UNIVERSITY OF CAPE COAST

INVESTIGATION INTO THE CHALLENGES AND MOTIVATION OF STUDENTS WITH VISUAL IMPAIRMENT TO COMPLETE THEIR PROGRAMME IN THE UNIVERSITY OF CAPE COAST

BY

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Thesis submitted to the Department of Educational Foundations of the College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for award of Master of Philosophy Degree in Special Education

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:…… Date:……

Name: .....

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature:…… Date:……

Name: .....

Co-supervisor's Signature:…… Date:…….

Name: .....

ABSTRACT

This study investigated the challenges of students with visual impairments and the factors that motivate them to complete their programmes of study in the University of Cape Coast. The study was purely qualitative with case study as its main design. The population of the study consisted of students with visual impairments in the University of Cape Coast. A total number of thirty students with visual impairments comprising nineteen males and eleven females formed the sample for the study. The census approach was used to select participants for the study. Semi-structured interview was used as research instrument and frequency distribution and percentages as well as thematic analysis were used to analyse the data. It was found out that the challenges confronting students with visual impairment in the University of Cape Coast were physical or environmental, attitudes of lecturers and colleague students, academic, technology and assistive devices, and financial constraints. The study also found out that the factors that motivated students with visual impairment in the University of Cape Coast were personal interest, belief in the capacity to succeed, and desires and aspirations. Others were grades, praise from peers and family, gainful employment, opportunity for career development and family support. Based on the findings of the study the University must make sure to consider all the factors that create challenges for students with visual impairment are remedied. The University must find ways of motivating students with visual impairment to enable them complete their studies. Also the University authorities must find means of supporting the students with visual impairment.

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DEDICATION

To Professor E. K. Gyimah.

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CHAPTER ONE

INTRODUCTION

Background to the Study

Persons with disabilities are found in every society around the world. Disability is one of the many markers of differences and people with disabilities tend to be marginalised or excluded from social activities especially education (Ntombela & Soobrayen, 2013). Disability is not new to most cultures of the world but the possibility of educating persons with disability looks more of a mirage than reality (Adebiyi, 2007; Yungungu & Ogalla, 2014). In many cultures, people with disabilities are viewed as having been cursed (Obani, 2004). In developing countries such as Ghana, there are still widespread primitive and superstitious beliefs about persons with disabilities even in the face of scientific research findings disputing the superstitious origins of disability. This stereotypical belief in society poses a lot of challenges to persons with disabilities in terms of enjoying their rights and privileges.

At a certain point in history, persons with disabilities were segregated from society as they were quarantined in institutions at the outskirt of cities and towns (Yungungu & Ogalla, 2014). Throughout history, persons with disabilities have been perceived as a threat to society and therefore have been denied certain rights and privileges such as education, employment, and full participation in community living. Though education and training are among the key pillars to community development (Yungungu & Ogalla, 2014) and have the potential to unleash the talents and potentials of all individuals, the education of persons with disability has not been easy for many societies.

Despite the emphasis on the right to education in the United Nations Convention on Rights of Persons with Disabilities, access to education at all levels especially at the tertiary level remains a greater challenge for individuals with disabilities. This is because these individuals mostly do not get the support they require to make their studies easy for them (Chataika, 2007). Bines and Lei (2011) pointed out that disabled children and youth appear to have very unequal access to education compared to nondisabled peers. Harrison, Hemingway, Sheldon, Pawson, and Barnes (2009) indicated that the climate of thinking about disability in higher education has been transformed over the last ten to fifteen years, so that disability issues are now acknowledged regularly within support work, site planning, admissions, learning and teaching, and assessment, albeit much remains to be done. Similarly, Chataika (2007) indicated that inclusion of disabled students in higher education has been gathering momentum in various countries, although until recently, it has not been under the spotlight. Scott (2009) summed it up by indicating that this population was once almost unheard of in postsecondary academic settings.

For students with disabilities in tertiary educational institutions, lack of necessary support services can render them socially and academically excluded and overly dependent (Tugli, Zungu, Ramakuela, Goom, & Anyanwu, 2013). Ramakuela and Maluleke (2011) indicated that integration of students with disabilities into higher education institutions presents a number of physical, social and attitudinal barriers at various levels of their education. Students with disability pose particular challenges to educational institutions not only in terms of gaining physical access to buildings, but also in relation to much wider access issues concerning the curriculum, teaching, learning and

assessment (Tinklin, Riddell, & Wilson, 2004). Najjingo (2009) noted that disability creates considerable social, economic and emotional cost to people with disabilities, their family and to the wider community towards realisation of their educational rights. This makes access to education for persons with disabilities very challenging.

It appears access, retention, and academic successes of individuals with disability in tertiary institutions are not easy tasks. This is because such individuals seemingly encounter challenges that obstruct their attempts to advance their career and professional development. Lyner-Cleophas, Swart, Chataika and Bell (2014) indicated that limited attention has been placed on addressing issues of access, retention, progression and participation of students with disabilities within higher education institutions. Gilson and Dymond (2012) also indicated that the accommodation of students with disabilities at the university is a complex process involving many entities.

Studies conducted elsewhere found that social exclusion, inadequate financial resources, lack of policy regulating disability in higher education, and poor societal attitude (Chataika, 2007) especially among lecturers and colleague students (UNESCO, 1997) were some of the challenges confronting students with disability in higher education. Tinklin, Riddell and Wilson (2004) also found other barriers to the participation of disabled students in higher education including teaching and learning, monitoring and evaluation, and staff development. Therefore, higher educational institutions which seek to increase accessibility for persons with disabilities and make their education as parallel as possible to those without disability should be in continual search for the best practices to accommodate the needs of such individuals. Gilson and Dymond

(2012) indicated that affording all students equal opportunities to succeed at the university is a measure of best practices and it is in the interest of higher education institutions to do so.

In tertiary institutions, the dynamics that militate against students with disabilities are multidimensional. Besides the fact that tertiary institutions are not initially and purposely built to accommodate students with disabilities like special schools, these students face challenges in terms of gaining physical access to infrastructure, negative attitudes from others, and lack of appropriate services and programmes (Johnson, 2006; Obiozor, Onu & Ugwoegbu, 2010; Tugli, Zungu, Ramakuela, Goon, & Anyanwu, 2013; Zisser, 2011). These challenges make access to tertiary education more difficult for young adults with disabilities than for young adults on the average (OECD, 2011).

Oduntan (2004) pointed out that there are many primary and secondary schools worldwide which were built for the blind and visually impaired specifically, however no tertiary educational institution is built purposively for this category of disabled students. This therefore, presupposes that the philosophy of inclusive education had rather began at institutions of higher learning. Even if students with disabilities obtain their basic and high school education in separate special schools, they have no options at the tertiary level than to join their counterpart non-disabled students in the mainstream tertiary institutions. That is why a number of persons with disabilities especially those with visual impairments enrol and graduate with various degrees in the universities in Ghana. However, such a great feat among students with visual impairments may not come without challenges.

All over the world there has been an increased enrolment for individuals with disabilities and those with special educational needs into educational institutions especially higher education (Bruder & Mogro-Wilson, 2010; Heiman, Almog & Godder, 2006). The 1994 Salamanca statement has brought an increased enrolment of individuals with disabilities and special educational needs to all levels of education (Lyner-Cleophas, Swart, Chataika & Bell, 2014; UNESCO, 1994). However, it appears this significant increase in enrolment of such individuals has not come with the corresponding increase in the support systems and services they require and hence their success in tertiary institutions remains a challenge.

In Ghana, the Persons with Disability Act, Act 715 guarantees the visually impaired appropriate educational services at all levels of education (Persons with Disabiltiy Act, 2006, Act 715). In spite of both national and international legislations guaranteeing the visually impaired access to education, it appears such individuals go through a lot of challenges in accessing education at all levels in Ghana. Heward (2013) stated that "abstract concepts, analogies, and idiomatic expressions can be particularly difficult for children who cannot see" (pg. 348). It was further argued that it is plausible to believe that the academic problems for the visually impaired children are not apparent in the early years of school, but as the academic content becomes increasingly abstract and interrelated, the special problems of the blind child become more of an educational handicap. There is therefore the need for special modifications to be made for the visually handicapped individuals towards the full realisation of their potentials in educational institutions. Yungungu and Ogolla (2014) stated that given the tools and support to receive

education and gain useful skills, the person with visual impairment can live a fully realized life and become very productive member of society. Therefore, higher educational institutions that are charged with the responsibility of manpower training and development in every society, must provide the visually impaired the needed support for their academic and professional development.

In Ghana, higher educational institutions provide opportunities for career and professional development for the visually impaired. In the University of Cape Coast (UCC) for example, a number of visually impaired individuals who successfully complete their high school courses get admission into the University for professional training and career development. It must however, be noted that, the success of the students with visual impairments in the University depends largely on the support services that are provided for them. Like other marginalised groups in society, it appears the visually impaired are unable to receive the support they need to maximise their potentials when they enter the universities and this makes their career development in the universities more challenging (Riddell, Wilson & Tinklin, 2002).

UNESCO (1997) indicated that there seem to be a lack of appropriate action in providing equal opportunities for the disabled. It was argued further that, in general, tertiary institutions are not well prepared to accommodate persons with disability. Although laudable progress has been made to ensure disability inclusion, much still needs to be done within the tertiary sector (FOTIM report, 2009 – 2011). There is therefore a need to investigate the experiences of the visually impaired in tertiary institutions especially in Ghana

where such studies remain underrepresented in research literature. This research will expose the challenges experienced by the students with visual impairment in UCC.

The University of Cape Coast is one of the traditional universities in Ghana that provides university education for persons with visual impairments. The University has a resource centre; Resource Centre for Alternative Media and Assistive Technology (RCAMAT) for students with visual impairments in the University. In spite of the access and provisions for students with visual impairment in UCC, it appears the educational and academic development of such individuals remains a greater challenge. This has informed the need to investigate the experiences of the students with visual impairment in UCC so that when the challenges that impede their studies are identified, efficient and appropriate support systems can be put in place to ensure their success in the University.

Statement of the Problem

Several studies conducted to find out the experiences of the students with visual impairment in tertiary institutions have found a number of challenges confronting them in their educational and career pursuit (Odiango, Wamukoya & Njororai, 2010; Gondo & Gondo, 2013). However, it appears there are no or perhaps limited scientific investigation into the challenges of the visually impaired in tertiary institutions in Ghana. This has prompted the need to conduct such an investigation.

A research conducted in the United Kingdom by Riddell, Wilson and Tinklin (2002) found out that even when disabled students start out with comparable qualifications to other students in the same university, they tend to

encounter more barriers to learning and to achieve lower outcomes in terms of final degree classification. This suggests that students with disability encounter lots of challenges which setback their career pursuit in tertiary institutions.

In spite of the enrolment of students with visual impairments in UCC, they are likely to encounter a number of perceived challenges and likely to dropout. My personal observations revealed that most of the students with visual impairments who enrol for various degree programmes in UCC complete their courses of study within the stipulated duration of their programmes. The question therefore, is what factors motivate them in the pursuit of their career in the face of adversities encountered during their studies in the University?

A critical review of literature showed that not much research has been done regarding factors that motivate the visually impaired in the pursuit of their career despite the challenges they encounter in tertiary institutions. There is therefore a gap in our understanding in terms of the factors that motivate the students with visual impairment in tertiary institutions that needs to be investigated. It is upon this background that I intend to investigate the challenges and motivation of the students with visual impairment in UCC.

Purpose of the Study

The purpose of the study was to investigate the challenges and motivation of the students with visual impairments in UCC. Specifically, this study sought to:

1. Identify the challenges experienced by the students with visual impairments in UCC.

2. Find out the factors which motivate the students with visual impairments in the course of their studies in UCC.
3. Determine the ways by which the students with visual impairments can be assisted to achieve their best in UCC.

Research Questions

To guide the conduct of this study, three research questions were posed.

1. What challenges do students with visual impairments encounter in UCC?
2. What factors motivate the students with visual impairments in UCC to complete their programmes?
3. How can the students with visual impairments be supported to achieve their best in UCC?

Significance of the Study

The results of this study would help in finding out what challenges students with visual impairments encounter in UCC. This would enable the University authorities try to address any challenges they face.

The findings of this study would also help in revealing the factors that motivate the students with visual impairments to do their programmes in UCC. This would also enable the University authorities find means of motivating these students.

Furthermore, the results of this study would help in finding out ways to determine by which students with visual impairments can be assisted to achieve their best in UCC. This would also enable the University of Cape Coast authorities find ways of determining how to assist the students to achieve

their best in UCC. Finally, the results of this study would add up to the existing literature for other researchers interested in similar studies.

Delimitation

The study focused on the students with visual impairment in UCC because I was studying in this University and had observed a number of students with visual impairment in the University. The study was also delimited to only students with visual impairment. This is because among the various disability conditions the students with visual impairment constitute a conspicuous group and has a resource centre in UCC. Finally, the study focused on challenges, motivation and support for the students with visual impairment and not their academic performance.

Limitations

The qualitative nature of the study limits its generalizability. Since the study focused on a small group of students and also within one institution, generalization of the study is limited. The study was also limited by self-serving biasness among the participants. This is because they responded to questions from their own personal point of view rather than institutional or others' point of view.

Definition of Terms

Vision: - it is the ability to see.

Impairment: - it is loss or damage to part or all of a body organ, system or structure.

Visual impairment: - is the loss or reduced ability to see due to structural, cortical or refractive errors.

Blindness: - total loss of the ability to perceive light.

Low vision: - refers to the ability to see objects that are near but difficulty in seeing things at distance. It also refers to the ability to use residual vision for learning.

Motivation: - refers to the initiation, direction and persistence of effort towards a goal.

Challenge: - a situation or condition that makes it difficult for a person to achieve a goal or a desired outcome.

Disability: - it is a loss of a particular body part or organ that makes a person unable to perform certain tasks in the same manner as most persons without disabilities.

