

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, KUMASI, GHANA**

**THE CHALLENGES FACED BY TEACHERS WITH VISUAL IMPAIRMENT IN  
REGULAR SCHOOLS IN THE KUMASI METROPOLIS**

**KNUST**

By

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## DECLARATION

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

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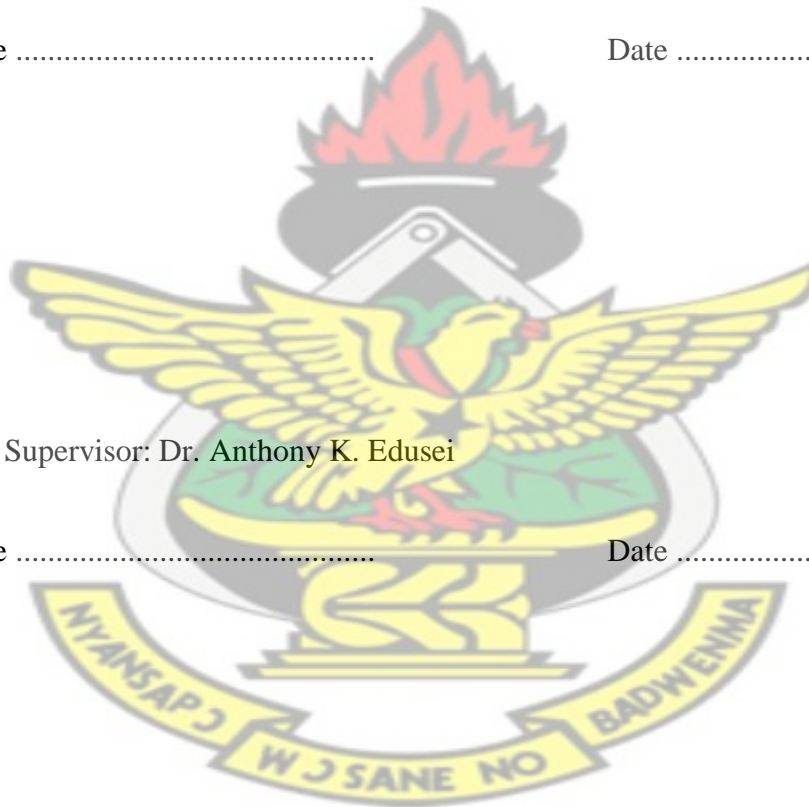
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## DEDICATION

“This Thesis is dedicated to my Dad, Mum & Sister for their  
unconditional love, support, and guidance throughout my life.

You have always been and will be my heroes. Thank you for the family that means more  
to me than anything in this world.”

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## ACKNOWLEDGEMENT

When we set goals for ourselves, there are always obstacles in the way that may deter us from accomplishing those goals. There are also people in our lives that are aware of those goals, and encourage us and support us to continue regardless of the obstacles. It is now that I can formally thank those people for doing just that for me. Before thanking anyone on this earth, I must first thank Jehovah God for being at my side during this challenging time of my life. I needed God to continue, as often, the desire was sometimes there to quit. The spiritual support has helped to keep me focused.

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## ABSTRACT

The role of teachers in the development of society cannot be overemphasized. However, over the years, the contributions of teachers teaching at the regular basic schools have been affected by various challenges. And those teachers with visual impairment are perceived to have pronounced challenges due to their disability. Thus, this study therefore aimed at identifying the challenges faced by teachers with visual impairment in the Kumasi Metropolis. The study was approached using the case study design to guide the processes of data collection, analysis and presentation. The researcher selected a sample of 20 respondents and conducted in-depth interviews with them. In addition, participant observations were carried out to augment the data collected through the interviews. The findings revealed that all the teachers with visual impairment have both human and material resource needs which are fundamental to enhancing their participation in teaching and learning. And these included sighted guides; accommodation facilities; screen reader and magnifiers as well as access to the internet. However, accessibility to these resources is a challenge. As a result, the performance of teachers with visual impairment within the Kumasi Metropolis has been affected in four-fold and this included competence; teacher-pupil relationship and interaction; availability of teaching and learning materials; and conditions of the school environment. As part of a broad range of strategies recommended, periodic in-service training programmes are needed to enhance the performance of teachers with visual impairment in Ghana.



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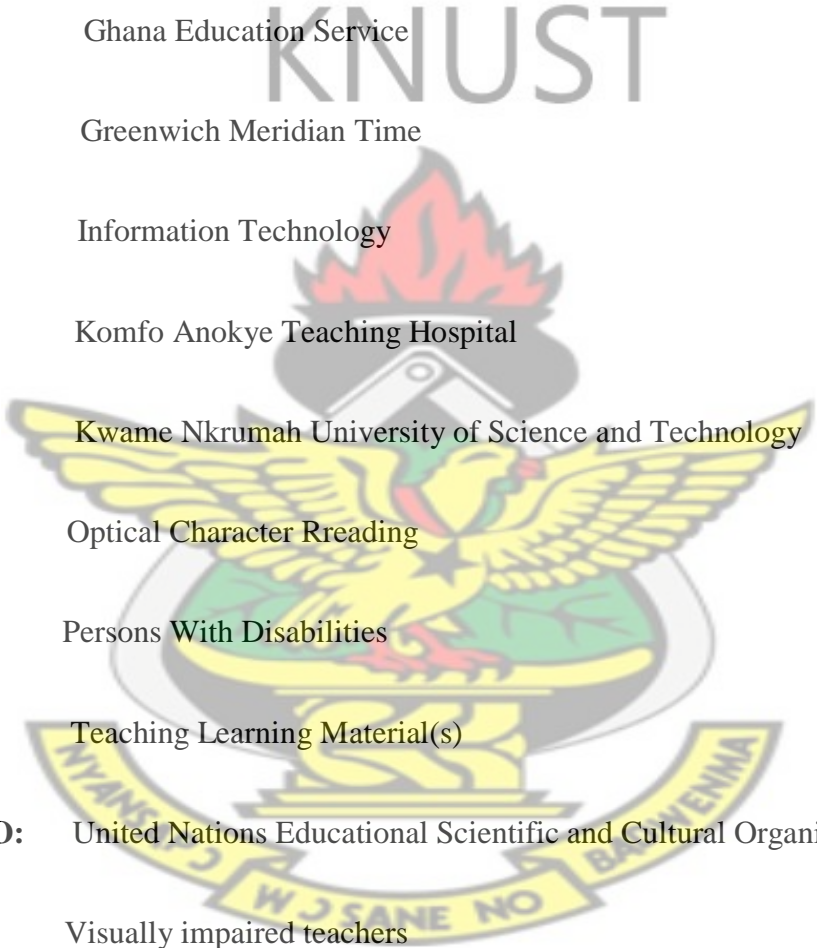
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## List of Abbreviations or Acronyms



<b>DM:</b>	Disability Management
<b>EU:</b>	European Union
<b>FNG:</b>	Federal Government of Nigeria
<b>GES:</b>	Ghana Education Service
<b>GMT:</b>	Greenwich Meridian Time
<b>IT:</b>	Information Technology
<b>KATH:</b>	Komfo Anokye Teaching Hospital
<b>KNUST:</b>	Kwame Nkrumah University of Science and Technology
<b>OCR:</b>	Optical Character Rreading
<b>PWD:</b>	Persons With Disabilities
<b>TLM(s):</b>	Teaching Learning Material(s)
<b>UNESCO:</b>	United Nations Educational Scientific and Cultural Organization
<b>VITs:</b>	Visually impaired teachers

## DEFINITION OF TERMS

**Regular school:** It is a type of school which provides education to the majority of children who are non-exceptional.

**Regular pupils:** They are pupils who attend schools meant for non-exceptional children.

**Regular teachers:** A teacher who teaches sighted pupils in the general classroom.

**Teacher:** One who teaches especially one hired to teach.

**Visual impairment:** Those with blurred and poor vision who cannot have visual communication with the pupils they teach.

**Inclusion:** Acceptance of PWDs into the mainstream society.

**Disability:** Inability to perform some or all the activities of daily living within the range considered normal.

**Braille:** Is a system of embossed signs which are formed by using a combination of six dots, arranged and numbered.

**Pupil:** A young person attending school.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

The teacher has become the focus of attention in modern world because of his unique roles in the society. It is daily becoming increasingly clear that no nation can rise or develop without the right caliber of teachers (Federal Government of Nigeria, FGN, 2004). Teachers are nation builders (Okeke, 2004) since majority of the members of a particular society will pass through their molding hands. It can therefore be said that whatever levels of development a particular nation passes through will partly be a true reflection of the caliber of teachers. This view is shared by Châu (1996), who argues that the quality of education depends on the quality of teachers, particularly in the initial stages of education when the pupils are at an early age, and especially in the rural areas (Passos, 2009, p.4).

While the relevance of teachers in promoting quality education cannot be overemphasized, it has been realized that over the years, teacher performance has been on the decrease due to increased attrition rate. In America, Jalongo and Heider (2006) argue that forty six percent of new teachers quit teaching and this even increase to about fifty percent in the urban areas. The case of America is emphasized again by Jalongo and Heider (2006) as they explain that about ninety percent of teachers who are hired in the country are replacements for teachers who have left teaching for some reason rather than retirement. The statistics for Sub-Saharan Africa are overwhelming because, the region has by far the greatest need for additional teachers because it is estimated that more than two-thirds of the world's countries with severe teacher gaps are in Sub-Sahara Africa (UNESCO, 2008).



Anhron (2008) also highlight factors like difficult work assignments, inadequate resources, isolation, role conflict and reality shock as reasons for the attrition rate of teachers and the apparent low performance. It is pertinent to note that teachers with visual impairment are no exception to these challenges. Thus, the challenges of the visually impaired teachers are more likely to be pronounced considering their disability and this affects their performance. It is in the light of this that this study seeks to examine the challenges faced by teachers with visual impairment in basic regular schools in the Kumasi Metropolis.

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## **1.2 Problem Statement**

It is recognized that Ghana as a country has ratified the various conventions on disabilities such as the the right to work and employment, the right to education, freedom, of expression and opinion and access to information, and the teacher training process in the country is inclusive of people with visual impairment. This is made formidable through the Education Strategic Plan 2003-2005 (also reviewed 2010-2020) by the Ministry of Education and the adoption of the Disability Act 715 passed by parliament in 2006 (Government of Ghana, 2003).

It is well noted that, the availability of the required resources is fundamental to guarantee effective and efficient development at any level. In line with this, it is important to highlight that, teachers and for that matter those with visual impairment have resources needs to be met if they are to participate effectively in teaching and learning in schools, especially at the basic level. It is stated that providing these resources for the visually impaired teachers become fundamental because if they have to give out their best there is the need to first overcome their likely challenges (Skandia, 1998). Aitken (1997) posits that for many years non/technological solutions, including human or personal reader

services, have offered access to the ink print page. The advancement in technology has been noted to have brought improvements in many of these areas. It is noted that an advantage of technology is that it provides a means of accessing information which is less dependent on the goodwill of others. It is in the light of this that, the researcher questions: What are the resources available to teachers with visual impairment in basic schools in the Kumasi metropolis?

The disability Act 715 (2006) in Ghana enforces that employers should not discriminate against any perspective employee on the grounds of disability unless the disability will affect the relevant employer (Government of Ghana, 2006). As a result of this teachers with visual impairment have over the years been absorbed by the Ghana Education Service to work in basic regular schools. However, it is often realized that, there is a vast gap between policy formulation and implementation particularly at the local level in Ghana. This is because it has been observed that challenges like discrimination, and limitations to teach certain subjects (Religious and Moral Education and Social Studies) are observed to be faced by teachers with visual impairment in some basic regular schools. Therefore, it is questioned; has their visual impairment affected the participation of such teachers in various activities in basic regular schools in the Kumasi Metropolis?

