**

This aimed at investigating the support services available to students with visual impairments at the University of Education, Winneba

Orientation and mobility services

1. What techniques do the trainers employ during orientation and mobility training?

Prompts: How often do you receive orientation and mobility training from the department?

1. What are the challenges do you face with regard to orientation and mobility training?

Prompts: Any other challenges?

Prompts: Can you tell me more?

Prompts: Any other

The nature of transcription services

1. When do you provide transcription services to students with hearing impairment at

Prompt: How often do you do that?

1. What benefits do students who are visually impaired derive from your services you provide them?

Prompt: Can you tell me other benefits they get?

Prompt: any other?

Resource services provided at the RCSSN

1. What services do resource persons offer to students with visual impairment at UEW?

Prompt: Do you offer remedial services?

What other services do you offer to them?

Prompt: Any other?

2. What problem do you encounter when providing such services to them?

Prompt: can you tell me more?

3. What suggestion would you like to make in order to improve upon the services you provide to them?

Prompt: Any other?

1. What support services available to students with visually impairment at UEW?

Prompt: How often do you provide those services?

Prompt: What about remedial services?

Prompt: How do you provide remedial services to them?

2. What are the benefits of those support services to the students with visual impairment?

Prompt. Any other benefits?

Challenges affecting the O&M service

1. What challenges do you encounter in the process of discharging your duties can you tell me more?

2. What other problem do you encounter when discharging your duties?

3. What suggestions would you like to make with regards to orientation and mobility training in your department any other?