Organisation of the Study

The study is organised into five chapters. In chapter two, literature review was discussed with a focus on the objectives of the study and the research questions. Theoretical explanations of motivation as well as empirical studies on challenges and motivation of the students with visual impairment in tertiary institutions were discussed in this chapter. Chapter three discussed the methodology of the study. Precisely, chapter three discussed issues pertaining to research design, population, sample and sampling techniques, data collection instruments and procedures, as well as data analysis procedures. The results and findings of the study were discussed in chapter four. The study concluded with summary, conclusions and recommendations in chapter five.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter presents the literature reviewed for the study. The areas covered are:

1. The theoretical framework.
2. Challenges students with visual impairments encounter.
3. Factors that motivate students with visual impairments to complete their programmes.
4. Ways students with visual impairments can be supported to achieve the best.

Theoretical Framework

This section of the literature review considers some theories of motivation and how they contribute to our understanding of why the students with visual impairment persist in their academic pursuit despite the perceived challenges they encounter in higher institutions.

Theories of Motivation

Theories of motivation attempt to explain the factors that compel humans and animals to pursue certain goals in order to satisfy their needs. In this study, three theories of motivation were adopted to explain the challenges and motivation of students with visual impairments in UCC. These theories are; Maslow's hierarchy of needs theory, expectancy theory and self-efficacy theory.

Maslow's Hierarchy of Needs Theory

Human needs are varied and insatiable. At every point in time, humans have a need that must be satisfied. Some of these needs are physiological (for survival and existence) while others are psychological (growth and development of potentials). Maslow's Hierarchy of Needs Theory is one of the earliest theories of motivation that help us to understand the varied nature of human needs and the various stages an individual passes through in an attempt to satisfy these needs. In the 1950s, Abraham Maslow proposed a five-stage theory of needs which are activated in a hierarchical manner (Kaur, 2013). Maslow arranged his stage theory hierarchically in order of priority. That is humans seek to satisfy the most important needs first especially those pertaining to their survival before moving on to other needs. The various needs he proposed in his theory in order of priority include; physiological needs, safety and security needs, love and belonging needs, self-esteem needs and self-actualisation needs.

According to Maslow, until a person satisfies his lower level needs, there will be no motivation to pursue higher order needs. If a person is unable to satisfy his lower order needs, a real challenge ensues and this motivates the individual to take steps to overcome that challenge. In the same vein if a person is able to meet his or her lower order needs, he or she gets the motivation to pursue higher order needs. Weiten (2006) indicated that Maslow's theory assumes that people have many needs that compete for expression. He indicated that Maslow's hierarchy of needs is a systematic arrangement of needs according to priority which assumes that basic needs must be met before less basic needs are aroused. When a person manages to satisfy basic level

needs reasonably well, this satisfaction activates needs at the next level.

Weiten (2006) indicated that achievement motive which is found on the fourth level of Maslow's hierarchy is the need to master difficult challenges, to outperform others, and to meet high standards of excellence. This theory has some practical significance in understanding the challenges and motivation of the visually impaired in their pursuance of higher education.

Like all other individuals, the visually impaired go through these stages in pursuing their goals and aspirations in life. For the visually impaired to reach the utmost level of their academic prowess and hence actualise their potentials, the basic needs proposed by Maslow must be available. For example, they must have adequate food and water so that they will have the energy to go about their academic work. In UCC where life is highly individualised, it is required that the visually impaired have enough money to be able to provide their physiological needs. Without adequate funds to meet their basic needs, they might not be able to pursue higher order goals such as achieving academic excellence and hence there might be a discrepancy between their potential and their actual performance.

Relating his theory to education, Maslow indicated that regarding lower level needs, if a student is hungry or thirsty, it is more difficult to focus on learning. Also if the environment is physically, mentally or emotionally unsafe, then it will be hard for the student to put all of his or her attention on learning. If the teacher is always critical of the student, then the student probably will not feel accepted or that he or she belongs. Low self-esteem and ego will make the student feel unappreciated and unrecognised. As such, the educator must do what is necessary to support the student to a higher level of need satisfaction so

that the student can focus his or her attention on learning. Even at the level of self-actualisation, the educator may need to provide encouragement or opportunities (Maslow, 1943 cited by Williams & Williams, 2011).

Two key concepts inherent in Maslow's theory that must be borne in mind regarding challenges of life and the motivation to progress are "Satisfaction Progression" and "Frustration Regression" (Ball, 2012; Yang, Hwang & Chen, 2011). Satisfaction progression means that when lower order needs are satisfied, the individual gets the motivation to pursue higher order needs. That is, if physiological and safety and security needs are met, then there will be a motivation to seek love and belonging, self-esteem, and self-actualisation needs in the order of progression. However, if an individual's pursuance of higher order needs is frustrated, he or she regresses to pursue lower level needs and this phenomenon is called "Frustration Regression" (Yang, Hwang & Chen, 2011).

These two concepts can be explained in terms of the career development and progression of the visually impaired students in tertiary institutions. If their physiological and safety and security needs are met, then there will be the motivation to pursue higher order needs such as academic excellence and hence increase their chances of succeeding academically. On the other hand, if their pursuance of higher order needs such as academic excellence is frustrated because of the numerous challenges perceived to be confronting them in their pursuance of higher education, then they will regress to seek lower order needs. This may be a reason for the high dropout rate among the disabled students in higher institutions as reported by many

researchers (Ganapathi, 2014; Dutta, Scguri-Geist, & Kundu, 2009; Mpofu & Wilson, 2004).

Expectancy Theory

Expectancy theory can help us understand why the students with visual impairments persist in their education in higher institutions in spite of perceived challenges. Victor Vroom was the proponent of the Expectancy Theory in the 1960s with direct application to work settings. The theory posits that the strength to act in a particular way depends on an individual's beliefs that their actions will produce outcomes they find valuable and attractive. Fundamentally, this theory is a model about the choices we make. That is the amount of effort that is put forth on a task is something that people choose, and the choice involves three critical factors namely; expectancy, instrumentality, and valence (Chandan, 2005).

Expectancy explains the link between effort and performance on a task. It is the belief that a given effort will lead to success on the task. Levy (2006) defined expectancy as an individual's belief about the likelihood of achieving a desired performance level when exerting a certain amount of effort. Chandan (2005) also defined expectancy as a person's perception of the likelihood that a particular outcome will result from a particular behaviour or action. Expectancy can be conceptualised as the relationship between effort and outcome which is mediated by performance. That is, the belief that given a certain level of effort in task performance, an expected outcome will result.

Another factor is instrumentality. This explains the perceived link between task performance and reward (Levy, 2006; Chandan, 2005). That is the end result of the task performance. Valence which is the last factor

describes the value that is placed on task performance and rewards which includes expected level of satisfaction to be derived from some outcome (Levy, 2006). Putting it all together, the expectancy theory of motivation posits that an individual's intensity and persistence on task depends greatly on the expected outcome of the performance of that activity. Therefore the visually impaired persistence of effort in spite of all perceived challenges to complete their programmes of study in higher institutions depends greatly on the expected outcome of higher education.

Higher education does not only have the benefit of providing the labour supply for a country's economy, it also has practical significance for those who attain higher education certificates and degree awards. Higher education empowers young people to be economically self-sufficient and socially independent. It also raises their status in society as it puts them in a certain social class in the society. The prestige associated with higher education makes it a much desirable level of education for most youths in the society (Dada & Eni-Olorunda, 2014). Education in general and post-secondary education in particular, is a predictor of gainful employment in meaningful occupations, opening opportunities for career development, hence for quality of life (Dutta et al., 2009; Getzel, Stodden, & Brief, 2001). This finding is even more significant for people with physical and sensory disabilities whose range of employment is limited to jobs that require fewer physical abilities and skills (Kendall & Terry, 1996; McGeary, Mayer, Gatchel, Anagnostis & Proctor, 2003). Salmi and Bassette (2012) indicated that individual private benefits of attending higher education include improved health outcomes, increased earning potential and even greater life satisfaction.

This means that the outcome of higher education is desirable and so in spite of the challenges students with visual impairment encounter, they will persist in order to reach their desired goals and aspirations in life. That is the motivation to study (expectancy) among the students with visual impairment in order to acquire good grades and good final degree classification (instrumentality) and to obtain a well-paid job which will affect their status and their financial influence in society (valence) is underscored by the expectancy theory.

Self-efficacy Theory

Self-efficacy Theory posits that our ability to attain a particular goal is based on our belief of whether or not we can achieve that goal (Bandura, 1977). Self-efficacy theory of motivation emphasizes an individual's belief that he or she is capable of performing a task. Levy (2006) indicated that the Self-efficacy Theory refers to the individual's perceptions of their ability to successfully complete a task or attain a goal. The higher an individual's self-efficacy, the more confidence he or she will have in their ability to succeed on a task. In difficult situations, people with low self-efficacy are more likely to lessen their effort or give up altogether, while those with high self-efficacy will try harder to master the challenge. In addition, individuals with high self-efficacy seem to respond to negative feedback with increased effort and motivation, while those low in self-efficacy are likely to lessen their effort when given negative feedback. Sternberg (1995) indicated that one success leads to another; and we see ourselves as continually successful in obtaining the outcomes we desire. Bandura and Locke (2003) said that a strong belief in

one's performance efficacy or ability is essential to mobilise and sustain effort necessary to succeed.

The proponent of the Self-efficacy Theory argued that, there are four ways self-efficacy can be increased. The first he mentioned is enactive mastery which is gaining relevant experience with the task. That is if the individual was able to perform the task successfully in the past, then he or she is more confident that he or she will be able to do it in future. It therefore presupposes that the students with visual impairment's persistence in higher education despite the perceived challenges can be explained in terms of enactive mastery which underlies the Self-efficacy Theory. The visually impaired go through a lot of challenges in their education at all levels. Whether the impairment is congenital or adventitious, the visually impaired encounter challenges in their basic and high school education, yet they are able to make it to the tertiary level. Therefore their success in tertiary institutions can be inferred from the confidence they have as a result of their previous success at basic and high school levels of their education. Williams and Williams (2011) summarised this by indicating that success breeds success.

The second factor Bandura mentioned was vicarious modelling. This is where an individual becomes more confident because he or she sees someone else perform the task. There are a lot of visually impaired individuals who have reached the topmost ladder of academia in Ghana and elsewhere. Vicarious modelling suggests that the confidence the visually impaired have in persistence in their education may be as a result of their belief that others like them have been able to make it and so they too can equally make it. Thus, they look to others who have gone ahead of them and they are motivated.

The third element is verbal persuasion. This means becoming more confident because someone convinces you that you have the skills necessary to be successful. Thus the encouragement the visually impaired get from lecturers, colleague students, resource persons and their families give them the confidence to press on in the face of adversities they may encounter.

Finally, Bandura talked about arousal which increases self-efficacy. Arousal leads to energised state, which drives a person to complete a task. This means that the individual gets "psyched up" and trust in their own capabilities to succeed in a task. Thus the visually impaired psyche themselves and come to trust in their own capabilities which motivate them to continue and complete their courses in higher institutions, though challenges may abound. Scott (2009) found out that in an attempt to adapt to the university environment in the face of the challenges the visually impaired encountered, the responses were diverse.

While some students indicated that the adaptation was part of the process by which they converted challenges into opportunities and success, others expressed their concerns about certain aspects of integration into academic life, and they remained isolated and segregated in their departments, only hoping to finish the experience and move into the next stage of their life. Of the latter, some wanted to leave the university altogether, because they saw the challenges as the nature of college life. This buttresses the significant difference between those with high self-efficacy and those with low self-efficacy.

Among the theories that have been advanced, the Self-efficacy Theory underpins the current study. This is based on the belief that the successful

completion of higher institutions among the students with visual impairment in the face of the challenges they encounter resides in their belief that they can do it. Whether through enactive mastery, vicarious modelling, verbal persuasion, or arousal, the students with visual impairment are likely to have a strong belief in their abilities to succeed in their education. This confidence motivates them enough to succeed in their education. Sachs and Schreuer (2011) found out that students with disabilities were much more satisfied with their participation and achievements in higher education than students without disabilities. They indicated that perhaps their satisfaction stems from comparison with other friends with disabilities who were left behind, or from their feelings of success in spite of the challenges they face.

Conceptual Framework

The conceptual framework for this study was based on the Self-efficacy Theory which underpinned this study. The conceptual framework looked at the relationship among the variables such as challenges, motivation, self-efficacy and the attainment of goals (academic success). Figure 1 shows the conceptual framework for this study.

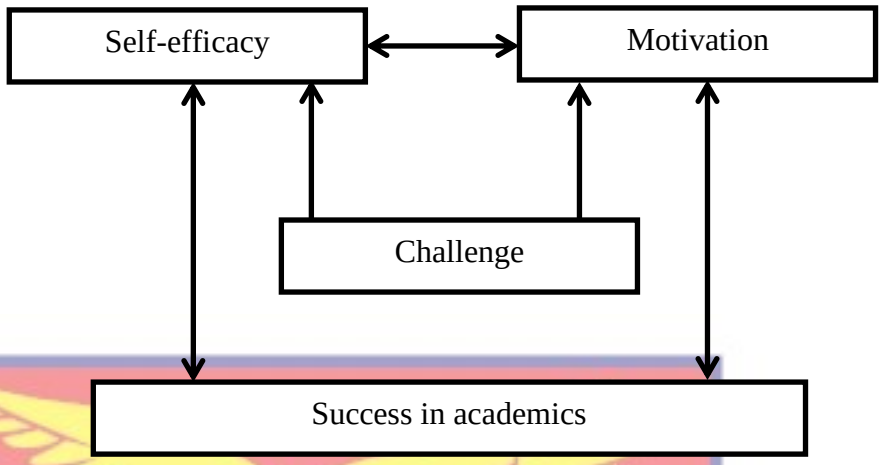

Figure 1: **Disability Self-Efficacy Model**

From the model above, it can be seen that challenges affect an individual's motivation and self-efficacy. Taking it from the right, when an individual goes through challenges, the challenge acts as motivation factor for the individual to press on. The individual's level of motivation will determine his belief in his ability to overcome the challenge (self-efficacy). This belief in an individual's ability may lead him into overcoming the challenge and hence achieving success. Taking it from the left, challenges test an individual's self-efficacy which in turn determines his or her level of motivation and consequently achieving success in the situation.