In order to ensure quality education in the basic regular schools where most visually impaired teachers are found, it becomes necessary to adopt pragmatic measures to improve their performance. It is stated that because teachers are faced with high expectations, and feel that they are undervalued and insufficiently supported and ill-equipped professionally to cope with the realities of their work environment, there is the need to overcome these challenges through encouragement and support in various ways (UNESCO, 2008). As a result of this, this study also specifically investigates: what are

the measures put in place to help teachers with visual impairment to overcome these problems in basic regular schools in the Kumasi Metropolis?

### **1.3 Research Questions**

- a) What are the challenges faced by teachers with visual impairment?
- b) What are the available resources for teachers with visual impairment?
- c) What strategies can be put in place to help teachers with visual impairment to overcome these problems?

### **1.4 Research Objectives**

The main objective of this study was to identify the challenges teachers with visual impairment face in teaching regular students/pupils in regular schools in the Kumasi metropolis.

#### **Specific objectives**

- a) To explore the available human and material resources in the schools in the Kumasi Metropolis.
- b) To access the extent to which accessibility is a challenge to teachers with visual impairment in the Kumasi Metropolis.
- c) To ascertain the effectiveness of teachers with visual impairment in the Kumasi Metropolis.
- d) To identify strategies put in place to help teachers with visual impairment in the Kumasi Metropolis overcome their challenges.

## 1.5 Significance of the Study

Centrally, the research brought to light the challenges of teachers with visual impairment teaching in regular basic schools. Such findings will inform the Ghana Education Service (GES) on the gaps in training and specific condition under which visually impaired teachers work and what can be done to address their challenges to improve their performance in the basic regular schools. Again, this research will empower teachers with visual impairment to take advantage of the innovations that the recommendations will bring so as to demand for things that will ensure their success in their chosen career. The findings of this study will also contribute to the scientific literature on this subject matter recognizing that there seem to be scanty published data.

## 1.6 Limitations

A noticeable limitation is related with the population of the study. Data will be collected from only the visually impaired teachers teaching in basic regular schools in the Kumasi metropolis. So the results cannot be generalized directly to all visually impaired teachers teaching in regular schools all over Ghana. Those results can only provide us with insights and general opinions from the specific sample. Studies on challenges faced by teachers with visual impairment teaching in regular schools could look at varied aspects of challenges including social, economic as well as institutional challenges related to teaching. However, this study is concerned with challenges relating to the school, effective teaching and classroom.

## 1.7 Conceptual Framework

Figure 1.1 is a theoretical framework to serve as a guide to help the researcher outline the methodology employed in achieving the study objectives.

The teacher has become the focus of attention in the modern world because of his unique roles in the society. Teachers with visual impairment have resource needs if they are to participate effectively in teaching and learning in schools especially at the basic level. The resource needs of visually impaired teachers are delineated into two namely; human resources and material resources. The human resource needs of visually impaired teachers will be measured by identifying whether such teachers have access to sighted guides and resource persons and the disability management (Skandia, 1998).

It is not necessarily about the availability of sighted guides but a key focus is whether such guides are given the appropriate training to communicate with the persons with visual impairment they lead. It also sought to access whether their workplaces have policies in place to provide "reasonable accommodation" for employees with disabilities, and also whether employers have legal requirements to end discrimination against persons with disabilities.

The framework also indicates that, the study also identified the availability and supply of material resources. These material resources ranged from non/technological solutions, including human or personal reader services, which have offered access to the ink print page (Aitken, 1997). It also sought to identify how teachers with visual impairment have thoroughly been acquainted with the teaching resource and resources for themselves and services available to them and that they have a clear understanding of the essentials of a functional materials-selection program.

It was perceived and proposed that, accessibility of these resources by the visually impaired teachers is a challenge and therefore has affected negatively their performance. Though teacher performance is widely understood the literature review has pointed out that, it is commonly synonymous with teacher training (Fwu and Wang, 2002; Siddiqui,

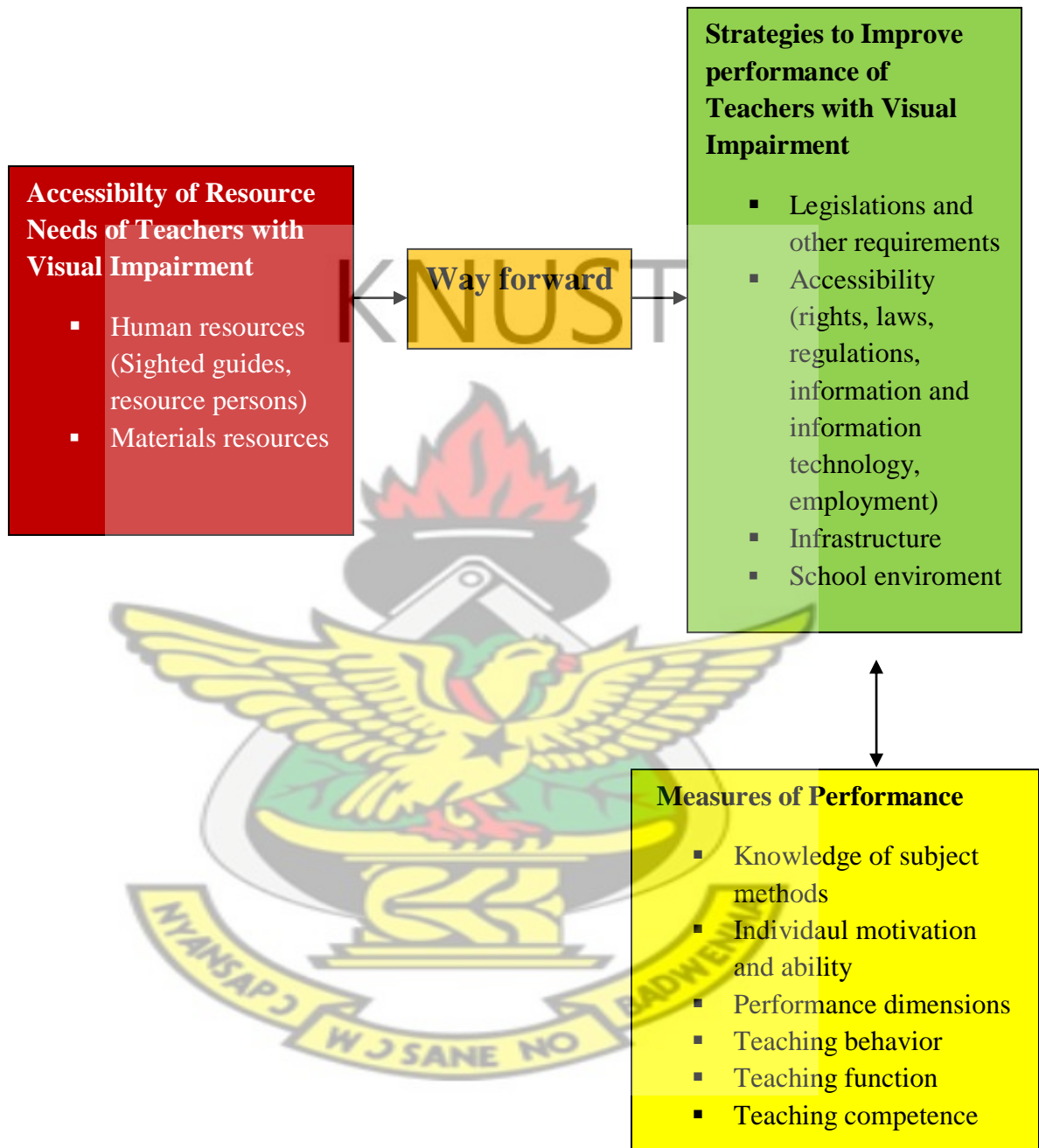


2010). Since these measures relate with a variety of factors, the researcher sought to identify the factors such as level of knowledge about the specific subject methods: individual's motivation and ability: performance dimensions: teaching behavior: teaching functions; teaching competence.

This therefore gave impetus to the researcher to identify the measures of their performance which included: aptitude, attitude, subject mastery, teaching methodology, personal characteristics, the classroom environment, general mental ability, personality, relations with students, preparation and planning, effectiveness in presenting subject matters, relations with other staff, self improvement, relations with parents and community, poise, intellect, teaching techniques, interactions with students, teaching competence demonstrated, motivational skills, fairness in grading and teachers' attitude toward the students.

Because the performance of most visually impaired teachers is often asserted as being low, it was proposed that, the wayforward is to adopt strategies directly and indirectly geared towards improving their role in the teaching and learnings in schools especially at the regular basic schools. Specific strategies examined included accessibility which is defined to include access to individual rights, laws and regulations, access to information and information technology, employment, infrastructure and the school environment. Effective formulation and implementation of policies in these areas was perceived to positively contribute to the resources of the visually impaired teacher and can directly affect the level of performance.





**Figure 1.1: Theoretical Framework on Challenges of Visually Impaired Teachers in Regular Basic Schools**

**Source:** Author's Own Construct (Adopted from the literature review) 2013.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the relevant scientific literature to form the theoretical basis for this current study. The discussion is organized under the following subheadings; resource needs of teachers with visual impairment; factors determining performance of visually impaired teachers; and strategies to improve teacher performance. It also discusses the theoretical framework on which the study is built on.

#### **2.2 Resource Needs of Visually Impaired Teachers**

It is well noted that, the availability of the required resources is fundamental to guarantee effective and efficient development at any level. In line with this, it is important to highlight that, teachers with visual impairment have resources needs if they are to participate effectively in teaching and learning in schools especially at the basic level. It is stated that providing these resources for the visually impaired teachers become fundamental because if they are to give out their best, there is the need to overcome their challenges (Skandia, 1998). Though these resources of visually impaired teachers can be broadly discussed, for the purpose of this literature review, these resource needs are delineated into two; human resources; and material resources.

In relation to human resource needs of visually impaired teachers, Skandia (1998) identifies the major needs to include sighted guides and resource persons and the disability management. According to Stone (1997), the extent to which people are able to care for themselves and travel independently determines to a large extent the quality of

their lives and teachers with visual impairment may require specific intervention such as sighted guides if they are to reach their potential in their chosen career.

The American society for the blind explains sighted guide as a technique that enables a person who is blind to use a person with sight as a guide. The ability to move in and around one's environment can affect the individual psychologically, socially, emotionally, economically and physically (Stone, 1997). The reason for using a guide is to enable a person who is visually impaired move through an environment safely and efficiently with the assistance of a sighted person- their guide.

In the Ghanaian context, it may often be seen that, visually impaired persons are aided by their friends and family members to commute from one place to the other. But a key question is how well trained are such individuals who serve as guides for the visually impaired? These questions even become more relevant in the setting of the visually impaired teacher. Barn (2012) explains that the principal objective of orientation and mobility training is attaining freedom in movement.

While perhaps a friend or family member may try to help by holding the visually impaired's hand or having the visually impaired rest his or her hand on his or her shoulder, Barn (2012) believes even though these methods are well intended, they are not safe and can lead to accidents. It is identified that to help a guide to guide well and which could also be defined as the role of the sighted guide, the 'Three A's' should be used. These include APPROACH (Address the person, Identify yourself, and State your role); ASK (Always ask if assistance is needed, and Find out what assistance they want); and ASSIST (Describe what you see around you- objects and where they are located; advise of any changes in layout of furniture, and Use precise, descriptive terms, for example, 'the door is on your left' rather than ' the door is over there' (Vision Australia, u.d).

Aside the sighted guide, it is also noted in the school setting that, there is the need for a resource teacher also known as specialist teacher. This person should have an important role to play to assist the teacher(s) with visual impairment who teach in regular basic schools. Griffiths and Best (1996) identify some specific tasks that schools had found the resource teacher could usefully undertake. These include: Advice on the physical environment including lighting and contrast; help with delivering the curriculum to sighted students; suggestions for modifying classroom materials so they could be used by the sighted pupils; advice on presentation of activities on specialized teaching strategies; and providing staff with an understanding of the nature of the visual impairment and its effects on teaching.