Though individuals with visual impairment may go through challenges in higher education, they can be motivated through enactive mastery, verbal persuasion, vicarious modelling or arousal. This motivation leads to a high sense of self-efficacy (belief in their ability to succeed) and people with high sense of self-efficacy press on towards the achievement of their goals (academic success). In the same vein, some students with visual impairment have high sense of self-efficacy leading to higher level of motivation and hence achieving academic success.

Empirical Studies

This aspect of review of literature will deal with various studies that have been done in this area. It will address various research findings that are relevant to this current study. It will give general information about disability and higher education, research findings about challenges of the visually impaired in higher education, factors motivating the students with visual impairment in higher education, and finally it will address support systems for the students with visual impairment in higher education.

Challenges Students with Visual Impairments Encounter

Jameel (2011) stated that disability in higher education has different implications from that of school education. Wolanin and Steele (2004) similarly indicated that the worlds of elementary and secondary education and higher education are fundamentally different with respect to educating students with disabilities. They pointed out that whereas elementary and secondary education is compulsory and no student with a disability may be rejected, higher education is voluntary and it rejects many aspirants. The phase of higher education is relatively different from that of basic and high school education in terms of policy and practice and hence students with disability are likely to experience more barriers in higher education than their non-disabled peers. In an attempt to pursue education beyond high school, students with disabilities face a range of challenges over and above those faced by post-secondary students without disabilities (Durham, 2004).

Though there has been a growing interest in higher education as an important arena in the distribution of life chances (Slowey & Watson, 2003), little is known about the daily lives and experiences of students and the ways in

which higher education institutions act as sites which reproduce or disrupt existing social inequalities (Field, 2003). UNESCO (1997) established that while a lot of effort has been put in improving basic education and secondary level education for disabled pupils, universities and other tertiary level institutions are not so well prepared to accommodate disabled students. This is partly because universities are not originally built to accommodate the needs of individuals with disabilities.

Almog (2011) found out that most of the students with visual impairments who succeed in enrolling in higher education institutions face many academic and social barriers and have to develop techniques, strategies, methods and skills to adjust to the university system which is experienced as a disabling environment. Khurshid and Malik (2011) indicated that visually impaired students who are receiving higher education face more problems as compared to students of secondary and intermediate level. Steyl (2010) pointed out that realizing the importance of the visual system in the learning process, it becomes apparent that visually impaired students could be challenged in their educational pursuit without the necessary support. Despite changes in many Western countries' legislation and the development of programmes for students with disabilities, in recognition of the importance of higher education for individuals, families, and society at large, low enrolment and high first-year dropout have been found (Ganapathi, 2014; Dutta, Scguri-Geist, & Kundu, 2009; Mpofu & Wilson, 2004).

Several studies have established the cause of low enrolment and high dropout rate especially among first year students with disabilities; inadequate accessibility of higher education institutions, lack of support, adverse social

attitudes and social isolation, as well as low financial capacity (Foreman, Dempsey, Robinson, & Manning, 2001; Jung, 2003; Johnson, 2006; McKenzie & Schweitzer, 2001; Mpofu & Wilson, 2004). Ganapathi (2014) stated that despite the changes in legislation and development of programmes for individuals with disabilities, these changes in legislation and development of programmes have not been translated in the entry of students to higher education because of various reasons: infrastructural facilities within institutions, attitudes towards persons with disabilities, transportation facilities, and lack of support services hinder the entry of students with disabilities into higher education. This means that the challenges confronting students with disabilities in tertiary institutions are multidimensional including: physical facilities, social support systems, technology and assistive devices, financial and attitudinal.

Shepherd (2001) indicated that the impact of visual impairment on an individual is as a result of the interaction between the impairment, the learning environment and its social organisation. This elucidates the findings by Fatima, Bashir, Malik, Safder, and Nayab (2014) who found different problems of students with visual impairment in higher educational institutions such as lack of braille printed books, lack of visual readers, teachers' inattentive behaviour, difficulties in taking exams and transport. Studies have indicated that despite the passage of legislation, some campuses remain inaccessible physically, programmatically, and attitudinally to many students with disabilities (Gilson & Dymond, 2012**;** Gilson, 2010; Kroeger & Schuck, 1993; Gilson, Dymond, Chadsey & Hsu, 2007). The result is often quite disturbing, as students with

disabilities are not likely to remain in their programmes of study compared to their non-disabled peers (Henderson, 2001).

Hatlen (2004) stated that blindness in human beings cause significant differences, not only in how they learn, but also in how they view their world and their interaction with others. Shaw (2000) stated that while people have impairments, the environment; attitudinal as well as physical environment can be disabling. He indicated that it is simplistic to attribute problems about disability to individuals who are said to have this or that disability, when the reality is that many such problems disappear when environments are accessible. Holloway (2001) indicated that inaccessibility of educational institutions further disables students with disabilities.

The social model of disability is therefore emphasised in terms of the challenges confronting the disabled students in higher institutions. The social model considers disability as a social construct and as a result of societal restrictions that prevent individuals with disability from equitable participation in society just like others without disability. Although there is little that staff in higher education can do to change the facts of students' impairments, there may be scope for altering the environment of higher education, which, like any environment, may be disabling (Shaw, 2000). That is if educational institutions are planned structurally, physically and attitudinally to integrate the individuals with disability into the normal school system, the impact of the impairment would be non-existing and hence the impact of disability would not be felt.

Education of the visually impaired seems to have a longer history than any of the other disabilities and special educational needs categories. Heward (1996) indicated that, in most countries, the education of children who are

blind is a high priority. He explained further that schools and other special programmes for children who are blind have historically been established before those for other groups of disabled children. Similarly, Okyere and Adams (2003) indicated that, of all the categories of exceptionality, the visually impaired were the first to receive any humane consideration.

Research has found that the students with visual impairment encounter various challenges in their career pursuit at all levels of education especially in tertiary institutions (Johnson, 2006; Obiozor, Onu & Ugwoegbu, 2010; Zisser, 2011, Tugli et al, 2013). This is partly due to the highly individualised nature of student life in tertiary institutions where everyone takes responsibility for himself or herself. Saksena and Sharma (2015) stated that higher educational institutions are places where students enter at a crucial stage which demands the formation of an independent personal and social identity. This can be very challenging for the students with visual impairment if pragmatic measures are not put in place to integrate them into the realm of higher education especially in Ghana.

Agesa (2014) indicated that learners with visual impairment are a heterogeneous group with varied nature of difficulties that require adequate attention in curriculum implementation in order to achieve good academic performance when placed in regular or mainstream institutions. Individual with visual impairments can be defined as those having a visual impairment which, even with correction, adversely affects their learning (Kirk, Gallargher, Anastasiow & Coleman, 2006; Heward & Orlansky, 2009; Hallahan & Kauffman, 2006; Cassin & Solomon, 2006).

Visual impairment is not a single condition, rather a range of conditions in the visual system. Generally, visual impairment can be defined in terms of the legal and educational definitions. The legal definition involves visual acuity and field of vision (Hallahan, Kauffman, & Pullen, 2009). Visual acuity is the ability to distinguish images at a specified distance (Okyere & Adams, 2003). Okyere and Adams again defined field of vision as the area which can be seen and it is reported in terms of degrees. Legally blind students have a corrected visual acuity of less than 6/60 which means that they can see at six metres what people with normal vision can see at 60 metres or a field of vision no greater than 20 degrees in diameter. Okyere and Adams indicated that a person with low vision or who are considered partially sighted are those with a corrected visual acuity of between 6/18 and 6/60.

Educational definition tends to focus on how well an individual with visual impairment can use vision for learning (Okyere & Adams, 2003). Educationally, a child who is blind is one who learns through the medium of braille (Hunt & Marshall, 2002). Educational definition includes total blindness, functional blindness and low vision. People with total blindness receive no useful information through the sense of vision and learn primarily through other senses (Heward, 1996). Functionally blind learners mostly learn through other senses but may be able to use vision to supplement the information from the other senses. Learners with low vision primarily use vision as a means of learning and with magnifying devices, may learn to use print (Okyere & Adams, 2003; Heward, 1996). The degree of visual loss would necessitate special educational adaptations to assist individuals with visual impairment (Turnbull, Shank, Turnbull & Leal, 1995; Dakwa, 2011). It must

be emphasized that vision loss has significant negative impact on learning activities due to the significant roles vision plays in the overall human existence and especially in education. Khurshid and Malik (2011) indicated that vision is a vital means of obtaining information from the environment, and lack of sight can severely limit a person's experience.

Shepherd (2001) indicated that the visual system can be justly considered as the dominant sensory modality in humans. He argued that almost half of the brain is devoted to sight, and about 70% of the total capacity of the brain devoted to processing sensory information is devoted to handling visual information. Winzer (1999) pointed out that over half of the information we receive about our world is taken in through vision. Heward (1996) indicated the tremendous importance of sight in obtaining accurate and thorough information about the world in which we live and especially in learning.

He indicated that many of the concepts that children with normal vision acquire almost effortlessly may not be learned at all by children with visual impairment or may be learned incorrectly unless someone deliberately teaches the concept to them. Vision enhances memory of experiences since what we see tends to last longer than what is heard or what we obtain through other senses. From the time you wake up until you go to bed, your eyes function as a recorder of events (http://www.knowswhy.com/why-is-sight-important/). The source indicated that these events will always be kept in your memory and will be part of your life until you die. Vision therefore provides a fundamental schema into which all other sensory experiences can be assimilated, accommodated and adapted. Vision helps us to relate well with our

environment as it helps us to create and recreate our schemas of the world through visual experiences, forming associations and drawing distinctions.

Yekple and Deku (2014) stated that vision is an integral part of standardised learning, therefore students who lack visual abilities often feel lost in a confusing educational maze. Baraka (2013) indicated that visual information is crucial in helping children observe and interpret what happens in the environment. It is also an important prerequisite for conceptual development in a student's learning. He indicated that malformation and destruction of this part of the body, brings about a reduced amount of sensory data to the learner, leading to deficit or delay in various skills learned through watching and imitation from others.

Bandura's (1973) Social Learning Theory emphasises the role of vision in learning. This theory states that learning occurs through observation and imitation. Therefore if there is loss of vision, the individual will have obvious limitations in learning since humans acquire a lot of learning through observing and practising what they observe. Murugami (2004) indicated that restricted visual input limits the amount of information received by students about their environment and people within their environment and can limit the type and quality of experiences available to them. There is therefore the need to make the lesson as practical and relational as possible so that the students with visual impairment can benefit from the classroom interaction in all educational institutions.

Before teaching students with visual impairments, it is very important that a teacher knows how the loss in vision influence the learning process (Sacks & Silberman, 1998). Spungin (2002) mentioned three ways by which

individuals with visual impairment get information from the external environment and the challenge they encounter. He argued that verbal description is the most important source of information for students with visual impairment. He however indicated that verbal description provided by others is always incomplete and cannot satisfy the person's needs.

Another way he suggested is the use of tactile stimuli. He however, explained that tactile method is also not effective, because a student needs to feel an object repeatedly in order to grasp the image of the object. Finally, he argued that students with visual impairments rely on self-exploration about the world. This way is limited in amount of information that can be accessible to students with visual impairments. All in all, these modalities together cannot effectively compensate for visual stimuli; they are there just to reduce the impacts to learning caused by lack of vision (Spungin, 2002).

Baraka (2013) stated that visual impairment impacts language development, reasoning skills, problem solving abilities and abstract thinking. This causes great impact on the individual's learning and performance because a student cannot observe and use visual information to interpret various learning situations happening in the environment (Bishop, 1996; Fraser & Maguvhe, 2008; Webster & Roe, 1998).

Visual impairment is a challenging condition which no one wishes to be born with or acquire in the course of life. Hallahan and Kauffman (2006) indicated that life without sight is hard to imagine and visual impairment is one of the most feared human conditions. History indicates that individuals with visual impairment attract sympathy than any of the other disability conditions. This explains the assertion by Heward (1996) that blindness is usually readily

apparent to the observer and often evokes feelings of pity and sympathy. Khurshid and Malik (2011) mentioned that visual impairment is a distressing physical condition with profound social and emotional implications. The loss of visual ability causes unfavourable consequences at both the individual and collective levels (Alves, Monteiro, Rabello, Gasparetto & Carvalho, 2009; Khurshid & Malik, 2011). Alves, et al (2009) indicated that blindness generates psychological, social, and economic problems as well as problems concerning quality of life, since it may lead to loss of self-esteem and autonomy.

Fatima, Bashir, Malik, Safder and Nayab (2014) indicated that visual impairment impacts negatively on access and inclusion of students in learning and so planning for access during course development instead of creating ad hoc accommodation strategies on enrolment of student with visual impairments is proactive. According to them, steps should be taken to ensure that a wide range of abilities and disabilities are considered following the universal design principles. One of the universal design principles is recognition of the ideal that access to education is one of the basic human rights (Harrison-Felix, 2001). It is therefore required that educational institutions are planned to integrate all students regardless of ability or disability so that every student will have equal opportunity to enhance their educational and career development.

Opini (2012) in her study about barriers to participation of women students with disabilities in university education in Kenya found that the universities had failed to make the university accessible to the disabled students because of deteriorated transport services, accommodation challenges, and inaccessibility to buildings in the universities. She found five cardinal areas that limited the participation of the disabled in higher education; these

were poverty, sexual abuse and harassment, discrimination, lack of sufficient learning resources, and a constraining physical environment. Getzel and Thoma (2008) stated that adjusting to a college environment presents challenges for all students; however, for students with disabilities, the responsibility of managing their accommodations along with their academic course work presents a set of challenges unique to these students.

Saksena and Sharma (2015) indicated that higher educational institutions equip students with the knowledge and skills needed for their future working lives. However they indicated that a challenge for most higher education institutions is to provide equal access to students with disabilities while maintaining university standards. When providing access and participation of students with disabilities in higher education, two broad sets of challenges emerge; these are: ensuring ease of physical access by improving physical/architectural infrastructure, and eliminating attitudinal/behavioural barriers to accessing education (Saksena & Sharma, 2015). Lavian (2014) stated that students with disabilities constantly face complex challenges and experience more tension and anxiety than their fellow students. Paul (2000) noted that students with disabilities face both physical and attitudinal barriers within their college or university environments. Meeting any one of these sets of challenges will not suffice in achieving integration of students with disabilities in higher education. Both challenges must be dealt with so that the individuals with disability can realise their potentials in higher institutions.

In reviewing literature, six main themes seem domineering concerning the challenges confronting students with disabilities in higher education and these themes will be the focus of discussion in this study. These themes are:

physical/environmental challenges, attitudinal challenges, challenges with institutional policy, challenges with assistive devices and technology, academic challenges and financial challenges. These are discussed below.

Physical/Environmental Challenges

Physical facilities such as halls of residence, faculty and departmental buildings, lecture halls and road networks must be accessible to the visually impaired in tertiary institutions. The campus facilities, conceptualized as the physical environment of the university, such as buildings, department offices, and the aura of the university's physical space, provides challenges to students who are blind and visually impaired (Scott, 2009). The cause of oppression usually exists in the social or constructed environment and not in the body; every inaccessible building is a closet representing the oppression of people with disabilities by able-bodied society (Siebers, 2004).

The visually impaired like other disability conditions face unique challenges in terms of physical facilities at all levels of their education. Gilson and Dymond (2012) indicated that environmental barriers often posed challenges for students with disabilities. Dakwa (2009) found out that children who were blind faced mobility and orientation problems; they experienced difficulties in moving around, and understanding and locating their environments. Mutele and Odeku (2014) noted that one of the key issues in making higher education accessible is how to ensure that the visually impaired are able to navigate spaces like their able counterpart with little or no barriers. They indicated that making infrastructural amenities more accessible and user friendly to meet the standard of the visually impaired people in the society and

wherever they might be become very important considering that the visually impaired students also enjoy the same right as others do.

Mutele and Odeku (2014) indicated that there is the need to set the acceptable international standards for amenities in any built environment, including universities that will conform to, and meet the needs of people with disability thereby fostering smooth movements and accessibility of any structure or area. They argued that while some universities, because of their vantage positions, have incorporated most of the international standards into the structures majority of the historically built universities have not. This is also the case in UCC where the incorporation of access to buildings into architectural designs for students with disability has been very recent. Kasiram and Subrayen (2013) indicated that structural inaccessibility, such as the absence of voice recorders in lifts and no lifts in some buildings added to the academic exclusion that was experienced by students with visual impairment.

Gondo and Gondo (2013) found out in their study that students with disabilities expected to have easy access to their tutors' offices and lecture rooms; however, these were inaccessible since some offices were upstairs. Brewster (2014) indicated that of relevance mainly for students with physical disabilities, poor lighting can affect students with physical and sensory limitations. This means that for individuals with disability to achieve their best out of higher education, there is the need to make these institutions a disability-friendly built environment. That is lecture halls, halls of residence, lecturers offices and departmental buildings as well as institutional libraries must be built such that they will ease navigation on campus for the visually impaired.

Attitudes of Lecturers and Colleague Students

The challenges that confront the visually impaired students in higher institutions are multifaceted. Connelly (1985) indicated that the greatest obstacle in educating the child who is blind attitudinal. He further noted that society shows lack of acceptance of blindness and has limited expectations for what people who are blind can do. Attitudinal barriers are not only faced by students with visual impairments, but generally by students with disabilities. In support, Jameel (2011) noted that attitudinal barriers are found to be the major obstacle when it comes to inclusion of students with disabilities in educational institutions. Gilson and Dymond (2012) have noted that the reaction of people without disabilities to those with disabilities plays a role in the stress level experienced by students with disabilities. Saksena, and Sharma (2015) found out that attitudinal barriers posed by the insensitive behaviour of students and staff members in colleges towards students with disabilities are more detrimental than physical barriers to access. They further noted that students with disabilities routinely encounter attitudinal barriers based on negative perceptions and stereotypes about people with disabilities. Dada and Eni-Oluranda (2014) have indicated that the attitudes of the other students and teachers are generally unfriendly and bad towards persons with special needs. Negative attitude is influenced by the treatment of individuals with disabilities as the 'other' because of their disability among non-disabled peers (Scott, 2009).

UNESCO (1997) found attitudes towards the disabled as one of the major challenges confronting the disabled in tertiary institutions. This reflects the attitudes of both lecturers and students. Saksena and Sharma (2015)

indicated that within the college, lack of information pertaining to myths and stereotypes about students with disability can result in negative attitude and insensitive behaviour on the part of some faculty, staff and students towards students with disability, which can make it even more difficult for such students to access educational services equally. UNESCO reiterated that attitudes, in general, among students and lecturers make it difficult to accommodate disabled students in the academic world. It was reported that the attitudinal challenges among colleague students and lecturers were seen in terms of students refusing to share a room with a student with disability, and lecturers refusing to change their teaching practices to accommodate students with disability (UNESCO, 1997).

Naami and Hayashi (2012) found out that university students in Ghana were ambivalent about characteristics of persons with disabilities and feel uncomfortable interacting with them while a substantive minority holds strong prejudices against persons with disabilities. Students with disability were described as slower in moving and studying which was considered a problem, and their unpreparedness for independent living. This may be due partly to the perception of the non-disabled students about the disabled students. That is the disabled students will depend on them for assistance such as running errands for them and having to do for the disabled what they cannot do for themselves because of their disability. This attitude of students towards the disabled presents both academic and social challenges to students with disability in higher education.

Mpofu (2003) indicated that learners with physical disabilities have limited opportunities to interact with their able-bodied classmates, which could

result in lower social acceptance. Gilson and Dymond (2012) also indicated that an important component of university life for many students is living in residence halls. Improving social-emotional competences not only has a positive impact on interpersonal skills and the quality of interactions learners establish, but also on their academic achievement (Noel, Aviles, Anderson & Davila, 2006). Human (2010) noted that it is through interaction with others that humans learn and make sense of their world. He argued that for learners with visual impairment, relations with others are crucial to overcome some of the visual access limits they experience and to help them make associations and develop their understanding of the world.

According to Myers and Bastian (2010), faculty and administrators' lack of knowledge, false assumptions, and fear of the unknown may lead to an inequitable educational experience for students with visual disabilities. Brewster (2014) found that attitudes and understanding on the part of staff and other students were not always favourable. According to him it is possible that even when practical barriers to full participation are removed, there remain attitudinal or cultural barriers to which students are sensitive. Rao (2004) stated that, attitudinal barriers are recognised widely as an impediment to success of people with disabilities. Unfortunately, this topic happens to be one of the least researched variables in studies done with faculties and students with disabilities in higher education (Fonosch & Schwab, 1981).

Opini (2012) found out that disabled students were discriminated against in group formation in the classroom. Non-disabled students formed groups with their peers who were non-disabled leaving the disabled in one group. It was indicated that the non-disabled mates claimed that they will be

going to the library alone to look for the relevant books and there is not much help the disabled students can provide and thus they would not accommodate them in their groups. Opini said that the students without disabilities express intolerance and tendency to look down upon students with disabilities thinking that the latter are incapable of academic success. It can therefore be inferred that attitudes of lecturers and students as well as the attitude of the entire tertiary institution systems are not positive towards persons with disabilities which adversely affect the academic and social integration of students with disability in higher institutions.

Institutional Policies

One of the crucial factors to consider regarding disability and higher education is institutional policies. In most universities, policies to ensure the accessibility of the university to individuals with disabilities are stated in principle; however, their practicality remains a mirage. Persons with disability deserve special supports in education, in both, policy and practice (Tinklin, Riddell & Wilson, 2004). Leibs (1999) indicated that too often in special education, teachers, administrators, and even state education department personnel procure materials for students, without ever training the students to cultivate their own relationships with institutions. UNESCO (2009) found that in some countries young people with disabilities are not allowed to study at universities. Where disabled students are accepted little effort is made to create awareness of their possible needs amongst academic staff and it is unusual to find a formal system of support. Students have to rely on their peers for assistance. The environment and the teaching and learning procedures may not be accessible; but there is a lot to do in educational institutions for disabled

students in terms of resources and capacity building rather than sympathetic feelings and statements (Bano, Shah & Masud, 2013; Shah, 2007).

Kasiram and Subrayen (2013) indicated that clearly, university policy and planning structures need to accommodate students with special needs, not only by changing their policies but also by providing support where such policies exist to ensure that they are implemented. Mushome and Monobe (2013) indicated that the university should prepare itself fully to accommodate any students with special educational needs. Preparations must be both physical (buildings and materials) and human (staff must be trained to deal with these students). They stated that despite the fact that the university has been registering students who are visually impaired yearly, there is no indication that staff members are being trained to handle these students. Their study found that lecturers found teaching visually impaired students a problem, because they were never trained to teach visually impaired students and that the institution should employ a permanent specialist in teaching such students and create a resource centre for them. It is important to have lecturers who have acquired higher qualification in special education in order to help visually impaired students in general education classroom. Without experts in education modifications, the learning for visually impaired students could be difficult. A number of institutions in developed countries have flexible regulation systems; they allow their lecturers to provide notes to their students on computer disk for the blind and the partially sighted students and those whose lectures are not word-processed may agree to make their notes available (Students Support Service, 2002, p. 1).

Chataika (2007) found that institutional barriers that incorporate physical access, inappropriate application and admission procedures, inappropriate teaching methods, inadequate support services and resources, and most importantly absence of legislation and political will, hampered participation of disabled students in higher education in Zimbabwe. He espoused that institutions need to consider providing disability training as part of induction and development programmes for all staff, including part-time and contract staff. Konur (2002) insisted that institutions should consider ensuring that training programmes are flexible enough to allow specific training on working with students with particular impairments. He indicated that institutions need to make the necessary arrangements for staff to attend such training programmes by providing designated time for staff development. In UCC there is a resource centre (RCAMAT) for the students with visual impairment. The issue is, are there enough support staff and effective educators for such students? This is what this study sets out to find.

Challenges with Technology and Assistive Devices

Technology has become an integral part of education in contemporary societies. Technology has made it possible for individuals with disability to participate in education in a much easier way than they could hitherto. In the face of the technological advancement and proliferation of information and communication technology which have become bedrock of contemporary education, the education of individuals with disabilities cannot achieve much success without adequate provision of assistive devices. Students expect to have access to modern technology and adequate resources to help them pursue their course (Gondo & Gondo, 2013). Technology is a powerful tool with

enormous potential for paving high-speed highways from out-dated educational systems to systems capable of providing learning opportunities for all, to better serve the needs of 21st century work, communications, learning, and life (Thomas, 2003).

If technology and assistive devices are inadequate for individuals with visual impairments, then we can envisage compounded challenges which will adversely affect their academic performance in institutions of higher learning. Dakwa (2011) pointed out that some institutions and resource units had no proper equipment for use by children with disabilities. For the students with visual impairments, this included writing equipment like Perkins Braillers, writing frames, braille books, mobility appliances for students who are blind as well as for the student with low vision. These appliances would equip the student with visual impairment to be functional within an inclusive educational environment.

Brewster (2014) has indicated that various services and support mechanisms are in place within the university which aim to ensure that disabled students are not placed at a disadvantage; he noted that the students' experiences may still not be entirely positive. He argued that reasonable adjustments are being made in a reactive rather than anticipatory manner, and requests for adjustments being viewed unsympathetically. Thus institutions must be proactive instead of reactive in meeting the equipment needs of students with disabilities in educational facilities so that they will not be disadvantaged in their career pursuit. Gilson and Dymond (2012) have stated that given that people with disabilities can often become more independent and

productive through the use of assistive technology, barriers to its procurement can impact postsecondary education success rates.

The education of individuals with disability at all levels especially at the tertiary level can be much easier if adequate and appropriate assistive devices are provided for them. However, the lack or inadequacy of technological devices may compound the challenges of the visually impaired in institutions of higher learning because of lack of access to visual information (Human, 2010).

Academic Challenges

In tertiary institutions the content of the curriculum for the visually impaired students is not different from that of their counterparts without visual impairment. Since the loss of vision restricts them in obtaining adequate and accurate information from the teaching and learning sessions, there is the need to make the content as practical as possible for the visually impaired to also acquire the information with ease (Heward, 1996). This will require the use of multi-sensory approach in teaching and learning as well as the provision of assistive devices through which the visually impaired students can access the content of the course or courses they study in institutions of higher learning.

It has been found that students with disability tend to encounter challenges leading to lower outcomes in terms of final degree classification even if they start out with comparable qualifications to other students in the university (Riddell, Tinklin & Wilson, 2002). This significant difference in academic achievement does not stem from difference in intellectual capacities between individuals with and without disabilities; rather it has to do with the accessibility of academic institutions for the disabled individuals.

Sachs and Schreuer (2011) also stated clearly that accessibility rather than ability is the explanation for academic differences between students with and without disabilities. They indicated that the former face difficulties in meeting the higher education requirements embedded in Western culture, which values time and imposes high speed on all people as a measure of productivity and excellence (Lerner, Amick, Lee, Rooney, Rogers, Chang, & Berndt, 2003). Some studies (Gilson, Dymond, Chadsey, & Hsu, 2007; Holloway, 2001) have suggested that students with visual impairments worry that they will not have access to accessible formats of their textbooks in time to keep up with reading assignments.

Harpur and Loudoun (2011) posited that one of the biggest challenges confronting university students with disabilities, such as blindness, is accessing the written word. Connelly (1985) stated that the biggest problem in adapting the on-going school programme for the visually impaired students is the need to get information through means other than visual. In UCC the books in the library are in print format. This means that they are inaccessible to students with visual impairment. The issue is does this pose a challenge for students with visual impairment in the University? This study will elucidate the experiences of these students in the University.