Another essential human resource factors needed by teachers with visual impairment is Disability Management (DM) which is simply explained as a specialized area of human resources, to support efforts by employers to better integrate and retain workers with disabilities. It has been noted by researchers that where accommodations are in place for employees with disabilities, these frequently apply to individuals with "pre-determined or apparent disabilities as determined by national social protection or Equality Authorities (Geisen and Harder, 2011). Some workplaces have policies in place to provide "reasonable accommodation" for employees with disabilities. However, many do not. In some jurisdictions, employers may have legal requirements to end discrimination against persons with disabilities.

The disability Act 715 (2006) in Ghana enforces that employers should not discriminate against any prospective employee on the grounds of disability unless the disability will affect the relevant employer. As a result of this teachers with visual impairment have over the years been absorbed by the Ghana Education Service to work in basic regular

schools. It is therefore important to identify which are the specific efforts in managing the disability needs of these teachers with visual impairment teaching in basic regular schools in Kumasi. This is necessary because of the huge recognition that there is a vast gap between policy formulation and implementation particularly at the local level in Ghana.

It is a known fact that for teachers to be efficient and effective in carrying out their duties and responsibility the availability and supply of material resources cannot be down played. Therefore, it is imperative that teachers with visual impairment be thoroughly acquainted with the teaching resource and resources for themselves and services available to them and that they have a clear understanding of the essentials of a functional materials-selection program. Aitken (1997) posits that for many years non/technological solutions, including human or personal reader services, have offered access to the ink print page. The advancement in technology has been noted to have brought improvements in many of these areas. An advantage of technology is that it provides a means of accessing information which is less dependent on the goodwill of others.

It is now possible for teachers with visual impairment to access a wide range of up-to-date journal articles through the internet or other specialized services. These articles can be downloaded to a personal computer to be read by a screen reader through speech, magnification or braille. According to Sullivan (1993), economies of scale have reduced the price of optical character reading (OCR), machines and scanners, to a level which some institutions and individuals can afford many for people with visual impairment. An OCR, used in combination with a scanner reading system, represents a major advance in personal independence, allowing them to read correspondence and personal papers in private (Sullivan, 1993).



Having identified these resource needs of visually impaired teachers, a key question that this research seeks to identify is whether accessibility to these resources is a challenge. The validity of this question is worth inquiring considering that, Ghana as a developing country is currently facing some challenges to teacher management within her educational system.

### **2.3 Measures of Performance of Visually Impaired Teachers in Basic schools**

In modern society it has been perceived that effective and target oriented education, is a powerful medium and source to effect the required change in the social setup of nations across the globe. This argument is made formidable with the Millennium Declaration in 2000, where the need for Universal Basic Primary Education is a highly set goal. This, however, does not take place in isolation, but is accomplished by the teacher, who is required to be the major player of change during the entire process. With this focal position, the teacher's competence is a key element which defines quality education. According to Westera (2001), competence is strongly associated with the ability to master complex situations, and goes beyond the levels of knowledge and skills to include an explanation of how knowledge and skills are applied in an effective way. Within this understanding, it is possible to say teacher competence defines the way in which teachers effectively use the knowledge and skills in specific and concrete contexts. However, Westera (2001) continues to explain that, mastery of relevant knowledge and skills alone is no guarantee for successful performance in complex environments.

The understanding of teacher performance is synonymous with teacher quality which Fwu and Wang (2002) also explain to be connected with teacher training. It is emphasized that, "teacher training should develop content knowledge, pedagogical skills, the ability to reflect and to empathize, managerial competency, commitment, moral



conduct, the ability to adjust and improvise, the capacity to collaborate with other teachers, the ability to advance the profession of teaching, and to contribute to society at large” (Fwu and Wang, 2002). This is similarly shared by Siddiqui (2010, p.2) that, “the training process of the teacher must be accorded the highest priority by everyone concerned for improving the deliverance of education”.

While the professional skills acquired through the training process should directly equip the teachers to motivate and encourage students to acquire knowledge and attitudes, about society, wherein they live (Siddiqui, 2010, p.3), it is pertinent to note that, there are both direct and indirect measures of teachers performance. According to Passos (2009) these are termed generally as “*factors of teacher performance*” but for the purpose of this current study, these factors are considered as the “measures”. These include aptitude, attitude, subject mastery, teaching methodology, personal characteristics, the classroom environment, general mental ability, personality, relations with students, preparation and planning, effectiveness in presenting subject matters, relations with other staff, self improvement, relations with parents and community, poise, intellect, teaching techniques, interactions with students, teaching competence demonstrated, motivational skills, fairness in grading and teachers’ attitude toward the students” among others.

Passos (2009) indicates that, teacher performance refers to the behaviour of a teacher while teaching a class (both inside and outside the classroom). Because behavior is intrinsic, it can be determined more clearly in the action of the teacher. This is true with Medley (1982) who indicates that teacher behavior is defined in terms of what the teacher does (cited in Passos, 2009). For the purpose of this study, the discussion on teacher performance will be examined from the following broad segments. One way to measure teacher performance is to measure the students’ achievement since the two are

inextricably linked. In a study conducted by the Ministry of Education and Culture Mozambique (1993), it is identified that teacher competence and teacher performance are related to pupil performance in the classroom (cited in Passos, 2009). This relationship between teacher performance and students' achievement may be tied with the professional knowledge concept (Medley and Shannon, 1994). The concept of professional knowledge as defined by Medley and Shannon consist of knowledge about the kinds of teacher behaviour which is known to be effective in helping students progress toward important educational goals.

Medley and Shannon (1994) also indicate that another measure of teacher performance in primary education is the level of knowledge about the specific subject methods. This second dimension defines the contribution of the teacher to filling the gaps in the curriculum. Howie and Plomp (2005) argue that, the teacher is the key player on the educational stage and we often expect him or her to make up for the deficiencies in the curriculum and in educational resources. The curriculum is defined to include the subject matter which is linked with the general pedagogy. And according to Grossman (1995, p.6118), these includes “knowledge about classroom organization and management, general knowledge of lesson structure, and general methods of teaching. Because, these factors depend on the teacher training process, Passos (2009) states that to improve teacher performance in primary education, it is essential that such aspects as subject matter or professional knowledge and general pedagogy be considered for inclusion in the teacher training programme.

While Kreitner (1995) explains that, job performance is the product of a combination of an individual's motivation and ability, earlier studies have proven that, teacher performance is influenced by a variety of composite and single factors. These include the

seven performance dimensions: preparation and planning, effectiveness in presenting subject matter, poise, relations with students, self-improvement, relations with other staff and relations with parents and community (Ferris *et al.*, 1988); based on four categories of teaching behavior: intellect, teachers' personality, teaching techniques and interaction with students (Jahangir, 1988); based on teaching functions: instructional presentations, instructional monitoring, instructional feedback, management of instructional time and management of students' behavior (Swartz *et al.*, 1990) and finally based on factors relating to teaching competence demonstrated, motivational skills, teachers' attitude toward students and fairness in grading (Riaz, 2000).

It has also been noted that, teacher performance needs to be most responsive to change and improvement through in-service education or training. According to Roy (2001), the purpose of the in-service training or education should clearly be restricted to learning outcomes related to the improvement of performance of the teacher. It is imperative to mention that the sort of interaction a particular teacher has with the co-teachers also shapes the performance in school. It is explained that co-teachers critically review and improve teaching through the exchange of ideas with their peers. Co-teachers are also a valuable source of formative feedback on whether goals are achieved (Koch and Burghardt, 2002). Therefore, teachers work most effectively when they are supported by other teachers and work together collegially.

## **2.4 Strategies to Enhance Performance of Visually Impaired Teachers in Ghana**

Disability rights movements have advocated equal access to social, political, and economic life which includes not only physical access but access to the same tools, services, organizations and facilities. The general understandings of accessibility refer directly to access-based, individual rights, laws and regulations. Accessibility can be

defined as the "ability to access" the functionality, and possible benefit, of some system or entity and is used to describe the degree to which a product such as a device, service, and environment is accessible by as many people as possible. In relation to people with disability, the focus is their right of access to entities, often through use of assistive technology. Another dimension is the ability to access information and services by minimizing the barriers of distance and cost as well as the usability of the interface.

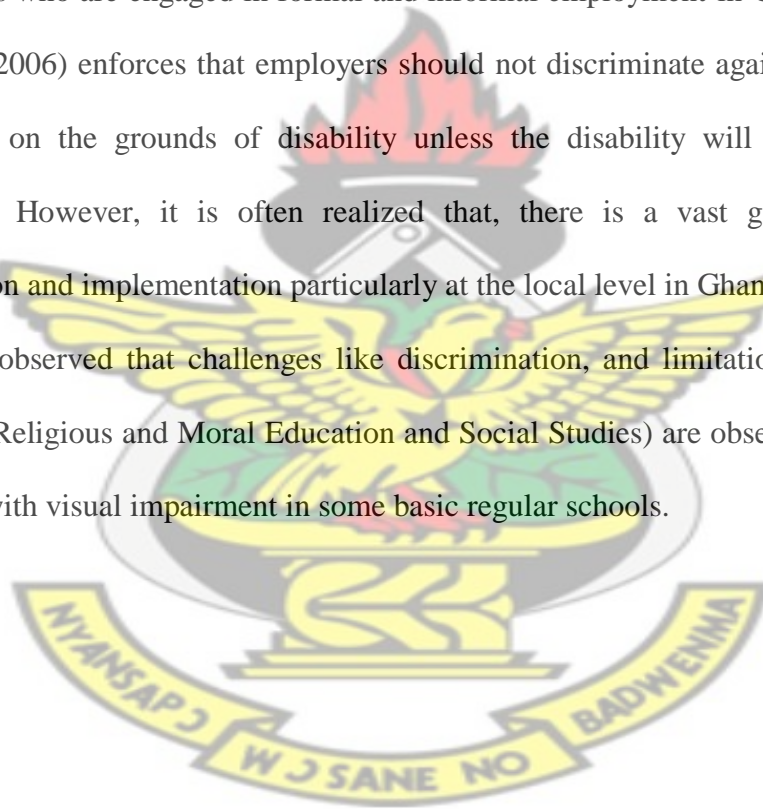
Various international and national legislations have been enacted to improve the accessibility of persons with disabilities. For instance, in Sri Lanka, the Supreme Court, on 27 April 2011 gave a landmark order to boost the inherent right of disabled persons to have unhindered access to public buildings and facilities (Ockersz, 2009). The European Union (EU), has signed the United Nations' Convention on the Rights of Persons with Disabilities, and also has adopted a European Disability Strategy for 2010-20. In some EU countries this has led to initiatives, laws and/or regulations that aim toward providing universal access to the internet and to phone systems at reasonable cost to citizens.

In Ghana and more specifically within some sub-metros in the Kumasi metropolis, it has been realized that arrangements have been made for teachers to upgrade themselves in information technology and telecommunications. But the question is what adaptations have they made to ensure that teachers with visual impairment have access to these facilities? A major advantage of advanced technology is its flexibility. Some technologies can be used at home, in the workplace, and in school, expanding the ability of the user to participate in various spheres of daily life. Augmentative and alternative communication technology is one such area of IT progress. It includes inventions such as speech-generating devices, teletypewriter devices, adaptive pointing devices to replace



computer mouse devices, and many others. They can be adapted to create accessibility to a range of tasks, and may be suitable for different kinds of disability.