Goode (2007) indicated that disabled students' own perceptions of their teaching and learning experience are clearly important but often neglected. Dakwa (2009) found that teachers ignored the needs of children with visual impairment when they continually used the lecture methods and ignored the presence of students with visual impairments. One can therefore envisage serious challenges for the visually impaired students who can neither read the

power point presentations used by some lecturers in UCC nor the written concepts or graphical representations on the board during lectures. It means that these students have to rely mostly on their sense of hearing to be able to benefit from the lecture interaction.

Human (2010) noted that blind learners learn mainly through their sense of hearing in a group situation. Whereas their sighted peers benefit both visually and auditory and can even take notes as well, the visually impaired are handicapped in this sense unless they have devices that can also record the lecture. At the end of the day, the visually impaired individuals are required to take the same exams as their sighted peers. Human again observed that learners with visual impairment experience challenges in school such as having to compete at the same level as other learners, despite lacking access to visual information to enable them to compare their own performance to that of their peers. No wonder they end up with low final degree classification as found by Riddell, Tinklin and Wilson (2002).

Alves, et al (2009) intimated that students with low vision may have difficulties with reading and writing activities, even when they use optical aids (that magnify the image) and non-optical resources (material adaptation and changes in the environment). Academic challenges become more paramount if lecturers lack knowledge about disability and do not have the expertise in handling such individuals. Studies have shown that some faculty members have never been adequately trained in providing accommodations to students with disabilities (Cawthon & Cole, 2010; Finn, 1997) or have not been exposed to students with disabilities (Leyser, Vogel, Wyland, & Brulle, 1998). The result is that faculty members become unaware of how to adapt their teaching

to suit the needs of students with a variety of learning styles (Stodden, Roberts, Picklesimer, Jackson, & Chang, 2006). Dakwa (2011) found out that individuals with low vision and those who were blind lacked expert assistance from the teachers in the regular classes.

It can therefore, be realised that the academic challenges of the visually impaired in tertiary institution can be diverse such as lack of expert assistance from lecturers, lack of course materials in accessible formats, and lack of devices to reduce the impact of their impairment. Any of these factors or a combination of them can hinder students' academic development leading to low final degree classification for the visually impaired in tertiary institutions.

Financial Challenges

The Youth Advisory Committee of the National Council on Disability (2003) identified financial aid as a barrier to postsecondary studies for students with disabilities. The committee concluded that disabilities may prevent students from accessing financial aid for undergraduate and graduate school because of insufficient course loads and extended number of semesters before the completion of a degree, as well as difficulty with test taking and scholarship essay writing. Jameel (2011) stated that resources become important for the proper functioning therefore identification of financing policies and agencies should receive proper impetus. He indicated that students with disabilities in several colleges are exempted from college fees if they do not get financial assistance from anywhere.

Research shows that women and children with disabilities experience higher levels of poverty mainly because of structural inequalities in resource distribution (Barnes & Mercer, 2003). They consequently found that girls and

women with disabilities have limited access to education, especially in low income countries. Their study explained that poverty prevented most female students with disabilities from participating in higher education. Many of the women with disabilities in the university came from low socio-economic backgrounds and were self-sponsored students, meaning that they paid higher tuition fee, compared to students admitted directly through the universities' joint admissions' board (JAB students).

Although they got government loans, the money was not enough for their fee, accommodations, learning materials, and general upkeep. Poor students with disabilities face significant challenges meeting high tuition costs in Kenyan universities. These high costs are an additional concern to mature students with disabilities who have families to support. In Kenya, high school education is not free, students have to pay tuition and accommodation fees (Opini, 2012). Opini explained that without proper financial supports, many students with disabilities will not be able to attend university, even when they get admission.

Factors that Motivate Students with Visual Impairments to Complete their Programme

Motivation is one of the critical factors that ensure student success in academia. It determines the amount of effort a student puts in his studies which in turn influences the level of success or failure of that student. Motivation is probably the most important factor that educators can target in order to improve learning (Olson, 1997). Williams and Williams (2011) mentioned that student motivation is an essential element that is necessary for quality education. They argued that, very little if any learning can occur unless

students are motivated on a consistent basis. Like all other students the individual with disability require motivation to succeed. It therefore behoves on me to explore the factors that motivate students with visual impairment to succeed in their academic fraternity. A critical look at the concept of motivation will set the pace for this exploration.

The Concept of Motivation

Weiten (2006) defined motivation as a goal-directed behaviour. Nevid (2003) also explained motivation as the factors that activate, direct, and sustain goal-directed behaviour. Motivation can be conceptualised as the factors that lead to initiation, persistence and direction of effort towards a goal. That is motivation refers to the factors that makes a person persist on an activity towards the attainment of a desired goal. It must be borne in mind that sometimes the motivation to do something stems from the interest and passion we have for it and not due to an expected outcome of performing that act. On other occasions the motivation to perform an act largely depends on the expected outcome; the praise and reward from others. These two instances apparently distinguishes two types of motivation; intrinsic and extrinsic motivation.

Intrinsic motivators come from within ourselves: we do something because we enjoy doing it; extrinsic motivators come from outside of us: we do something because someone rewards us or threatens us (Sternberg, 1995). Sternberg argued that we can act on the basis of intrinsic reasons, extrinsic reasons, or combination of the two. Nevid (2003) indicated that intrinsic and extrinsic motivations underlie our need for achievement. He indicated that extrinsic motivation reflects our desire for external rewards such as money or

the respect of one's peers or family while intrinsic motivation reflects a desire for internal gratification, such as the self-satisfaction or pleasure derived from accomplishing a particular task. Thus extrinsic motivation is a means to an end while intrinsic motivation is an end in itself. It can therefore be inferred that the desire to achieve high academic standing which has a direct bearing on the individual's employment and financial status is underplayed by either one or a combination of extrinsic and intrinsic factors. This is why this study looks at such factors in the context of students with visual impairment in higher education as UNESCO (1997) found out that disabled students were motivated and independent students.

Sternberg (1995) explaining Deci and colleagues self-determination theory indicated that humans need to feel competent, related, and autonomous. He explained that intrinsically motivated activities satisfy our need for competence and autonomy. In contrast, many extrinsically motivated activities can undermine our sense of autonomy because we attribute the control of our behaviour to sources outside ourselves rather than to internal ones.

Even though, not much has been done in the area of motivating factors that ensure the retention and success of disabled students in higher education, inferences from the literature suggest that these factors can be classified as both intrinsic and extrinsic. The intrinsic factors include students' interest and desires, beliefs, change of environment and expectations. The extrinsic factors include financial assistance, social support networks, accessible campus environments (structure, academic etc.), assistive technology and devices, and family support. Williams and Williams (2011) indicated that individuals who are motivated intrinsically tend to develop high regard for learning course

information without the use of external rewards or reinforcement. On the other hand, individuals who are motivated extrinsically rely solely on rewards and desirable results for their motivation. Students who are motivated externally are at a greater risk of performing lower academically than intrinsically motivated students. It is interesting to note that several studies have reported that non-traditional students report higher levels of intrinsic motivation than traditional students (Dean & Dagostino, 2007; Daniels, 2010; Bye, Pushkar & Conway, 2007; Afzal, Ali, Khan & Hamid, 2010).

Intrinsic Motivation

Intrinsic motivation among students with disabilities in higher education stems from the student's interest, belief, desires and aspirations. Some studies highlight these intrinsic motivating factors. Opini (2012) found out that in spite of the challenges female students with disabilities encountered in higher education, they persisted in their studies. She reported that many of her study participants believed that disability is not inability. Such a positive attitude and resilience is worth emulating especially by those with disabilities thinking of furthering their education. This belief is a motivating factor that ensures persistence and academic success (Opini, 2012). Chataika (2010) also found among his study participants that self-determination or self-belief was seen as a vehicle for success.

A study conducted by Almog (2011) found that higher education is viewed as a way to upgrade the vocational skills of the visually impaired. Therefore participants of the study were more committed to academic success. This view is reiterated by Klinkosz, Sekowski and Brambring (2006) who suggested that identifying studying in university as successful rehabilitation

helps students with visual impairment to be able to study and pass their examinations. Thus the students' expectations of higher education motivated them in pursuance of higher education in spite of the plethora challenges they encountered. Interest in gaining higher education for personal development is one of the internal forces that mark a positive influence on students' achievement and persistence (Almog, 2011; Anderson, 1985). The flair for schooling in a new geographical location to pursue higher education brought enlightenment and added knowledge (Scott, 2009). He found that several students mentioned that moving to a new region to pursue higher education brought them enlightenment and added knowledge. One of his study participants indicated that her survival is mostly attributed to her desire to succeed despite discriminatory experiences. Thus she was intrinsically motivated.

Extrinsic Motivation

Extrinsic motivators are the expected outcome of higher education. They are factors outside the individual that initiates and sustains persistence of effort towards a goal. In this context extrinsic motivators may include grades, praise from peers and family, and reward of acquiring higher education certificate. The prestige associated with higher education makes it a much desirable level of education for most youths in the society (Dada & Eni-Olorunda, 2014). Education in general and post-secondary education in particular, is a predictor of gainful employment in meaningful occupations, opening opportunities for career development, hence for quality of life (Dutta, et al, 2009; Getzel, Stodden, & Brief, 2001). These are expected outcomes and they serve as motivation factors for students in general and students with

disabilities in particular to commit to academic success in higher education. It has been suggested that the most effective extrinsic motivation is the probability of finding a job (Celikoz, 2010).

One critical factor that motivated students with visual impairments as found by Almog (2011), in his study was family support. He indicated that family support can be divided into two forms, moral support and practical support. Moral support relates to the values that the family holds toward higher education; practical support includes various techniques by which family members act in order to help their relative to persist in studying: financial support, or technical support in fulfilling learning tasks such as help in reading learning materials, summarizing them and writing papers.

It can be inferred from the literature that some students with disabilities are motivated by intrinsic factors while others are motivated by extrinsic factors. This study therefore seeks to discover the factors motivating the visually impaired in UCC towards the successful completion of their various programmes of study.

Ways Students with Visual Impairments can be Supported

Lavian (2014) stated that in recent years, the growing number of students with special needs enrolled in higher education institutions has uncovered the need to introduce changes in the system in order to provide suitable support for these students. Getzel and Thoma (2008) noted that there was a need to increase research efforts on the experiences of students with disabilities attending post-secondary programmes to identify effective strategies that enable them to remain in these settings. Even though higher education does not meet the requirements on inclusion of people with disability

into the community, the higher the level of education of people with disabilities, the better the chances for them to integrate into society in general, and into employment in particular, so that they might sustain themselves financially with dignity (Laron report, 2005).

Ganapathi (2014) noted that the majority of people with disability have the reciprocity of poverty producing disability, and disability resulting in poverty and hence there is a need to increase higher education for people with disability in order to bridge the economic gap between individuals with and without disabilities. It is therefore incumbent on higher educational institutions to make the academic success of the students with disability a priority so that they can succeed and be gainfully employed. This can go a long way to eliminate their disability-driven poverty. This calls for adequate support systems in the institutions of higher learning. Yungungu and Ogolla (2014) noted that given the tools and support to receive education and gain useful skills, the visually impaired persons can live a fully realized life and become very productive members of society.

Steyl (2010) indicated that although the aim of universities accommodating disabled students is more or less the same; to integrate students who meet the academic requirements, it differs from each other with regard to the approach to disability and equal opportunities. Saksena and Sharma (2015) indicated that students with disability present a challenge to the higher education system, which if taken up, could represent a significant improvement in practice for not just the students with disability, but for all students in general.

Changes that are made in the higher education system whether structurally, attitudinally, or programmatically has rippling effects as they benefit the entire system in the long run. Shepherd (2001) indicated that a flexible approach to the needs of blind and visually impaired students can yield positive dividends. He indicated that such an approach is also a characteristic feature of an effective curriculum for all students, and that it moves higher education back from being an exercise in mass delivery towards being an exercise in personalised delivery within a broad set of agreed learning outcomes.

UNECO (2009) indicated that Ministries of Education should develop guidelines for secondary and tertiary schools and universities on implementation of education for students with disabilities that take into account the specific arrangements and accommodation needed to support these students each level of the educational system. It was further suggested that Ministries of Education or other appropriate ministries should take measures to ensure the readiness of secondary and tertiary educational facilities to receive students with disabilities and ensure that they receive an appropriate and accessible education.

Mutele and Odeku (2014) indicated that students with visual impairments remain one of the main groups being widely excluded and recognised as one of the least visible and most potent factors in educational marginalisation. In order for the needs of visually impaired students to be realised, universities need to provide support services. Brewster (2014) reported a range of support services needed by university students with disabilities; counselling or medical analysis, extension of time in examinations,

study mentors, orientation support, library support, research assistance, extended loans on library books, and greater understanding from lecturers when a student is struggling to participate in group work.

UNESCO (2009) suggested measures that should be taken to redress the challenges confronting the visually impaired in tertiary institutions including; teacher training and orientation, classroom support where needed, accessible textbooks, teaching and learning materials, and physical accessibility throughout the campus. It was further recommended that organizations of persons with disabilities, family support groups, NGOs and the relevant government organization concerned should play an active advocacy role to promote increase in the numbers of children and youth with disabilities gaining access to all levels of education with appropriate support. Particular emphasis should be focused on secondary and tertiary education, including vocational training (UNESCO, 2009).

Brewster (2014) intimated that the mere presence of disabled students within a higher education environment cannot be regarded as an adequate indicator of equality; outcome is also important. Similarly, Saksena and Sharma (2015) noted that the physical presence of students with disability in colleges does not automatically ensure their participation. They espoused that a student's academic performance and participation depends on several college level factors such as college structure, composition of academic and non-academic staff and other determinants of general academic environment, which sets the parameters of a student's learning experience. Lavian (2014) indicated that the increase in the number of students with special needs in higher

education institutions brought the need for systemic changes so as to give these students the proper support in the course of their academic studies.

Dakwa (2009) discussed factors necessary for successful integration of individuals with visual impairments into educational facilities; an accepting and flexible general education classroom teacher, peer acceptance and interaction, available support personnel and adequate supplies of equipment for both the child who is blind and one with low vision. In view of the fact that a lot of visually impaired people are now seeking and gaining admissions to the universities, there is the need to upgrade the infrastructural amenities in the universities to the standard stipulated in international guidelines in order to cater for all students' needs, especially the disabled (Arnold, Hammond & Clayton, 2009).

Among the supporting factors, Ganapathi (2014) indicated the importance of faculty's attitudes toward students with disabilities, their awareness of these students' needs, and their knowledge of the reasonable accommodations available. These attitudes influence success or failure of students with disabilities, and affect inclusion in higher education (Rao, 2004). Negative attitudes of faculty and administrative staff may prevent students, especially students with invisible disabilities, from disclosing their disabilities and from requesting accommodations they are entitled to (Jung, 2003; Johnson, 2006). It has been found that faculty members understood the needs of students with disabilities, however only a few were willing to change the material covered in their courses to suit these students' learning needs and hence the need for faculty members to learn more about disabilities (Barazandeh, 2005; Kraska, 2003). This will give the visually impaired students the opportunity to

enjoy the right to education and enhance their career pursuit. Some specific areas that students with disability require support are discussed below.

Financial Aid

Brewster (2014) indicated that there is evidence to suggest that students who are in receipt of Disability Student's Allowance (DSA) do better on their university courses than those who are not. UNESCO (2009) recommended that governments and universities should provide scholarship for students with disabilities to attend the universities. It was suggested further that the universities should provide a quota of places as a proactive measure until students with disabilities are more equitably represented at the university level. Fatima, et al (2014) indicated that scholarships should be awarded to deserving students with visual impairment. These assistances if provided for the students with visual impairment in tertiary institutions may motivate them to excel academically.

Technology and Assistive Devices

Dakwa (2009) indicated that because disability imposes serious restrictions to an individual's ability to move about freely and confidently, assistive technology has become a vital part to enable the child with visual impairment to move freely in order to access his/her environment and learning materials. Alves, Monteiro, Rabello, Gasparetto, and Carvalho (2009) indicated that assistive technology resources are increasingly becoming a concrete means of access to information, communication, and social inclusion. They indicated that students with low vision can benefit from the combined use of these resources with information technology, such as screen enlargers (systems that magnify the characters on a computer) and speech synthesizers (specific

adaptations with voice output, which convert screen content to speech). Information technology allows individuals with visual impairment to overcome a major part of the difficulties in daily life and offers them independence and autonomy concerning information management and access to communication, just like their peers with normal vision (Alves et al, 2009).

Among the lots of assistive devices, Alves et al (2009) mentioned that many voice synthesizers and screen readers are available for purchase from companies or nongovernmental organizations or are available for free use on the internet. These programmes allow access to internet websites. Alves et al expounded that if students with disabilities are to realise their potentials in educational institutions, the teacher should be able to competently manage assistive technology resources, which can be considered a condition for an efficient pedagogical relationship. This means that it is not enough to provide assistive devices and technology rather lecturers and support staff should be trained on how to assist the student with disability on how to use these resources.

UNESCO (2009) highlighted that education must be accessible, which means appropriate communication modes and access to the necessary technology, such as braille and computers for children with visual impairment. Dell, Newton and Petroff (2008) describe assistive technology as any item, piece of equipment, product system, whether acquired commercially off the shelf, modified or customized, that is used to increase, maintain and improve functional capabilities of individuals with disability. These devices and modifications help to overcome or remove the disability; prosthesis, wheelchair, curb-cut, standing frame, text telephone, accessible keyboard,

braille machine and braille slate and stylus, Taylor frame, mobility cane, magnetic chess board speech recognition computer software and other software like voice fingers, the grid, smart box AT'S, freedom Scientific's JAWS, free and open source alternative (Gondo & Gondo, 2013).

Wong and Libby (2010) indicated that persons with visual impairments are no different and require the use of assistive technology to compensate for their vision loss. They argued that some of the high-tech assistive technology used by persons with visual impairments in today's technologically advanced world consist of both hardware and software products including screen readers, screen magnifiers, closed-circuit televisions, electronic magnifiers, scanners and optical character readers, portable and refreshable Braille displays, digital and electronic data, digital readers, and accessible cell phones.

Lucky and Achebe (2013) indicated that scientific and technological innovations have brought about various information communication devices that can convert print to speech for them to hear and also convert print to Braille for them to feel. Sachs and Schreuer (2011) specified that making computer workstations accessible to students with disabilities is of great importance, as assistive technology can help reduce and in some cases even eliminate the barriers they face in the promotion of equal opportunities in higher education and in employment (Dowrick, Anderson, Heyer & Acosta, 2005; Schreuer, Rimmerman & Sachs, 2006).

Dakwa (2009) indicated that people with visual impairments are gaining access to technology and assistive devices designed to minimize the negative effects of their disabilities. Some of the technological devices available to learners and adults with visual impairments include: braille

machines, talking watches, clocks, calculators as well as food scales (Kirk, Gallagher, Anastasiow, & Coleman 2006). The extent to which individuals have access to assistive devices and equipment to foster their learning depends largely on the extent to which these devices are available in their institutions of learning or the students own them privately. Kirk et al (2006) indicated that exciting technological advances open up a new world for people with severe visual disabilities. Accessing print material has always been difficult for students with visual impairments, but technology has definitely levelled the playing field (Heward, 2013). If these devices are adequately provided for the visually impaired in higher institutions, they will be able to achieve their best just like their sighted counterparts.

Fatima, et al (2014) stated that technological development can enable people with disabilities to improve their quality of life. They indicated that persons with disability can accomplish tasks that would be impossible to do without the computer such as writing a letter and communicating. Moreover, the digitalization of many public services such as education (school, university), banking, library, or even sending a letter allows people with disabilities to live in much the same way as those who are not disabled. Thus they can acquire an independent life and achieve social integration (Williamson, Wright, & Bow, 2001). Kurubacak and Yuzer (2004) posited that integrating novel technologies to increase educational productivity in education are paramount essential phenomena in effective learning. Fatima, et al (2014) stated that JAWS software should be installed in all computers of the university and at all study centres.

They argued that laptops with JAWS software should be provided to deserving students with visual impairment for taking lecture notes and doing all of their academic work independently. Scott (2009) stated that the availability and improvement of assistive technology can change environments to a significant degree, increasing the accommodations for students with blindness and visual impairments by adding to the number of options available to them. There are many wonderful assistive technology devices now available that ease access and increase productivity such as; improvements in voice recognition software, wireless technology and other mainstream technology developments in particular have a tremendous impact on accessibility and academic success for students with blindness and visual impairments (Scott, 2009).

Support from Colleague Sighted Students

Sighted peers can provide mobility support, social interaction and form study groups with the students with visual impairment to enhance their academic work among others. Therefore there is the need for cooperation of the sighted peers and the visually impaired in the university. UNESCO (1997) outlined several solutions that have been tried. One of such solutions is the use of co-studying method by universities, which is a disabled and non-disabled student study together. This approach is where students with sight have been voluntarily reading textbooks on tape for the visually impaired so that the visually impaired can have the textbooks in audio format. Sachs and Schreuer (2011) in their recommendation indicated social change in attitudes of students and faculty toward people with disabilities which is a prerequisite to social inclusion and equal opportunities for students with disabilities. They espoused

that concerning students' experience in its broad perspective, responsibility for social change devolves upon higher education institutions.

Opportunities to interact with others need to be embedded in everyday, whole-class activities and also need to be taken as and when they emerge (Roe, 2008). Jameel (2011) expounded that representation of students with disabilities in the university forums and student union will lead to empowerment and emancipation. Scott (2009) found that diversity awareness of their peers was the most important aspect of getting collegial support and building lifetime relationships among blind and visually impaired students. Effective sensitisation programmes will therefore do the magic in changing attitudes so that students without disabilities can offer support to those with disabilities as and when required. Gilson and Dymond (2012) stressed that training offered on disability topics for a wide audience at higher education institutions benefits everyone and is a vital component of addressing attitudinal barriers related to disability.

Support from the Institution and Government

Erkeh and Njoku (2014) indicated that several factors are linked to students' performance and success in educational settings. Students' success and ability to do well in academic endeavours are often linked to their family background, socio-economic status, the students' living environment and parenting styles (McGuigan & Hoy, 2006; Agbesha, 2012). However, recent findings have shown that irrespective of students' socio-economic background, parenting styles, or the living conditions of the students, they can improve in their academic endeavours if the school's atmosphere is conducive and the goal of the school geared towards academic excellence (Shahid, 2013). This implies

that the school's mission and goal can change the students' perception and greatly influence their commitment to their studies and ultimately lead to their success in academic endeavours. In effect, students' success and academic performance can be linked to the school's organizational goal and climate which is expected to ensure that students receive the best form of education and training in all aspects of life and perform optimally in their educational endeavours.

UNESCO (1997) stated that awareness campaigns should be used to improve attitudes at universities. It was found that some universities arranged staff training to develop teaching skills of lecturers and supervisors, provided disabled students with single rooms to facilitate mobility and other universities accommodated a disabled and a non-disabled student together so that assistance would be close, if needed. UNESCO (2009) indicated that governments and universities should provide assistive technologies and all necessary resources for students with disabilities who attend universities. Governments and universities should ensure that all aspects of the university are accessible to students with disabilities including physical access and access to all teaching modes and materials. Ganapathi (2014) indicated that if the government is able to provide education for physically handicapped people, then their employability will increase and this will lead to a more dignified life for persons with disabilities. This underscores the UNESCO (1994) statement that schools that accommodate the educational needs of individuals with disability are the most effective means of combating discriminatory attitudes, creating welcoming communities, building inclusive societies and achieving education for all.

UNESCO (2009) specified that legislation may need to be reviewed and repealed in some countries to allow young people with disabilities to attend university, or enter particular professions. Fatima, et al (2014) indicated that transport facility should be provided to all students with disabilities in general and to students with visual impairment in particular at higher education level. Opini (2012) pointed out that students with disabilities incur additional disability related expenses in their pursuit of higher education compared to non-disabled students. She suggested that the Ministry of Education should take into account these additional costs and consider providing additional funding to enable these students to meet their educational expenses with lesser strain.

Gilson and Dymond (2012) stated that the lack of academic courses on disability topics, few disability awareness events for students, and few advocacy efforts on the part of students with disabilities should be addressed on university campuses. Jameel (2011) therefore indicated the need for representation of students with disabilities in the university forums and student union which will lead to empowerment and emancipation. Similarly, Gilson and Dymond (2012) indicated that students with disabilities who learn how to advocate for their needs more effectively benefit academically. Thus students with disability must have adequate representation on all student unions and groupings so as to make their needs known and met. Strong disability advocacy groups on campuses can also help address this issue. This can happen if there is institutional and political will to do that. Gilson and Dymond (2012) stressed that training offered on disability topics for a wide audience at higher educational institutions benefits everyone and is a vital component of

addressing attitudinal barriers related to disability. Students without disabilities who sign up for courses on disability studies may be transformed into allies of fellow students with disabilities, they reiterated.

Sachs and Schreuer (2011) indicated that expectations of higher enrolment of students with disabilities have prompted academic institutes to introduce innovative programmes to meet these students' needs. Special programmes have been opened for students with visual impairments, students with learning disabilities, and students with psychiatric disabilities (Oved, 2007; Sasson, Greenshphon, Lachman & Bonny, 2003; Stodden, Roberts, Picklesimer, Jackson & Chang, 2006). Chambers, Sukai, and Bolton (2011) stated that faculty attitudes and behaviours toward students with disabilities significantly influence the overall educational experience and persistence behaviour of students with disabilities.

UNESCO (2009) indicated that universities should provide support and counselling for students with disabilities at universities. Barriers to tertiary education, particularly universities, need to be removed and a positive and proactive policy put in place to encourage students with disabilities to complete university and professional studies. Awareness of the needs and accommodations necessary to enable students with disabilities to access their studies effectively needs to be conducted with university personnel. Formal systems of support should be established with disability liaison officers on campus. Informal support networks should be encouraged. These are often formed spontaneously as non-disabled students assist their disabled peers to access the library and other sources of information and reference.

Teaching Support

UNESCO (2009) stated that all lecturers should receive awareness training on how to adapt their teaching appropriately. Fatima, et al (2014) call on universities to establish disability friendly digital library accessible to all special need students especially visually impaired ones. They indicated that teachers and resource persons responsible for preparing and providing the content and learning activities must be well trained in accessibility issues in order to ensure that they are fully aware of the difficulties that visually impaired students face. The organizations working in audio recording of books may be contacted to purchase recorded material which may be provided to all study centres. Human (2010) indicated that the use of pre-recorded study materials is a good way for learners with visual impairment to learn. He mentioned that Braille is still the basic and unique reading and written medium of communication and learning for learners who are visually impaired or blind. There is therefore the need for braille books and equipment for the visually impaired to enhance their academic success.

Chapter Summary

The evidences from literature provided above indicate that the visually impaired encounter lots of challenges in their academic and professional development in institutions of higher learning. Such challenges included physical/environmental, attitudinal, academic, technology and assistive devices, financial and institutional policies.

The literature also revealed that several factors such as the students own interests and expectations, belief and confidence they have in themselves, support from family and the provision of assistive devices motivated students

with disabilities in higher education. It was found from the literature that several challenges confront the students with visual impairment in higher education, however, the belief they have in their capacity to succeed was a motivating factor and predictor of their academic success as illustrated in the conceptual framework of the study.

Finally, it was found out from the literature that for the visually impaired to be supported in their pursuit of higher education, there is the need for institutional and government support, support from lecturers and colleague students, adequate provision of technology and assistive devices and financial aid. If these supports are provided adequately, the students with visual impairment will face fewer difficulties in their career pursuit in higher institutions.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter presents the methodology the study. It discusses the research design, population, sample size, sampling techniques, research instrument, data collection procedure and data analysis.

Research Design

Research design is a general plan for implementing research strategy (Gravetter & Forzano, 2009). Similarly, Gyimah and Duodu (2006) stated that research design is described as the overall plan for collecting data in order to answer the research questions. This research was a qualitative research with case study as its main design.