Another dimension of accessibility is employment. Surveys of non-Western countries are limited, but the available statistics also indicate fewer jobs being filled by workers with disabilities. In India, a large 1999 survey found that "of the 'top 100 multinational companies' in the country, the employment rate of persons with disabilities in the private sector was a mere 0.28%, 0.05% in multinational companies and only 0.58% in the top 100 IT companies in the country. While it is uncertain the percentage of people with disabilities who are engaged in formal and informal employment in Ghana, the disability Act 715 (2006) enforces that employers should not discriminate against any prospective employee on the grounds of disability unless the disability will affect the relevant employer. However, it is often realized that, there is a vast gap between policy formulation and implementation particularly at the local level in Ghana. This is because it has been observed that challenges like discrimination, and limitations to teach certain subjects (Religious and Moral Education and Social Studies) are observed to be faced by teachers with visual impairment in some basic regular schools.



## **CHAPTER THREE**

### **METHODS**

#### **3.1 Introduction**

This chapter is outlined broadly in four main parts. Immediately following this introduction is a discussion on the background to the study area. This is followed by a detail examination of the procedures that were employed in collecting and analyzing the data. The third section looks at the ethical considerations while the final section examines the challenges related to the conduct of field interviews.

#### **3.2 Background of the Study Area**

##### **3.2.1 Location and size of Kumasi Metropolis**

Kumasi is located in the transitional forest zone between latitude  $6.35^{\circ} - 6.40^{\circ}$  and longitude  $1.30^{\circ} - 1.35^{\circ}$ , an elevation which ranges between 250 – 300 metres above sea level with an area of about 254 square kilometres. The unique centrality of the city as a traversing point from all parts of the country makes it a special place for many to migrate to. The metropolitan area shares boundaries with Kwabre East District to the north, Atwima District to the west, Ejisu-Juaben Municipal to the east and Bosomtwe to the south (Kumasi Metropolitan Assembly, 2006).

##### **3.2.2 Geology and Soil**

The Kumasi Metropolitan area is dominated by the Middle Precambrian Rock. The effect of this unique geological structure in the metropolis has both positive and negative impacts on the local economy. The very existence of the Precambrian Rock has led to the



development of the construction industry in the metropolis. There are a few small-scale mining activities and the proliferation of stone Quarrying and Sand Winning Industries. Even though these have created employment opportunities, the uncontrolled extraction of these resources poses environmental hazards (Kumasi Metropolitan Assembly, 2006).

The major soil type of the metropolis is the Forest Ochrosol. The detailed soil associations are the following: Kumasi - Offin Compound Association; Bomso – Offin Compound Association; Nhyanao - Tinkong Association; Bomso – Suko Simple Association; Bekwai – Oda Compound Association and Bekwai – Akumadan – Oda Compound Association. It is a very rich type of soil that has made it possible for a lot of foodstuff (vegetables, plantain, cassava etc) to be grown in the periphery (Kumasi Metropolitan Assembly, 2006).

### **3.2.3 Relief and Drainage**

The Kumasi Metropolis lies within the plateau of the South–West physical region which ranges from 250-300 metres above sea level. The topography is undulating. The city is traversed by major rivers and streams, which include the Subin, Wiwi, Sisai, Owabi, Aboabo, Nsuben among others. However, biotic activity in terms of estate development, encroachment and indiscriminate waste disposal practices have impacted negatively on the drainage system and have consequently brought these water bodies to the brink of extinction. The metropolitan area is dominated by middle Pre-cambrian rock. It is within the plateau of the south-west physiological region, which ranges between 250 and 350 metres above sea level (Kumasi Metropolitan Assembly, 2006).

### 3.2.4 Climate and Vegetation

The Metropolis falls within the wet sub-equatorial type. The average minimum temperature is about 21.5°C and a maximum average temperature of 30.7°C. The average humidity is about 84.16 per cent at 0900 GMT and 60 per cent at 1500 GMT. The moderate temperature and humidity and the double maxima rainfall regime (214.3mm in June and 165.2mm in September) have a direct effect on population growth and the environment as it has precipitated the influx of people from every part of the country and beyond its frontiers to the metropolis. This is chiefly because the climatic conditions are not harsh (Kumasi Metropolitan Assembly, 2006).

The city falls within the moist semi-deciduous South-East Ecological Zone. Predominant species of trees found are Ceiba, Triplochlon, Celtis with Exotic Species. The rich soil has promoted agriculture in the periphery. A patch of vegetation reserve within the city has led to the development of the Kumasi Zoological Gardens, adjacent to the Ghana National Cultural Centre and opposite the Kejetia Lorry Terminal (Kumasi Metropolitan Assembly, 2006).

This has served as a centre of tourist attraction. In addition to its scenic beauty as a tourist centre its other objectives include education, preservation of wildlife, leisure and amusement. Apart from the zoological gardens, there are other patches of vegetation cover scattered over the peri-urban areas of the metropolis. However, the rapid spate of urbanization has caused the depletion of most of these nature reserves.

### 3.2.5 Economic activities

The proportion of the economically active population varies in the Kumasi metropolis. The major occupation predominating in the Kumasi metropolis is trading (sale workers).

The proportion of females in Sales is higher than that of males in all the districts. Majority of the economically active population are self-employed, mainly in the private informal sector, which provides job opportunities, particularly for females with little or no formal education (Kumasi Metropolitan Assembly, 2006).

### **3.3 Research Methods**

#### **3.3.1 Research design**

The study was approached using the case- study design. This choice was influenced by the fact that the researcher intended to collect qualitative data which is most suitable with this design. The case study design offers the researcher the opportunity to explore the various issues on teachers with visual impairment and their challenges through a variety of lenses and this allows for multiple facets of the phenomenon to be revealed and understood (Yin, 2003).

#### **3.3.2 Sources of Data**

Both primary and secondary data sources were used for this study. The primary data resulted from transcription from interviews which were administered during field interview. The secondary data resulted mainly from previewed articles, books, magazines and other sources with relevance to the study.

#### **3.3.3 Methods of Data Collection**

The tools of data collection were in-depth interviewing and participant observation (ethnography). The researcher understood the need to follow the interview conditions. Thus, in each interview, the researcher played the role of the interviewer who is often tasked with posing questions, evaluating answers and probing for elaboration, noting

down answers and leading the discussion. The question in the interview guide generally centred around the broad areas of the research objectives; the availability of human and material resource in schools; the extent to which accessibility is a challenge; the effectiveness of teachers with visual impairment; and the strategies put in place to enhance their performance.

Participant observation or ethnography was also used to generate important data. Through this technique first-hand information was obtained in relation to the various aspects of the research questions. Assuming my role as “observer-as-participant” (Bryman, 2008, p.402), I was immersed in school and observed behaviour, listened to what is said in conversations and asked questions. This was not only limited to social observation, but also the physical appearance of the school environment.

#### **3.3.4 Population and Sampling**

All teachers with visual impairment, all pupils, all co-teachers in schools where visually impaired teachers are in the Kumasi metropolis constituted the population. The sample size consisted of 20 respondents. Out of this number, 10 were teachers with visual impairment and 5 were sighted co-teachers while the 5 remaining were pupils of teachers with visual impairment.

Even though the list of teachers with visual impairment as was taken from the Metropolitan education office in Kumasi, included a total of 15 people, only 10 were engaged in the interviewing process. This was because the data collection exercise was halted when the data saturation point was reached. Tong *et al* (2007) define data saturation as the point in the data collection exercise where no new ideas or information are emerging from participants. They advocate that at the point, additional data become

irrelevant. Thus, the VITs were purposively sampled or handpicked because of their relationship to the study (Marion and Cohen, 1995).

The sighted co-teachers and the pupils were randomly selected. On a visit to the school, each staff member/pupil was assigned a serial number. The same serial numbers were written on a piece of paper. All the pieces of papers with the numbers written on them were put in a box and shaken vigorously to ensure randomization. The staff members/pupils were made to draw the numbers from the box one after the other. After each draw the remaining papers were well shuffled before another paper was drawn. This process was carried out until the total number of the pieces of paper added up to the sample desired. After that the teachers/pupils with serial numbers corresponding with numbers on each piece of paper drawn were selected to constitute the sample of teachers/pupils included in the study. This was done in all the schools where teachers with visual impairment teach.

### **3.3.5 Data Analysis and Presentation**

The recorded interviews were transcribed and coded according to thematic areas that answered the objectives of the study. This was done alongside the replay of the tape. The data presentation and discussion adopted both the narrative and descriptive approaches. Direct quotes from respondents were used to support assertions. In the argument of Sandelowski (1991), narrative presentation is one of the modes that allows “knowing” to be transformed into “telling”. In effect, it allows the researcher to convey the issues that has been unearthed to be presented to the reader in a story form. The narrative aspect of the data presentation allows the participants to tell “their own story” in line with the research objectives.



The data was analyzed thematically, using key themes identified in the interviews and participation observations were analyzed. Categorized themes from coding were presented. Though there are different ways of coding, this study employed the basic understanding of it as involving a movement from generating codes that stay close to the data to more selective and abstract ways of conceptualizing the phenomenon of interest (Bryman, 2008, p.543). Through that the researcher made meaning of the large volumes of data that was generated from the various instruments of data collection.

### **3.4 Ethical considerations**

Letter of introduction was obtained from the Educational Director of Kumasi Metropolis for the use of the schools as a study facility. Clearance was also obtained from KNUST/KATH committee on human research publication and ethics. Informed consent was also obtained from each interviewee prior to the conduction of the interview.

### **3.5 Challenges to the study**

A key challenge to this study was the willingness of the participants to participate in the study and even those who participated, not all of them took the interview seriously. The researcher had to explain to all respondents more clearly the essence of the research and to seek their informed consent before proceeding on any interview.

The constraints of limited budget, time and large volumes of data were also noted by the researcher. As a result, the researcher could not work along her research plan and this increased her cost in terms of money and time. Again, there were difficulties in getting ethical clearance on time and this is due to the bureaucratic system of application.



## CHAPTER FOUR

### RESULTS

#### 4.1 Introduction

This chapter presents the research finding drawn from the interviews and personal observations. For effective organization, the findings are presented and discussed under sub-headings which are also drawn from the study objectives.

#### 4.2 Demographic Characteristics of Respondents

A total of 20 respondents were sampled and this consisted of ten (10) teachers with visual impairment, five (5) sighted co-teachers and five (5) pupils. In terms of the gender distribution, eleven (11) respondents were males and this comprised six (6) teachers with visual impairment, three (3) pupils and two (2) sighted co-teachers. The remaining nine (9) respondents were females made up of four (4) teachers with visual impairment, two (2) pupils and two (2) sighted co-teachers.

The age distribution for the teachers revealed that, three (3) respondents were within the age category of 20-30 years, seven (7) respondents within 31- 40 years, while the last five (5) falls within the age limits of 41 years and above. The age distribution of the pupils revealed that, their ages ranged between 10-15 years. It is important to state that, there is no particular reason to account for the variation in both gender and age distributions of the respondents, but this might relate with the simple random sampling technique used to select the research respondents.

Another demographic characteristic of the respondents worth discussing is the length of their teaching experience. The relevance of this information is that, it helps to ascertain how teachers, especially the visually impaired are abreast with the challenges that hinder their performance and thus provide insight to what can be done or has been done to enhance it. From the research findings, a total of ten (10) respondents have teaching experience between 1-10 years. Three (3) respondents were identified to have had experience between 11-20 years while the remaining two (2) respondents indicated their experience is between 21-30 years.

In a study like this relating to teacher performance, it is precisely recognizable that, the teachers' understanding of the pedagogy of education and the curriculum is fundamental to accelerate one's performance. Therefore, the researcher also sought to identify the highest educational qualification of the teachers who were sampled and this is perceived to provide an insight to understanding of their curriculum and pedagogy. All the teachers indicated to have obtained tertiary education. However, the kind of qualification and degree awarded were different. Three (3) respondents indicated they have obtained course certificates, 4 respondents had diploma certificates while the remaining 8 respondents have obtained first degree certificates. It should be highlighted here that, most of the visually impaired teachers interviewed have obtained relevant education up to first degree and that is remarkable considering their disability

#### 4.3 Resource Needs and Accessibility Challenge of the Visually Impaired Teachers

It is well noted that, the availability of the required resources is fundamental to guarantee effective and efficient development at any level. Therefore, the first research question sought to identify the available resources for teachers with visual impairment. The resource needs of visually impaired teachers were delineated into: human and material resources. The major elements discussed under the human resource needs include sighted guides, resource person and disability management.