Glesne (1999) indicated that qualitative research is a method that describes events and occurrences without the use of numbers and investigates the poorly understood territories of human interactions. Similarly, Denzin and Lincoln (1994) indicated that qualitative research is a multi-method focus, "involving an interpretive, naturalistic approach to its subject matter" (p. 2). Qualitative researchers seek to describe and understand the processes that create the patterns of human terrain and study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them (Glesne, 1999; Denzin & Lincoln, 1994). This study investigated the challenges and motivation of the students with visual impairment in UCC as well as how they can be supported to achieve their best in the University. Studying these phenomena in their natural settings helped the

researcher to discover the actual experiences of these students in the University.

This research aimed at generating new knowledge and understanding of the challenges experienced by the students with visual impairment as well as the factors that motivate them in their career pursuit and hence the use of qualitative research. Sharma (2008) indicated that under certain circumstances and particular cases where the emphasis of our study is the depth-understanding of the problem and the need for generalization is not great, the use of qualitative methods is indicated. Almog (2011) mentioned that qualitative methods are frequently used while researching the lived experience of people with disabilities because of their ability to examine the complexities of disability in social context. The qualitative nature of this study helped the researcher to discover the realities pertaining to the phenomena of study from the lived experiences of the research participants using a case study design.

Case study research is a form of qualitative research that is focused on providing detailed account of one or more cases. Gravetter and Forzano (2009) explained that case study design involves the in-depth study and detailed description of a single individual (or a very small group). Since this study focused on a detailed investigation of the students with visual impairment in UCC, the use of case study as a research design was appropriate. This is because these students form a small percentage of the entire student population in UCC. The study employed interview which is a qualitative research instrument for data collection.

Population

The population of this study was the students with visual impairments in UCC. This University is one of the traditional universities that provide tertiary education for the visually impaired in Ghana. Studying in UCC I have observed a number of students with visual impairments on campus and hence saw the need to choose the students with visual impairments in this University as the population for the study. I found from the Resource Centre for Alternative Media and Assistive Technology (RCAMAT) that the total number of students with visual impairment in UCC at the time of the study was 30 comprising 19 males and 11 females.

Sample and Sampling Techniques

The sample for this study was 30 students with visual impairments comprising 19 males and 11 females. Since the number of students with visual impairments was not large, I used the census approach where all the population forms part of the study. However, some of the students refused to participate in the study and those who voluntarily participated were 20, comprising 16 males and 4 females.

Research Instrument

The instrument for this study was a semi-structured interview schedule (see Appendix A). Interview is more commonly used in qualitative research because it permits open-ended exploration of topics and elicits responses that convey unique meaning of the respondents' words (Gall, Borg, & Gall, 1996).

The semi-structured interview was made up of four parts. Part one elicited demographic information about the study participants. Part two consisted of questions 1 to 6 and it elicited information on challenges

confronting the students with visual impairment in UCC. Part three comprised questions 7 and 8 and it elicited information on factors that motivate the students with visual impairment and the fourth part made of question 9 to 15 elicited information on how the students with visual impairment can be supported in UCC. Apart from the demographic data, the interview guide consisted of 15 questions.

Whitley (1996) explained that semi-structured interviews can be useful in exploratory research as a means of identifying hypotheses and of determining how members of a proposed study population react to questions on various topics and to different ways of phrasing questions. In this approach the researcher asks open-ended questions for the interviewee to explore his or her views about the topic of study. This approach was employed in this study because of its flexibility as questions could be asked in any order by the interviewer. Also, the question wording was changed by the interviewer when it was deemed appropriate. This enabled the researcher to probe into areas in which respondents were not able to expand ideas and also gave participants the freedom to express their ideas about a variety of issues relating to the topic of study. The use of the interview for the research helped to obtain accurate in-depth information from the study participants.

Validity and Reliability of Research Instrument

I subjected the interview schedule to expert approval in order to ensure content and face validity (Gay, Mills & Airasian, 2009). Again, I replayed all the audio recordings against the transcriptions to make sure all errors involving omissions and insertions were corrected. I reported the verbatim responses from the respondents. Furthermore, my supervisors played samples of the

interview against the transcriptions to ensure that the transcriptions were accurate records of what the participants said. They also checked how the coding was done for the transcription of the various interviews. Finally I piloted the instrument in Kwame Nkrumah University of Science and Technology (KNUST). This helped to refine the instrument.

To ensure reliability, the interview schedule had the same structure and sequence of words and questions for each respondent (Silverman, 1993). Also, all transcriptions were crossed-checked to ensure that there were no apparent mistakes (Gibbs, 2007).

Pilot Testing of Research Instrument

A pilot testing of the research instrument was conducted in KNUST. Three participants were interviewed. The interview guide consisted of 18 items covering the three main research questions apart from the demographic data (see Appendix B). At the end of the pilot some of the questions that did not elicit the appropriate responses were either omitted or modified. For example, question 5 "How will you describe such policies in meeting your career pursuit in the university?" was modified as "How do institutional policies act as barriers or enablers in meeting your career pursuit in the university?" The interview guide for the actual data collection consisted of 15 items beside the demographic data (see Appendix A).

Data Collection Procedure

An introductory letter was collected from the Head of Department of Educational Foundations to conduct the study (see appendix C). The letter was taken to the coordinator for RCAMAT for permission to conduct the interview. The coordinator then summoned a meeting with the students introducing me to

them. This gave me the opportunity to explain the purpose of the study and to seek their verbal consent. It was realised that most of the students with visual impairment visit the RCAMAT every day and so it would be easier to conduct the interview there. However, the interviewees were given the opportunity to choose the date, time and venue for the interview in order not to disrupt their daily schedules.

I arranged for a solitary room at the RCAMAT to conduct the interview in order to avoid interferences and to ensure that the responses to the questions were as independent as possible from one participant to the other. Though the interviewees were given the opportunity to choose where the interview should be conducted, most of them opted to be interviewed at the resource centre based on their schedule. Those who could not be interviewed at the resource centre because of their time schedules agreed to grant the interview in their halls of residence. To ensure that the data were accurately recorded, permission was sought from the interviewees to tape-record the session. After the interviews, the tape was played back to each interviewee so that they could validate their responses.

I predetermined some open-ended questions covering the various aspects of the study. However, in the actual interview the questions were not asked in any predefined order but depended on the interviewee's responses when they required probes into certain aspects of the topic. I used ten days to collect the data interviewing average of two participants each day.

Ethical Considerations

Informed consent form was read to respondents before they participated in the study. The inform consent form specified volunteerism of the study participants and the participant's freedom of exit anytime they wanted to do so. The participants were also assured of confidentiality and anonymity. After the informed consent was read, participants were asked to respond "Yes" or "No" to whether they would participate in the study or not. Therefore those who participated in the study were those who voluntarily opted to be part of the study. To ensure anonymity of the research participants, pseudonyms were used instead of names in the analyses (Creswell, 2009).

Data Analysis

Frequency distribution tables and percentages were used to analyse the demographic data. Thematic analysis was employed in analysing the data that addressed the three research questions. In the thematic analysis, major issues raised during the interview were put in main themes to make the analysis of the data relatively easier for discussion. Braun and Clarke (2006) explained thematic analysis as a qualitative analytic method for identifying, analysing and reporting patterns (themes) within data. They argued further that as thematic analysis does not require the detailed theoretical and technological knowledge of approaches such as grounded theory, it can offer a more accessible form of analysis, particularly for those early in a qualitative research career. Boyatzis (1998) specified that thematic analysis is a process of encoding qualitative information.

According to Braun and Clarke (2006), thematic analysis goes through six distinct phases. The phases are:

1. Familiarisation with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

The various phases are explained in Table 1.

Table 1- *Phases of Thematic Analysis*

Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing the data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a Systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic map of the analysis.
5. Defining and naming themes:	On-going analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Adapted from Braun and Clarke (2006, p. 35)

The data was analysed following the steps outlined above. Explained below is how I followed the various steps to analyse the data in this study.

Familiarisation with the Data

I transcribed the interview data myself. This gave me a fore knowledge of what the data was all about and the pattern of participants' responses. After the transcription, I replayed all the audio recordings against the transcriptions to make sure that all errors involving participants' verbal utterances were corrected. I then read through all the transcriptions two times to make sure I had a broad knowledge of the data collected. The participants were given letter codes (such as student A, student B … etc.) for easy identification.

Generating Initial Codes

Whilst trying to familiarise with the data, I took notice of recurrent ideas that seemed to span across the entire data set. These ideas were colour coded with the theme or sub-theme they represent put in parenthesis against them (see appendix D). For example a response given by Student C was coded as follows:

> *'I decided to study in UCC because of our standard of learning and also I think we have some kind of facilities as compared to other universities which we can choose from* ***(facilities)****. … the other reason that really motivated me was I wanted to be a teacher and I thought coming here to get that training will be of much help to me' (****to be a teacher).***

From the excerpt above two codes were generated from a single response. Another instance that indicates a single coding is highlighted in the excerpt below by Student D.

'It should be disability-friendly to make movement very convenient on campus' ***(physical/environmental support).***

Since I reviewed literature in certain thematic areas which also informed the interview questions, these initial codes were generated under those themes. Notwithstanding, I tried to identify other themes that did not relate to any specific theme from the literature review and these were also given codes. For example Student P said;

'... where I come from students do not do well because of lack of competent teachers ... so it is a motivation that one day I will join hands together with the teachers in Ghana make a better world where students will always pass their exams and move on to the next stage' ***(altruistic motivation).***

The excerpt above did not relate to either intrinsic or extrinsic motivation and so was coded and labelled as altruistic motivation. The coding was done for each individual interview. I then collated extracts that represented the initial codes together.

Searching for Themes

After the data was coded, I started looking for how the codes related to the predefined themes identified in literature. It must be admitted here that, the research was built around three predefined themes with sub-themes and those themes guided the analysis. Here, I was able to identify from the codes other sub-themes that were related to main themes identified in the literature. Therefore Braun and Clarke's third stage was not followed exactly in this study since the themes were predefined. One noticeable thing done at this stage was my attempt to look for how different themes combined to form overarching

themes and themes that were closely related were put together to aid the analysis. For example, academic challenges were closely related to technology and assistive devices challenges and so the two were put together in the analysis as can be seen in the excerpt below by Student D:

> *'The Perkin's braille we use to type, just one or two at the centre and when it is time for us to write exams, people want to use them but because of the scarcity, we are not able to use them, they are not enough' (**academic, technological and assistive devices challenges)*.

Reviewing Themes

At this stage, I reread the identified themes and the codes that had been captured under them. This ensured that the codes captured under the various themes really related to those themes. This also gave me the opportunity to reposition certain codes under more related themes than their initial ones.

Defining and Naming Themes

Apart from the new themes that emerged from the data gathered such as altruistic motivation, the analysis was done along the main themes and sub-themes identified in literature. Therefore I did not have to give new names except an instance where two themes were combined to form one overarching theme. Thus academic challenges and technology and assistive devices challenges were closely related and hence combined to form one overarching theme.

Producing the Report

This stage involved a write-up of the research report. I did not just produce extracts to support themes but rather I was analytic as possible by interpreting the data. I tried to make sense of the data gathered under the

various themes bearing in mind the research questions. I also produced evidence from the data that supported previous studies and those that were inconsistent with previous research were also presented in the research report. Code identities given to participants are in bold type for emphasis and attention. Also, verbatim responses are in italics and single quotation marks. Omissions from the verbatim responses are indicated with dots; three dots (…) for short omissions and six dots (……) for long omissions. Short omissions are words less than ten and omissions ten and above were considered long omissions and so indicated with six dots. Figure 2 shows the three main themes and the sub-themes identified under the main themes. The main themes are challenges, motivation and support with their respective sub-themes listed under each of them.

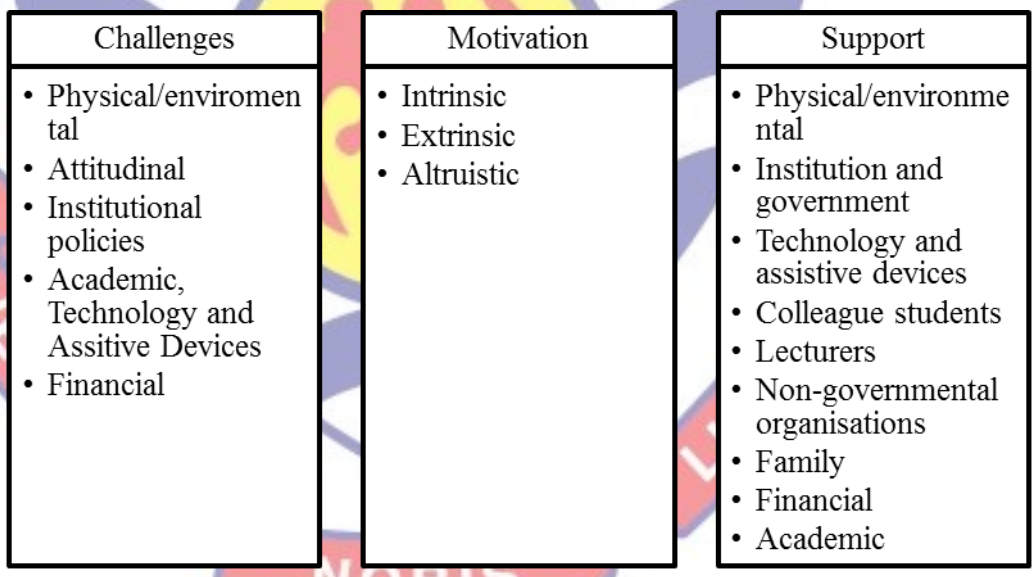

Figure 2: **A Chart showing the Main Themes and their Sub-themes**

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents analysis and discussion of findings of the study. These are presented according to the three main research questions that guided the study. Analysis of the demographic data of the participants was presented before the analysis of the research questions.

Demographic Data of Participants

Table 2- *Gender Distribution of Participants*

Gender	Frequency	Percentage (%)
Male	16	80
Female	4	20
Total	20	100

Table 2 shows the analysis of the results of gender distribution of the research participants. The data in the table shows that, out of the 20 research participants 16 (80%) were males. This means that more males than females participated in the study.