All the visually impaired teachers interviewed indicated they have sighted guides who assist them to move around. However, the sampled teachers with visual impairment in the Kumasi Metropolis revealed that most of their guides were limited in the kind of assistance they render to them. In addition, they explained that, how useful a sighted guide can be to them depends on some important factors; training, friendliness of environment and level of reward or payment.

In the first place, some visually impaired explained that, their perception and how they valued the assistance rendered by the sighted guides was dependent on their level of training. It was noted by most of the visually impaired teachers interviewed that their sighted guides have either received no or less training on effective guidance for the visually impaired. For those who have had some degree of training, it was perceived to be basic, and has been offered by the visually impaired themselves. This is buttressed in the following response by a visually impaired teacher, who states that, *“I go with students who guide me and because they have received no training, I make sure I am alert when they are guiding me”* (Field interview, 2013).

A closely linked factor that determines how relevant a sighted guide is the friendliness of the environment. For those who perceived their school environment to be disability

friendly, they did attach much relevance to the assistance given by their sighted guides. For instance, a respondent noted, *“A blind person can easily move, because the buildings, wash rooms are disability friendly”* (Field interview, 2013). This viewpoint was similarly shared by another VIT who states that,

*“Unlike the other visually impaired, I’m a bit mobile because if I stay in an environment for a while, I am able to familiarize myself with the structures, so I am not faced with any challenges. However, the washroom is not friendly so I always go with somebody to take me there because I may not know whether somebody is there or not I may go and step in something which I may not like”* (Field interview, 2013).

Apart from these two fundamental factors, another concern raised was the level of associated reward or payment. Most of the sighted guides were not appropriately remunerated to motivate them to assist the visually impaired teachers in other responsibilities hence guidance is limited to movement to and fro the school environment. This is typified in the following statement made by one visually impaired teacher; *“I come with a guide, he is not trained so I personally gave him some tutelage and he is given allowance from my pocket”* (Field interview, 2013).

The second perspective of human resource needs of the visually impaired teachers was to assess whether in their respective schools, they have a resource teacher to assist them. Resource persons aside the sighted guides, should have an important role to play to assist the teacher(s) with visual impairment who teaches in regular basic schools. It was found that, in all the schools where the visually impaired teachers teach within the Kumasi Metropolis none of such specialist teachers was available. However, the VITs indicated they receive some assistance from their pupils, family members and colleague teachers in rendering teaching and learning. One visually impaired teacher remarked that she has no



assistance from any resource person. However, she relies on her brilliant pupils to assist her in marking assignment. She states that,

*“I don’t have anybody to prepare the lesson notes for me. I Train them from p4 – p6. It is until they get to p6 that I give exercise because by then they would have matured enough so I can get the brilliant students to do the marking for me..... I rely on a past student who has completed Senior high school to do it for me marking and scoring. When I braille my questions in Braille he comes and I read to him type and print (Field interviews, 2013).*

For this category of VITs, it was identified that they have challenges with classroom control and evaluation and assessment. This is explained in following response by a VIT;

*“Class control is very difficult some of the children when you are teaching them they misbehave because you cannot see, even though sometimes the teachers help me to control the children. When it comes to assessment and evaluation, I take the children’s notebook and dictionary and ask one of the pupils who can write, to write the questions down or to mark exercises” (Field interviews, 2013).*

However, a number of the VITs acknowledged receiving assistance from their co-teachers. *“I get assistance from my colleagues. My colleague teachers read the syllabus for me to Braille and all the needed materials (Field interviews, 2013).* Those who have assistance from their co-teachers were perceived to be effective than those who do not have such assistance.

Though the co-teachers were a valuable source of formative feedback on whether goals are achieved in addition to the assistance these VITs receive from their pupils, it becomes a challenge when they were to write their lesson notes. In this regard, one of the VITs opined that, *“We should be allowed to write the lesson notes in Braille and read to our heads of institution to vet. I always want to record the topics therefore I ask some of the students to record” (Field interviews, 2013).*



Another essential human resource factor needed by teachers with visual impairment is Disability Management (DM) which is simply explained as a specialized area of human resources, to support efforts by employers to better integrate and retain workers with disabilities. Some workplaces have policies in place to provide "reasonable accommodation" for employees with disabilities, however, many do not. In some jurisdictions, employers may have legal requirements to end discrimination against persons with disabilities. The researcher focused on analyzing how VITs were treated in terms of accommodation, and discrimination in terms of subject areas they are teaching.

It was identified that out of ten (10) visually impaired teachers who were interviewed, only two (2) indicated they have been given accommodation facilities located within their school compounds.

Aside the issue of accommodation which was raised by visually impaired respondents, the researcher also sought to identify whether these VITs are discriminated on the basis of the subjects they are assigned to teach in their respective schools. It was observed that subjects generally taught by the VITs involved in this study were Art and Craft, Social Studies, Religious and Moral Education, History, ICT and English. Whereas, they have been assigned these subject areas because of their specialization at the university or college level, some of the VITs perceived this as discrimination because they wish to be teaching other subjects like catering and Ghanaian language (Twi).

In addition to the human resource needs, it is a known fact that for teachers to be efficient and effective in carrying out their duties and responsibility the availability and supply of material resources cannot be down played. Teachers with visual impairment must be supplied with the teaching resources for themselves and services available to them so that

they can have a clear understanding of the essentials of a functional materials-selection program.

A number of the VITs indicated having some of the material resources required for teaching and learning. These ranged from Braille syllabus; teachers' handbooks; students' textbooks; Braille sheets to copy notes and set questions and personal computers. A major concern was the fact that, most of these VITs have obtained these materials through personal efforts. It is also noted that, access to and usage of computer and other accessories like pen drives and projectors were highlighted to be fundamental material resources required to enhance teaching by the VIT. This is exemplified in the following remarks;

*“Any material that I will need, I have to get it myself. The classroom, here, I don't write on the board, so if there was a computer and a project, I will type my notes and just highlight it for everybody to see and write. This is because when somebody has to write on the board it is possible the person can make a mistake. Sometimes the notes in the books is correct but while the person is writing the person can make or skip over something so if attention is not drawn the pupils will copy the wrong thing. But if the computer was there that one you don't need any intermediary, you just type and you are sure for the right thing” (Field interviews, 2013).*

From the above analysis, it was realized that, accessibility of resources both human and material by the visually impaired teachers in basic regular schools in the Kumasi metropolis is a challenge. This is in recognition of the fact that, most of the VITs lack the human and material resources needed to enhance their performance as teachers. This is partly linked with the fact that, incorporate technology has not been part of the teacher training and other in-service training programmes. For instance, one respondent stated that, *“When we went for the training I wanted to learn typing but there were no computers” (Field interviews, 2013).*

#### 4.4 Factors Determining the Performance of the Visually Impaired Teachers

Teacher performance is variedly understood. That notwithstanding, there are specific indicators which are commonly used. In relation to the research findings, it was identified that the factors determining teacher performance among the visually impaired teachers in regular basic schools in the Kumasi Metropolis include, competence; teacher-pupil relationship and interaction; availability of teaching and learning materials; and conditions of the school environment.

It was revealed that all the visually impaired teachers have obtained the appropriate educational qualifications. Out of the total of ten (10) respondents, it was noted 50% have been to various Colleges of Education while the remaining 50% had obtained University education. Notwithstanding the level of educational qualification most of the VITs indicated that, as part of their training they have become competent in the preparation and use of TLMs as well as classroom management. Whereas the teachers proposed to possess the competence, one way to measure teacher performance is to measure the students' achievement since the two are inextricably linked.

In line with this claim, majority of the pupils noted that their academic achievements have not been remarkable because they do not understand what is taught by these VITs and this they believe is as a result of their inability to demonstrate lessons with teaching learning materials. This is exemplified in the following remarks; *“We wonder how he is able to teach us well for us to understand.....Some pupils say that because she is blind when she teaches them they don't understand” (Field interviews, 2013).*

The research findings revealed that the use of English language to communicate in teaching and learning is perceived by some of the pupils to affect effectiveness of some VITs. For instance, it is explicitly stated by one that, *“Sometimes when he speaks English*

and they don't understand, the students sometimes think he is wrong so they laugh" (Field interviews, 2013). That notwithstanding, a few of the pupils explained that, some VITs exhibit some level of competence and this manifest in their punctuality and availability to teach despite their impairment. This is typical in the following statement by a pupil; *"Other pupils say he is a very good teacher. He is not lazy. Anytime he has a class with us he normally does not wait. He rather will ask someone to bring him to class"* (Field interviews, 2013).

Directly connected with the issue of competence is the kind of relationship that exists between these teachers and their pupil. It is important to state that, some of the VITs understand that effective performance should be built on good teacher-pupil relationship. For example, one of them states that,

*"Effective teaching is about teacher-pupil relationship; like you being a teacher how do you teach, and how do the pupils respond. The kind of method you apply in your teaching, do you get a positive response from your pupils after the lesson when you give assignment what feedback do you get. Is it positive or negative so that tells you that your teaching is effective?"* (Field interviews, 2013).

One challenge that limited the role of teacher-pupil relationship in promoting effective teacher performance was mockery. Some VITs argued that, because their pupils make mockery of them it makes it difficult to manage the class. *"When children observe that you cannot see they hide and do certain things you will not see"* (Field interviews, 2013).

Whereas most of the VITs indicated they have been given the appropriate training in aspects relating to subject matter, professional knowledge and general pedagogy a key concern they recounted which affects their effective performance is the availability of



teaching and learning materials. This is considered in two-folds. The first dimension of this challenge as described by the VITs connects effective teaching with the willingness of the school children to bring the appropriate learning materials. *“If you ask children to bring the materials they fail to bring them because their parents are not able to buy. Sometimes the learning materials have been provided by parents but the children refuse to bring the materials to school” (Field interviews, 2013).*

Another also remarked that;

*“Yes, you see there is a challenge but I think it is G.E.S accounting for this challenge. This is because the text books, they do have the soft copies of the text books and we as individuals cannot request for the soft copies from the publishers because of copy right issues. So our request has been that G.E.S besides providing the hard copy of major text books, should inform the publishers that there is a section of teachers who are visually impaired who need the soft copy version of these books to Braille” (Field interviews, 2013).*

As it was pointed out in the discussion on the resource needs, the friendliness of the environment is a deciding factor as to whether a VIT will implore the help of a sighted guide or not. Thus, the state of the environment particularly the infrastructural facilities within their respective school premises have relevance for effective teacher performance. Most of the VITs believe the physical structures and conditions in the school environments are not friendly and this affects how effective they contribute towards teaching and learning. It is noted,

*Because the area is not disability friendly sometimes I find it difficult to perform my normal duties and if I don't get the help of the teachers and pupils I cannot move around. Also there are items that have been placed on the veranda as well as the arrangements of*



*the stones on the compound and these are not friendly.....The structures are not friendly and if I want to go and urinate, I need get the assistance from some of the students (Field interviews, 2013).*

The respondents therefore perceived their respective school environments as not being accessible. Some of the colleague teachers agreed with this viewpoint expressed by the VITs. For instance, a co-teacher states that, *“Sometimes somebody has to help him climb up because of the stairs. Because he is visually impaired anything that goes on in the school, he does not see so it is difficult for him to contribute to certain decisions (Field interviews, 2013).* This is illustrated in plate 4. 1 below;



**Plate 4.1: School Structure and the Need for a Sighted Guide**  
**Source:** Field work, 2013.

#### 4.5 Strategies to Promote the Performance of the Visually Impaired Teachers

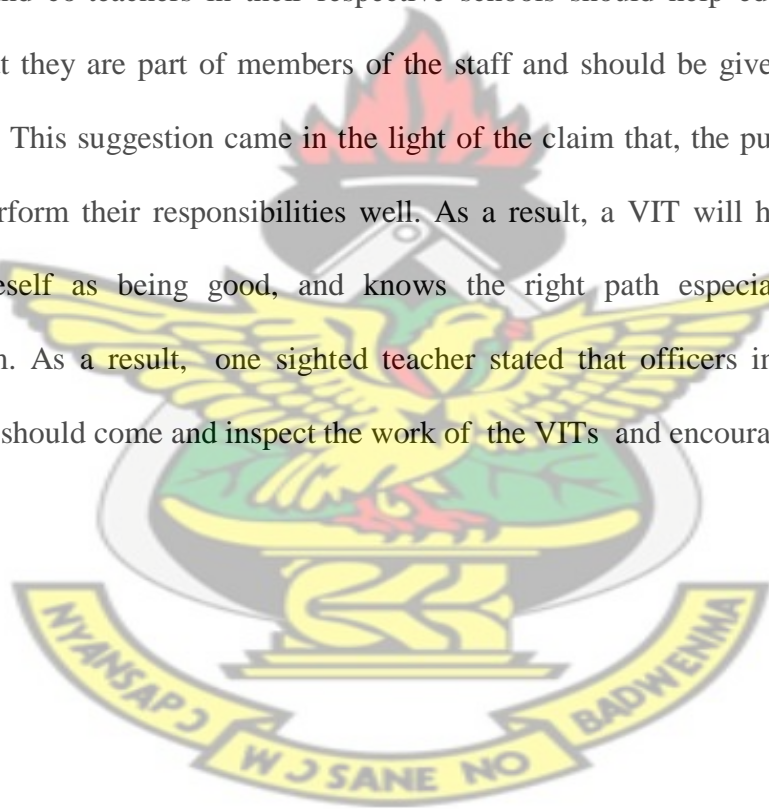
This section explains the suggested strategies which could help alienate the challenges which affect the performance of visually impaired teachers. In the first place, most of the respondents acknowledged that to overcome the limitations associated with unfriendly school environments, effective training should be given to the sighted guides. *“I think the guides should be given training on how to guide us. Financial assistance can also be given to them to aid our movement” (Field interviews, 2013).*

In another claim, the visually impaired teachers stated that as far as they are trained to teach in the regular schools, the education ministry has to make provision for them in terms of the provision of learning materials. For instance, the VITs proposed that, *“The Government should make sure that when distributing the hand books for teaching and learning, those of the visually impaired teachers should be in braille because that is the only way we can read the hand book” (Field interviews, 2013).*

In a related sense some explained that because they share responsibility in teaching of particular subjects with other sighted teachers, they argued that a policy could be enacted by the Ministry of Education (more precisely, Ghana Education Service) urging the sighted teachers to engage in all the marking, scoring, setting of the examination questions while the visually impaired teachers will also be given more credit hours to do the teaching. But for those who do not share teaching of a particular subject with sighted teachers, they argued for government’s intervention by assigning national service personnel to assist them in the marking, setting and writing of exams.

While Integration of technology in teaching and incorporating writing should be encouraged to promote performance of the visually impaired, it is noted that most of these teachers in the basic regular schools in Kumasi metropolis do lack access to these. One of the visually impaired teachers proposed that to ensure effective performance, the district assembly should provide visually impaired teachers with projectors and computers in their classrooms so that in teaching, they can type directly on the computers and this will be projected for the pupils to see and write.

Lastly, the VITs proposed that, as a way to boost teacher-pupil interaction, the head teachers and co-teachers in their respective schools should help educate the pupils to accept that they are part of members of the staff and should be given assistance where necessary. This suggestion came in the light of the claim that, the pupils think the VITs cannot perform their responsibilities well. As a result, a VIT will have to do much to prove oneself as being good, and knows the right path especially in the subject curriculum. As a result, one sighted teacher stated that officers in charge of special education should come and inspect the work of the VITs and encourage them to do well.



## CHAPTER FIVE

### DISCUSSION

#### 5.1 Introduction

This section discusses the key themes that emerged out of field findings in the light of the scientific literature reviewed and theoretical framework.

#### 5.2 Resource Needs of Teachers with Visual Impairment

From the conceptual framework as shown in figure 1.1, it was identified the resource needs of teachers with visual impairment can be delineated into two namely; human resources and material resources. The human resource needs of visually impaired teachers were measured by the teachers' access to sighted guides and resource persons and the disability management (Skandia, 1998).

The findings in this regard has revealed that, all the VITs interviewed acknowledged having sighted guides. But based on the views they expressed during the interviews, it was found that the assistance from a sighted guide was highly needed by these VITs to move in and around their environment. Most of the VITs acknowledged that the guidance they receive from these sighted guides has contributed to their general performance both at home and in school.

However, a few respondents did not appreciate this responsibility of sighted guides in their lives. As a result, they failed to recognize the viewpoint held by Stone (1997) that one's ability to move in and around one's environment can affect the individual psychologically, socially, emotionally, economically and physically. For this category



their concern was that the sighted guides have either received no or less training in order to give effective guidance. Thus, based on the findings, it was clear that if the VITs are to maximize the role played by the sighted guides in their lives, then much training of these sighted guides is required.

From the findings, it is undoubted that there are roles to be played by the resource persons aside the sighted guides, if the the teacher(s) with visual impairment are to contribute effectively in teaching in regular basic schools in the Kumasi Metropolis. Griffiths and Best (1996) have identified that the resource teacher engaged in a school has specific tasks to be undertaken. These include: advice on the physical environment including lighting and contrast; help with delivering the curriculum to sighted students; suggestions for modifying classroom materials so they could be used by the sighted pupils; advice on presentation of activities on specialized teaching strategies; and providing staff with an understanding of the nature of the visual impairment and its effects on teaching.

While the findings suggest that, there is the urgent need to engage specialist teachers or resource teachers to assist in basic regular schools in the Kumasi Metropolis, it needs to be stressed that the roles being played by some pupils and co-teachers in providing feedbacks on the teaching activities of VITs is commendable. Therefore, there is the need to create the responsive environment which facilitates increased performance from these visually impaired teachers teaching in regular basic schools in the Kumasi metropolis.

As it was found, those who have assistance from their co-teachers can be perceived to be effective than those who do not have such assistance. This is because teachers work most effectively when they are supported by other teachers. Koch and Burghardt (2002) have explained that the sort of interaction a particular teacher has with the co-teachers also



shapes the performance in school since they critically review and improve teaching through the exchange of ideas with their peers. The enabling environment to enhance performance can be achieved by being responsive to change and improvement through in-service education or training. In line with this Roy (2001) has argued that the purpose should clearly be restricted to learning outcomes related to the improvement of performances of the teacher.

On disability management, an outstanding argument is the need to promote social protection policies and priorities for the VITs. This is because only two of such teachers had residence facilities within their school premises. In addition, some VITs complained that they are discriminated on the basis of the subjects they are assigned to teach in their respective schools. While it was clear that the assignment of subjects to teach is based on the specialization of the respective teachers. However, if a person is discriminated on the basis of the disability not lack of the appropriate expertise, that contravenes the disability Act 715 (2006) in Ghana which enjoins employers not to discriminate against any prospective employee on the grounds of disability unless the disability will affect the relevant employer.

The supply of necessary material resources to enhance teaching by VITs was found to be low within the selected schools within the Kumasi Metropolis. As was pointed out, those VITs who had some of the teaching learning materials acquired these on their own. A major concern is the fact that, access to and usage of computer and other accessories like pen drives and projectors were highlighted to be fundamental material resources should be provided by schools to help VITs carry out effective teaching. According to Aitken (1997) such devices and other non/technological solutions, including human or personal reader services have offered access to the ink print page.

It is important to state that, the relevance of technology cannot be underestimated in the lives of VITs because it provides a means of accessing information which is less dependent on the goodwill of others. It is possible for teachers with visual impairment to access a wide range of up-to-date journal articles through the internet or other specialized services. These articles can be downloaded to a personal computer to be read by a screen reader through speech, magnification or Braille.

Based on the research findings, it was perceived by respondents that accessibility of these resources; both human and material by the visually impaired teachers in basic regular schools in the Kumasi Metropolis is a challenge. This was in recognition of the fact that, most of VITs lack in major sense the human and material resources needed to enhance their performance. This was partly linked with the fact that, incorporate technology has not been part of the teacher training and other in-service training programmes.

### **5.3 Factors Determining the Performance of Visually Impaired Teachers**

Teacher performance according to Fwu and Wang (2002) is synonymous with teacher quality which is connected with teacher training. They emphasized that, teacher training should develop content knowledge, pedagogical skills, the ability to reflect and to empathize, managerial competency, commitment, moral conduct, the ability to adjust and improvise, the capacity to collaborate with other teachers, the ability to advance the profession of teaching, and to contribute to society at large.

Based on these parameters highlighted above, it was found that the VITs through their educational attainment have become competent in the preparation and use of Teaching and Learning Materials (TLMs) as well as classroom management which are fundamental

in teaching at the basic schools. However, in a similar study conducted by the Ministry of Education and Culture in Mozambique, it was identified that teacher competence and teacher performance are related to pupil performance in the classroom (Medley and Shannon, 1994).

Thus, measuring the performance of the pupils being taught by these VITs, it was perceived that their academic achievements have been remarkably low. This was because the pupils do not understand what is taught by these VITs and this they believed was as a result of their inability to see and demonstrate using the appropriate techniques and TLMs. But Medley and Shannon (1994) hold the claim that the relationship between teacher performance and students' achievement may be tied with the professional knowledge concept. They define the concept of professional knowledge to consist of knowledge about the kinds of teacher behaviour which is known to be effective in helping students progress toward important educational goals.

In this regard, there is the need for VITs and teachers in general to enhance their communication skills to facilitate effective teaching at the basic level. Because the pupils complained in this study that the way some of the VITs communicate in English language affects their teaching and how the pupils' understand the lessons being taught. In the light of this, a major recognition was that, some of the VITs understood that effective performance is built on good teacher-pupil relationship. However, one challenge that limited the role of teacher-pupil relationship in promoting effective teacher performance was mockery of the VITs by some students. This comes to buttress the need for social protection policies and priorities for VITs teaching at the basic level especially in the Kumasi Metropolis.

Whereas most of the VITs indicated they have been given the appropriate training in aspects relating to subject matter, professional knowledge and general pedagogy as emphasized by Passos (2009), a key concern they recounted which affects their effective performance is the availability of teaching and learning materials. This was considered in two-folds. The first dimension of this challenge as described by the VITs connects effective teaching with the willingness of the school children to bring the appropriate learning materials. Secondly, some of the VITs also believed that, they cannot make up for the deficiencies in curriculum unless they have access to the appropriate material from the Ghana Education Service (GES) the major stakeholder of education in the country.

While Howie and Plomp (2005) argue that, the teacher is the key player on the educational stage and is often expected to make up for the deficiencies in the curriculum and in educational resources, some of the VITs also believed that, they cannot make up for the deficiencies in curriculum unless they have access to the appropriate materials from the Ghana Education Service (GES), the major stakeholder of education in the country. And for those who wish they could fill such deficiencies, they complained of not having soft copies of the text books so that they can easily braille.

Some VITs in particular had challenges with the preparation of teaching and learning materials (TLMs) and this is because they were not adequately prepared to handling some task during their training process. It is therefore necessary that the teacher training process incorporate the foundation series to guarantee effective teacher performance. This is similarly shared by Siddiqui (2010, p.2) that, “the training process of the teacher must be accorded the highest priority by everyone concerned for improving the deliverance of education”.



Considering that these teachers have already completed their training process, there is the need to engage them through in-service training so as to enhance performance. According to Roy (2001), the purpose of the in-service training or education should clearly be restricted to learning outcomes related to the improvement of performance of the teacher.

The state of the environment particularly the infrastructural facilities within their respective school premises have relevance for effective teacher performance. Most of the VITs believe the physical structures and conditions in the school environments were not friendly and this affects how effective they contribute towards teaching and learning. It is because the school environments were not accessible. Though accessibility is variedly understood, it connects with the ability to access, the functionality, and possible benefit of some system or entity and is used to describe the degree to which a product such as a device, service, and environment is accessible by as many people as possible.

#### **5.4 Strategies to Promote the Performance of the Visually Impaired Teachers**

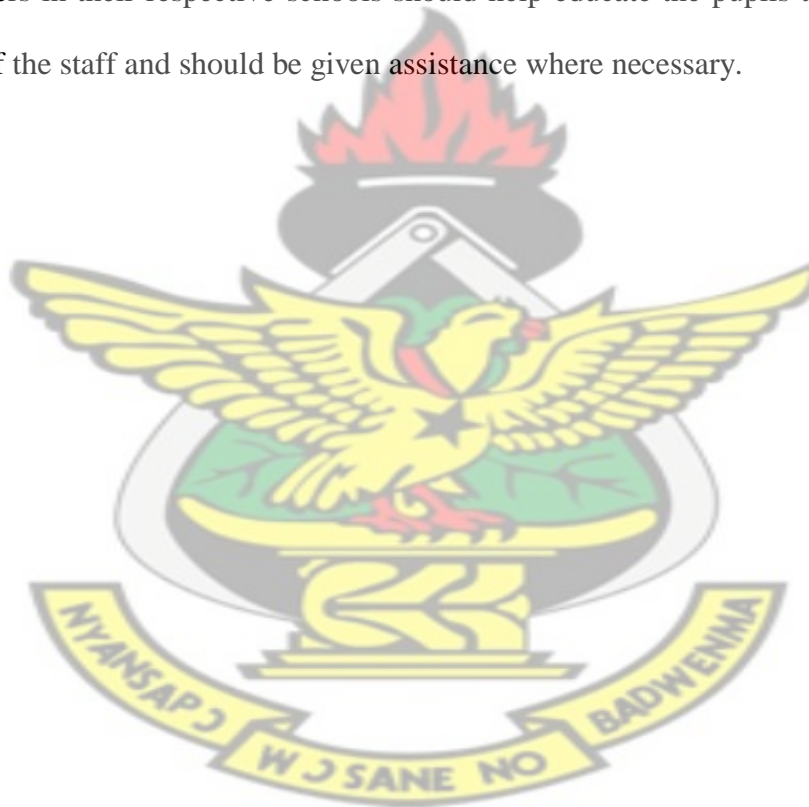
The major strategies highlighted to have the potential of enhancing the performance of visually impaired teachers in basic regular schools include training of their sighted guides for them to offer effective guidance in movement since most of the school environments are not disability friendly. To motivate their sighted guide, it is also proposed that, some form of financial remunerations should be offered them.

Another strategy identified is the call by the VITs that the Ministry of Education and other relevant stakeholders should give them special consideration by ensuring their teaching and learning materials are in the braille form. Because these VITs also have challenges with the setting, marking and scoring of examinations and assignments, they proposed that a policy should be enacted that gives them exclusive rights to only teach



whiles their colleague sighted teachers will perform the setting, marking and scoring of examinations and class assignments. Nonetheless, some perceived national service persons could be assigned to them in these responsibilities.

To promote the integration of technology in teaching and learning activities of VITs, it is proposed that, the district assembly should provide visually impaired teachers with projectors and computers in their classrooms so that in teaching, they can type directly on the computers and this will be projected for the pupils to see and write. Also connected with the challenge of poor teacher-pupil interaction, it is noted that the head teachers and co-teachers in their respective schools should help educate the pupils to recognize VITs as part of the staff and should be given assistance where necessary.



## CHAPTER SIX

### CONCLUSION AND RECOMMENDATIONS

#### 6.1 Introduction

This chapter gives the conclusion drawn from the research findings and discussion. It also presents the recommendations made for policy and research.

#### 6.2 Conclusion

The role of teachers in the development of society cannot be overemphasized. However, those teachers with visual impairment are perceived to have pronounced challenges due to their disability. And this study has provided a holistic discussion on the challenges faced by teachers with visual impairment in the Kumasi Metropolis.

Building on the scientific literature on the research subject area, it was identified that accessibility of resources for teaching and learning is a major challenge among the visually impaired teachers. Therefore the first and second objectives of the study sought to identify the resource needs and how accessibility of such resources are a challenge for the teachers with visual impairment in the Kumasi Metropolis. It was found that the major resource needs of the visually impaired teachers were categorized into two; human resource needs (sighted guides, resource person and disability management) and material resources.

In terms of human resource needs, the VITs identified their need for sighted guides because they were limited in the ability to move around. It was also found that all the sighted guides had either received no or less training on effective guidance and poorly

remunerated. It was further identified that, none of the schools where these visually impaired teachers taught had a specialist teacher (resource teacher). But that notwithstanding, the VITs received some assistance from some of their pupils, family members and colleague teachers in teaching and learning. The findings in terms of disability management revealed that only two of the VITs have accommodation facilities located within their school compounds. In addition, the VITs were discriminated on the basis of subjects they could teach.

The material resource needs of the VITs ranged from Braille syllabus, teachers' handbooks, students' textbooks, Braille sheets to copy notes and set questions; and personal computers. While some of the VITs have been able to obtain some of these materials through personal efforts, it was noted that, access to and usage of computer and other accessories like pen drives and projectors were highlighted to be fundamental material resources required to enhance teaching by the VITs. It was perceived by the research respondents that accessibility of these resources; both human and material is a challenge for the visually impaired teachers in basic regular schools in the Kumasi Metropolis.

The third objective has considered the factors that determine the performance of teachers with visual impairment in Kumasi Metropolis. The research findings indicated that teacher competence; teacher-pupil relationship and interaction; availability of teaching and learning materials; and conditions of the school environment were the major factors that measure the performance of a VIT teaching in basic regular school in the Kumasi Metropolis. All the VITs had the required educational qualification and training and have become competent in the preparation and use of TLMs as well as classroom management. But majority of the pupils noted that their academic achievements have not been

remarkable because they do not understand what is taught by these VITs as a result of their inability to demonstrate lessons with teaching learning materials.

Some of the VITs however understood that effective performance is built on good teacher-pupil relationship. Another concern that affected the performance of the VITs teaching in basic regular schools in the Kumasi Metropolis was the non-availability of some teaching and learning materials. As a result, the VITs also believed that, they could not make up for the deficiencies in curriculum unless they have access to the appropriate material from the Ghana Education Service (GES). The state of the environment particularly the infrastructural facilities within their respective school premises affected the performance of the VITs. Most of the physical structures and conditions in the school environments were not friendly and these make the school environments not accessible.

In the light of these factors that affect the performance of teachers with visual impairment, the last objective of the study sought to identify the strategies put in place to help these teachers with visual impairment overcome these challenges. The research respondents stated training of the sighted guides, so that they can offer effective guidance for the VITs to move in and around their environment. To motivate these sighted guides, it was also proposed that, some form of financial remunerations should be offered them.

Another strategy identified was the call by the VITs on the Ministry of Education and other relevant stakeholders to give special consideration by providing them with the teaching and learning materials in braille form. Because these VITs also have challenges with the setting, marking and scoring of examinations and assignments, they proposed that a policy should be enacted that gives them exclusive rights to only teach whiles their colleague sighted teachers set, mark and score examinations and class assignments.

Nonetheless, some perceived national service persons could be assigned to them in these responsibilities.

To promote the integration of technology in teaching and learning activities of VITs, it was proposed that, the District Assembly should provide visually impaired teachers with projectors and computers in their classrooms so that in teaching, they can type directly on the computers and this will be projected for the pupils to see and write. Also connected with the challenge of poor teacher-pupil interaction, it was noted that the head teachers and co-teachers in their respective schools should help educate the pupils to recognize VITs as part of the staff and should be given assistance where necessary.

### **6.3 Recommendations**

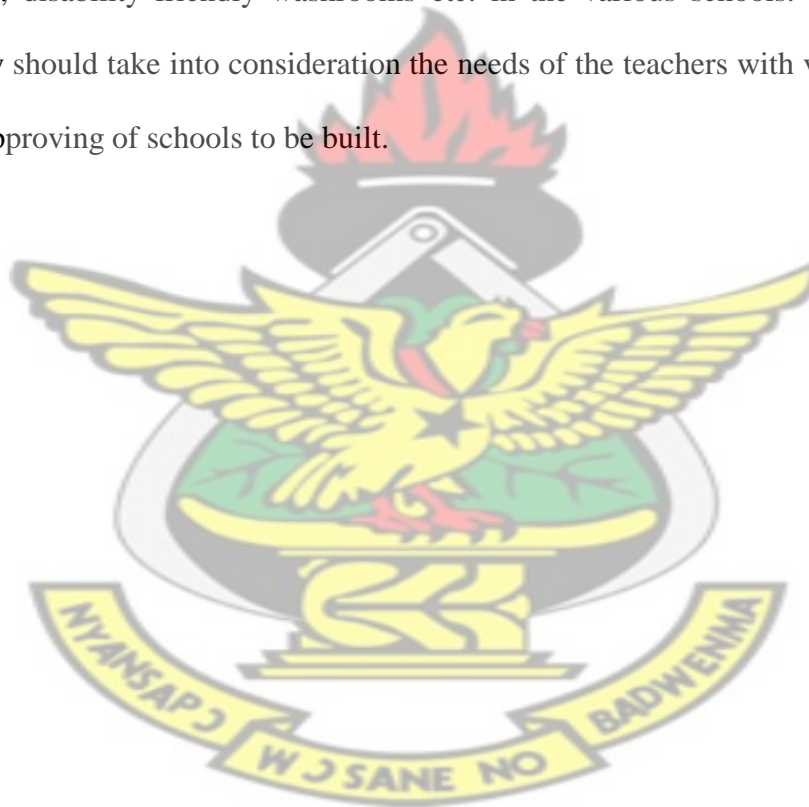
From the conclusions drawn from the study, the following recommendations are made in addition to those already highlighted for further research and policy implications on the subject matter.

1. Considering that these teachers have already completed their training process, it is recommended that VITs should be taken through periodic in-service training programmes to enhance performance. This recommendation if properly appropriated by stakeholders of primary education will help reduce to the barest minimum the challenge of VITs not being abreast with the curriculum and pedagogy of basic education.
2. It is recommended that, the Ghana Education Service and more precisely the Kumasi Metropolitan Assembly should consider the possibility of assigning resource teachers for visually impaired teachers teaching in basic regular schools in Kumasi.



3. It is important to note that, the relevance of technology cannot be underestimated in the lives of VITs because it provides a means of accessing information which is less dependent on the goodwill of others. Therefore, the researcher recommends that, access to and usage of computer and other accessories like pen drives and projectors should be available in schools with VITs since they considered these to be fundamental material resources required to enhance their teaching.

4. To improve upon the performance of teachers with visual impairment, there is also the need to improve upon the environmental infrastructure like building ramps, provision of elevators, disability friendly washrooms etc. in the various schools. The metropolitan assembly should take into consideration the needs of the teachers with visual impairment before approving of schools to be built.



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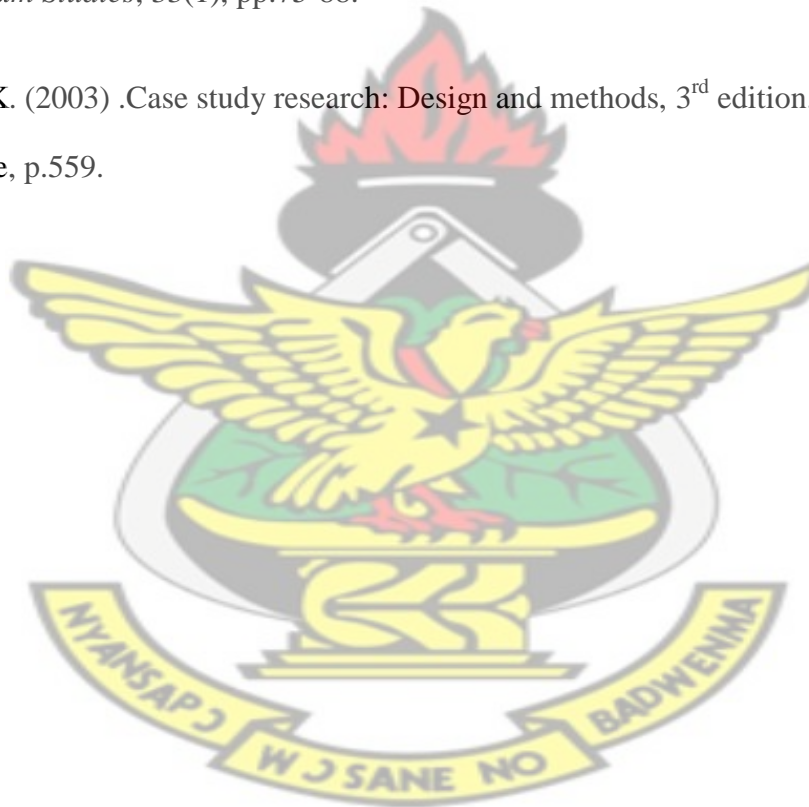
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**Appendix: Interview Guide for Visually Impaired**  
**THE CHALLENGES FACED BY TEACHERS WITH VISUAL**  
**IMPAIRMENT IN REGULAR SCHOOLS IN THE KUMASI**  
**METROPOLIS.**

**(Interview schedule For Teachers with visual impairment)**

Responses to these questions will be treated confidentially and only for research purposes.

Please feel free to give your candid opinion about your challenges

**SOCIO-DEMOGRAPHIC**

Age 18-25 ☐ 26-33 ☐ 34-41 ☐ 42-49 ☐ 50 years and above ☐

Sex: male ☐ female ☐

Teaching experience 1-5 years ☐ 6-10 years ☐ 11-15 years ☐ 16-20 ☐

21 years and above ☐

College/university attended .....

Name of school .....

Length of stay .....

Area of specialization .....

Highest level of educational qualification

Masters

1<sup>st</sup> degree

Diploma/HND

Others (please specify).....

**The available human and material resources in the schools(1st objective)**

1. Do you have enough materials and tools to work with?
2. How do you acquire materials and tools to aid you in your teaching?
3. What other materials and tools do you need to enhance your teaching?
4. How do you get to and from the school?
  - A guide
  - A taxi
  - A resource person
5. What assistance do you get in preparing your lesson notes before teaching?
6. What assistance do you get in setting, printing (writing), marking and scoring of class exercises and text?
7. What should be done to lesson your challenges?

**Accessibility as a challenge(2nd objective)**

8. What do you teach?
9. How do you get access to information on the subjects you teach?
10. Does the school environment look disability friendly?
11. A. If yes, what makes the school environment disability friendly?  
B. If no, what does not make the school environment disability friendly?
12. Would you consider the structures in the school friendly to the visually impaired?
  - Washroom
  - Safety guards etc.
  - Rest on stair case
  - lift
13. What do you do to cope with any environmental or structural challenges?
14. Do you think something can be done?
15. Do you think this has impacted on your performance as a teacher with impairment?

16. If yes how has it impacted on your performance?

**The effectiveness of the visually impaired teachers (3rd objective)**

17. What do you consider to be effective teaching?

18. What big challenge(s) do you face in teaching?

19. How well did your college / university prepare you for your career as a teacher who is visually impaired in the areas of

- Preparation and use of teaching learning materials(TLM(s))
- Classroom management
- Evenly distribution of questions in the classroom
- Assessment and evaluation of pupils performance
- Integration of technology in teaching
- Incorporating writing into your teaching

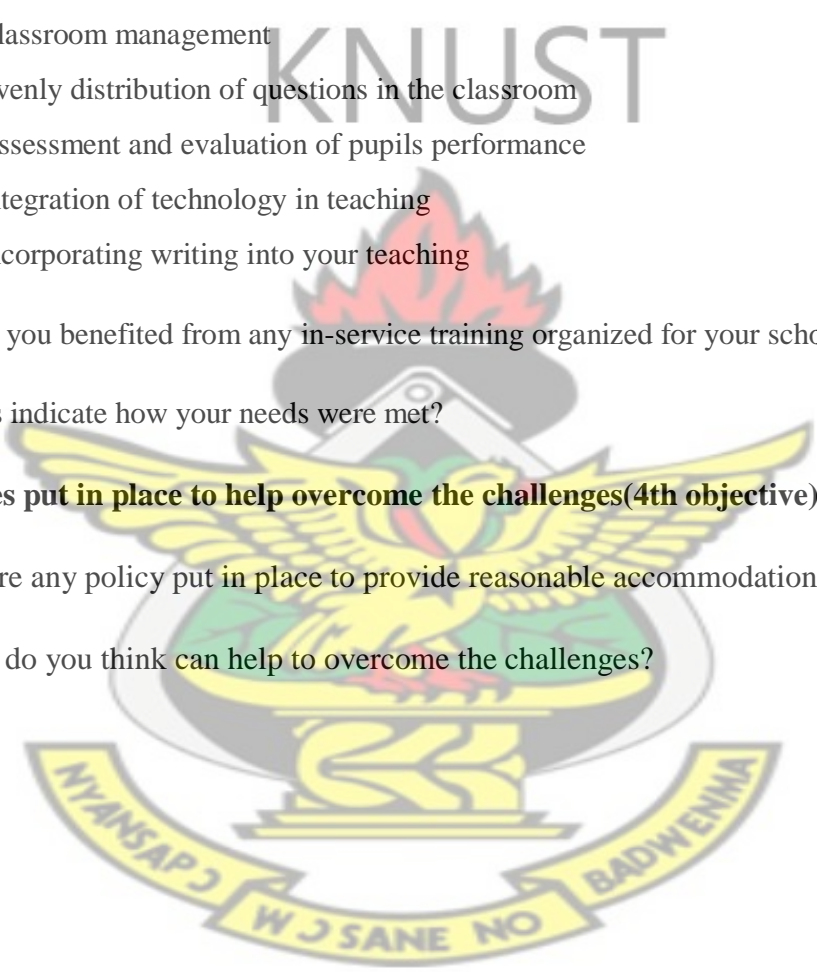
20. Have you benefited from any in-service training organized for your school or district?

21. If yes indicate how your needs were met?

**Strategies put in place to help overcome the challenges(4th objective)**

22. Is there any policy put in place to provide reasonable accommodation for you?

23. What do you think can help to overcome the challenges?



## Appendix II: Interview Guide for Pupils of Visually Impaired Teachers

### THE CHALLENGES FACED BY TEACHERS WITH VISUAL IMPAIRMENT IN REGULAR SCHOOLS IN THE KUMASI METROPOLIS

#### (Interview schedule for pupils of visually impaired teachers)

Responses to these questions will be treated confidentially and only for research purposes.  
Please feel free to give your candid opinion about your challenges

#### SOCIO-DEMOGRAPHIC

Age.....

Sex:

male

☐

female

☐

School.....

Class.....

1. How long have you known your teacher?
2. Does your teacher allow you to help him/her?
3. Would you like to help him or her?
4. Do you enjoy his or her lessons?
5. What do other pupils say about his or her teaching?
6. Is there anything that you don't like about this particular teacher?
7. If yes what?
8. What could teachers do to help the teacher teach well?
9. What subject does he/she teaches?
10. Do think his disability has impacted on his/her performance?
11. If yes, how has it impacted on his/performance?
12. What do you think can be done to help him?



**Appendix III: Interview Guide for Co-teachers of Visually Impaired Teachers**  
**CHALLENGES FACED BY TEACHERS WITH VISUAL IMPAIRMENT**  
**IN REGULAR SCHOOLS IN THE KUMASI METROPLIS**

**(Interview schedule for co-teachers of visually impaired teachers)**

Responses to these questions will be treated confidentially and only for research purposes.  
 Please feel free to give your candid opinion about your challenges

**SOCIO-DEMOGRAPHIC**

Age 18-25 ☐ 26-33 ☐ 34-41 ☐ 42-49 ☐ 50 years and above ☐

Sex male ☐ female ☐

Teaching experience 1-5years ☐ 6-10years ☐ 11-15years ☐ 16-20years ☐

21years and above ☐

Area of specialization.....

Name of school.....

Highest level of educational qualification

Masters

1<sup>st</sup> degree

Diploma/HND

Others (please specify).....

1. How long has he/she associated with you?
2. What challenge(s) does the visually impaired teacher face at school?
3. What assistance does he or she gets from staff members?
4. What else can be done to lessen the challenges of the visually impaired teacher?
5. How do you personally assess the effectiveness of the visually impaired teacher in your school?
6. What suggestions would you make to help improve his or her lesson delivery?
7. Would you recommend that teachers be given orientation to help visually impaired teachers in their schools?

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REPUBLIC OF GHANA

DATE: 30<sup>th</sup> January 2013

Our Ref. No GES/ASH/KM/MC.011640

Your Ref. ....

THE HEAD OF DEPARTMENT  
DEPARTMENT OF COMMUNITY HEALTH  
S.M.S – KNUST.

Dear Sir,

INTRODUCTORY LETTER FOR MS. AFUA NTOADURO  
TO EMBARK ON RESEARCH TITLED THE CHALLENGES  
FACED BY TEACHERS WITH VISUAL IMPAIRMENT IN REGULAR  
SCHOOLS IN THE METROPOLIS

Reference your letter on the above Topic dated 14<sup>th</sup> January, 2013 we are pleased to extend our assistance to Ms Afua Ntoaduro whenever is necessary to make her to be able to complete her research.

  
E. NAANA ABUDU (MRS)  
METRO DIRECTOR OF EDUCATION

## Appendix V Ethical Clearance



KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
**COLLEGE OF HEALTH SCIENCES**



**SCHOOL OF MEDICAL SCIENCES / KOMFO ANOKYE TEACHING HOSPITAL**  
**COMMITTEE ON HUMAN RESEARCH PUBLICATION AND ETHICS**

Our Ref: CHRPE/AP/067/14

14<sup>th</sup> March, 2014.

Miss Afua Ntoaduro  
Department of Community Health  
School of Medical Sciences  
KNUST-KUMASI.

Dear Madam,

**LETTER OF APPROVAL**

*Protocol Title "Challenges Faced by Teachers with Visual Impairment in Regular Schools in the Kumasi Metropolis."*

*Proposed Site: Ghana Education Service, Kumasi Metropolis.*

*Sponsor: Principal Investigator.*

Your submission to the Committee on Human Research, Publications and Ethics on the above named protocol refers.

The Committee reviewed the following documents:

- A notification letter of 30<sup>th</sup> January, 2013 from the Kumasi Metropolitan Education Office (study site) indicating approval for the conduct of the study in the Metro.
- A completed CHRPE Application Form.
- Participant Information Leaflet and Consent Form.
- Research Proposal.
- Interview Schedule.

The Committee has considered the ethical merit of your submission and approved the protocol. The approval is for a fixed period of one year, renewable annually thereafter. The Committee may however, suspend or withdraw ethical approval at anytime if your study is found to contravene the approved protocol.

Data gathered for the study should be used for the approved purposes only. Permission should be sought from the Committee if any amendment to the protocol or use, other than submitted, is made of your research data.

The Committee should be notified of the actual start date of the project and would expect a report on your study, annually or at the close of the project, whichever one comes first. It should also be informed of any publication arising from the study.

Thank you Madam, for your application.

Yours faithfully,

Osomfuor Prof. Sir J. W. Acheampong MD, FWACP  
Chairman

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