Table 3-*Age-Range Distribution of Participants*

Age-range (years)	Frequency	Percentage (%)
Below 21	-	-
21 – 25	11	55
26 – 30	8	40
31 – 35	1	5
36 – 40	-	-
Above 40	-	-
Total	20	100

Table 3 shows the analysis of the results of the age-range distribution of the research participants. Eleven (55%) of the participants were between the ages of 21-25, 8 (40%) were between 26-30 years. The table further shows that no participant was above 35 years old. It can therefore be concluded that the majority (95%) of the study participants were between 21 and 30 years.

Table 4-*Types of Visual Impairment among Participants*

Type of visual impairment	Frequency	Percentage (%)
Blindness	18	90
Low vision	2	10
Total	20	100

Table 4 presents the analysis of the results of the types of visual impairment among the research participants. The table shows that 18 (90%) of the participants were totally blind. It can therefore be said that the students with total blindness in UCC are more than those with low vision.

Table 5- *Academic Qualifications of Participants*

Academic Qualification	Frequency	Percentage (%)
WASSCE/SSCE	18	90
Diploma	1	5
First Degree	1	5
Total	20	100

Table 5 shows the academic background of the research participants. The table shows that out of the 20 participants of the study, 18 (90%) of them had WASSCE/SSCE as their highest academic qualification and 1 (5%) had First Degree as his highest academic qualification.

Table 6-*Level of Study of Participants*

Level	Frequency	Percentage (%)
100	2	10
200	8	40
300	3	15
400	6	30
800	1	5
Total	20	100

The data in Table 6 shows the level of study of the research participants. The table shows that 8 (40%) of the participants were second year undergraduate students, 6 (30%) were final year undergraduate students and 1 (5%) was a first year masters student. This means that the study involved participants at both the undergraduate and postgraduate levels.

Table 7-*Programme of Study of Participants*

Programme	Frequency	Percentage (%)
M.Phil. (English)	1	5
B. Ed. Arts (English/Religion)	7	35
B. Ed. (English)	5	25
B. Ed. (French)	1	5
B. Ed. (History)	1	5
B. Ed. (Religion/History)	4	20
B. Ed. (Religion)	1	5
Total	20	100

The data on Table 7 displays the programme of research of the study participants. The table shows that 1 (5%) of the participants was a postgraduate English student. The rest were all Bachelor of Education (B. Ed.) Arts students

studying various subjects or subject combinations. The table further shows that 7 (35%) of the research participants read B. Ed. Arts with English and Religion as their electives. The data in the table shows clearly that no student read any course that was Science or Maths based.

Table 8-*Duration of Programme*

Duration (Years)	Frequency	Percentage (%)
4	19	95
2	1	5
Total	20	100

Table 8 shows the duration of participants' programmes of study. The table shows that 19 (95%) of the participants were reading a first degree programme and hence the duration of their course is four years. Only 1 (5%) was studying a two year postgraduate programme.

Table 9- *College/Department of Participants*

College/Department	Frequency	Percentage (%)
College of Education Studies/Department of Arts and Social Sciences Education	19	95
College of Humanities and Legal Studies/Department of English	1	5
Total	20	100

Table 9 shows that 19 (95%) of the participants belonged to the Department of Arts and Social Sciences Education under the College of Education Studies.

Table 10-*Education Status of Participants' Parent/Guardian*

Education Status	Frequency	Percentage (%)
Educated	12	60
Uneducated	8	40
Total	20	100

The data on Table 10 shows the education status of participants' parents or guardians. The table shows that, 12 (60%) of the participants indicated that their parents or guardians were educated.

Table 11- *Occupation of Participants' Parent/Guardian*

Occupation	Frequency	Percentage (%)
Farmer	11	55
Mechanical Engineer	1	5
Teacher	3	15
Trader	1	5
Human Resource Manager	1	5
College Administrator	1	5
Banker	1	5
Civil Servant	1	5
Total	20	100

The occupation of parent or guardian of the study participants is displayed in Table 11. It shows that, 11 (55%) of the participants' parents/guardians were farmers. One (5%) parent/guardian was a mechanical engineer and 3 (15%) parents/guardians were teachers. This means that the majority of the study participants' parents/guardians are farmers.

Table 12- *Employment Status of Participants' Parent/Guardian*

Employment Status	Frequency	Percentage (%)
Employed	6	40
Unemployed	-	-
Retired	2	10
Farmer	11	55
Trader	1	5
Total	20	100

The data on Table 12 presents the employment status of parent/guardian of the participants. The table shows that 6 (40%) of the participants indicated that their parents/guardians were employed, 2 (10%) said their parents or guardians were on retirement and 11 (55%) said their parents/guardians were farmers. The next section discusses the main data obtained in accordance with the order of the research questions.

Main Interview Data

Theme (1) – Research Question 1 – What Challenges do Students with Visual Impairments Encounter in UCC?

The data collected for this research question were used to answer it. The results are presented as follows:

Sub-Theme 1 – Reasons for Studying in UCC and for the Choice of Programme of Study.

In an attempt to get some background information about why participants chose to study in UCC and the factors that influenced their choice of programme, I asked participants why they chose to study in UCC, what informed their choice of programme of study and how their impairment influenced their choice of programme.

When participants were asked why they chose to study in UCC, the responses were diverse. The following excerpts from the interview highlight their reasons.

'Actually I've not been in this vicinity so I decided to change the environment from B/A where I schooled; … to the Central region.'

(A verbatim response from Student M).

The excerpt above shows that change of environment is one of the reasons why participants chose to study in UCC. Aside this, participants wanted to pursue education as a course. Supporting this, **Student A** said;

'I was motivated to do education so that I could be a teacher so that was why I decided to study in UCC.'

The facilities in the University and the respect associated with obtaining UCC certificate when looking for a job were also reasons for studying in UCC. The following excerpts highlight these.

'I decided to study in UCC because it's one of the universities that are integrated. Then I thought they would have the necessary materials to support me in my education and then with that kind of respect that is given to UCC certificates when we go out there.'

(A verbatim response from Student D).

'I heard when someone completes UCC the competition for job with other university graduates …, UCC students stand a higher chance of getting employment.' **(A verbatim response from Student H).**

The main factors that influenced participants' decision to study in UCC are desire to read education, change of environment, facilities at UCC and the prestige associated with having a UCC certificate when looking for a job. The

findings above are consistent with earlier researches. Klinkosz et al (2006) found that if students realise studying in the university as successful rehabilitation, it helps students with visual impairment to be able to study and pass their examinations. Scott (2009) also found that the flair for schooling in a new geographical location to pursue higher education brought enlightenment and added knowledge. It can therefore be said from the findings that the factors that influence an individual to study in a university include the desire for a change of environment, the facilities in a university to assist the academic work of the student and the respect and recognition ascribed to the products of that university.

When participants were asked about the factors that influenced their choice of programme, two main reasons dominated participants' responses. These were employment opportunities and personal desire as can be seen in the excerpts below.

'With the visually impaired most often aside education, … we are limited so it's like offering education makes job quite readily available so that informed my choice of this programme.'

(A verbatim response from Student I).

'In our education system in Ghana here as a visually impaired, if you don't pass through education and you want to do any other courses or pass through any programme then afterwards you have to look for your own job, you will find it difficult so when you get to the education field it is easy for you …… that's why I chose this particular programme of study.' **(A verbatim response from Student K).**

It can be deduced from the above excerpts that the participants felt taking courses in other areas where they would have to look for jobs after their programme of study would be difficult because of their condition, hence they decided to read education so that they can be employed easily after graduation.

Another reason that was cited for the choice of programme by several students was personal desire to be teachers. In support of this **Student N** said;

'I want to become a teacher in the future and then to also impact what I have learnt unto others.'

The high rate of unemployment among university graduates have challenged the choice of programmes among many university degree aspirants. Thus many people are forced to go into areas where they can easily secure a job after graduation. The participants in this study were caught in the same web of having to pursue courses that would have ready market for them as indicated from the extracts from the interview. These findings suggest that there are plethora reasons why students choose to study particular programmes in the university.

Responses on how the impairment informed participants' choices of programme were dichotomous. Whereas some of the participants indicated that their impairment had no part to play in their choice of programme of study, others felt their impairment really restricted their choice of programme of study. But for their impairment, the latter would opt for different fields as can be seen in these excerpts.

'For my programme of study it's not a choice, I actually did not like to read B. Ed. Art. I had no option than to choose B. Ed. Art. It was not really an option … conditions compelled me to.'

(A verbatim response from Student H).

Another participant said;

'Basically if not because of my visual impairment I was thinking of something like journalism …… I saw it as very difficult to materialise so my ambition to be a reporter or a correspondent was diverted to the teacher I am trying to be now.'

(A verbatim response from Student D).

It is apparent from the excerpts that some of the participants preferred different professions but their impairment influenced their choice of programme. From Table 6, it is evident that all the undergraduate participants of the study read B. Ed. Arts. Even the Masters student read B. Ed. Arts during his first degree. I observed that the programme of study is not something students with visual impairment choose rather the University absorbs them automatically into specific education courses.

Closely related to this, participants expressed that they would have difficulties reading other programmes which involved Mathematics or calculations. Some respondents expressed their views on this.

'… once this one does not involve any calculation, this one is easier to be done as compared to other courses.'

(A verbatim response from Student F).

Another stated that;

'Apart from the arts I wouldn't be able to offer the other courses because of calculations and diagrams.'

(A verbatim response from Student Q).

Some participants were of the view that their impairment did not have any role to play in their choice of programme of study. The extracts below highlight this.

'It doesn't have a part to play. We have our colleagues here who are not impaired, ... but they are offering the same course. So my impairment doesn't have any information on my choice of programme.'

(A verbatim response from Student G).

'No for that one it does not inform anything. My impairment, this course actually if I were to be a sighted person I don't know, I wouldn't have changed it. Just that I'm interested in the course that I'm studying especially the religion aspect that is why I've even majored in that ....'

(Student M).

These extracts indicate that some participants' impairment had nothing to do with their choice of programme and that even if they could see they would still have pursued the same course. Probably, their desire to be teachers outweighed the impact of their impairment.

The next theme addresses the first research question which has to do with the challenges encountered by students with visual impairment in UCC.

Sub-Theme 2 – Institutional Policies

In order to know the provisions that are made for students with disability in UCC, I asked participants to mention what challenges they face

with policy provisions that are made for them and how the policies act as barriers or enablers for their academic pursuit in the University. The responses to these questions were diverse. On one hand they were enablers, on the other hand they were barriers or enablers but with challenges. It was realised from the data that the major policy provisions that were made for students with disabilities in UCC centred on accommodation, transportation and academics work.

Accommodation

On accommodation, the participants had some things to say. The excerpts below highlight their views.

'OK really there is a policy that allows us to be in the halls for the whole of, as long as the programme will last.'

(A verbatim response from Student C).

Another student commented this way.

'In terms of accommodation visually impaired or persons with disability are normally allowed to stay in the hall for four years so every year they reapply and then they stay within the hall. I was told by my senior hall tutor that it's just a consideration ... not a policy ...'

(A verbatim response from Student D).

The excerpts above indicated that students with disabilities are allowed to stay in the halls of residence as long as their programme of study would last. This is not the case for students without disabilities. It can also be seen that whereas some respondents see it as a policy, others think it's a practice that students with disabilities are made to stay in the halls for their entire stay on campus and not a policy. The reality is that, the University's Policy Draft for

persons with disabilities specifies that students with disabilities are to be housed in accessible accommodations throughout their programme (UCC Disability Policy Draft). Since there is uncertainty among students and staff as to whether or not this is a policy, there is the need for sensitisation among the entire University community on the policy provisions for the students with visual impairments. That is why Tinklin, Riddell and Wilson (2004) suggested that persons with disabilities deserve special supports in education in both policy and practice, therefore this policy provision and practice by the administration of UCC is laudable.

Transportation

Another area that emerged in terms of institutional policy was transportation. The excerpt below summarises what participants had to say.

'With regard to transportation normally we don't pay when you use the shuttle. If you want to go to old site or from old site to the new site you don't pay.' **(A verbatim response from Student D).**

From this excerpt it can be seen that students with visual impairments board the shuttles freely whenever they want to move about on campus. This facilitates their movement on campus and also spares them some financial burden on transportation on the University campus.

Academic Work

The third key area expressed in terms of institutional policy for the students with visual impairment in UCC was on academic work. One of the participants presented his views this way.

'The school has also had that practise of giving us recorders when we come as "freshers.'' ... Normally because of the slow pace of our writing,... there is a calculation of the time that will be given for the other students. So half of that time will be calculated and added to the normal time.' **(A verbatim response from Student C).**

The excerpts above indicate that the University through the RCAMAT provides free recorders for students with visual impairment when they enter the University. Also, the University permits them to write their exams at the resource centre and there is an extension of time during their exams. All these are provisions made on the University's draft Disability Policy.

Some participants indicated that the policies acted as barriers sometimes, as enablers at other times and yet at times too they were enablers with challenges. The following excerpts highlight what participants said about the enabling aspect of the policies on the various themes.

'The accommodation too at least it has saved us from the trouble of searching, looking for hostels, that stress of looking for hostel so accommodating us for the whole of the programme really goes a long way to help us in our academics.'

(A verbatim response from Student D).

'Like the staying in the hall those in the diaspora sometimes you hear of thieves and some of the hostels are not closer to the lecture halls. So being here when it comes to mobility you will be able to know the place, now any visually impaired can move from his or her hall of residence to the lecture halls though with some help so the policies are good.'

(A verbatim response from Student T).

From the excerpts it is evident that the four year stay in the halls of residence helped them to avoid needless hustling in search for hostels; facilitated their movement and also enhanced their security.

The participants said that the transportation component of the policy facilitated their movement and has helped to eliminate the financial stress on transportation. One of the participants summarised it as;

'... with the shuttle too, I will say yes it helps us in our movement some find it very difficult in getting finance sometimes so this policy has gone a long way to help those who are, to get to lectures on time.'

(A verbatim response from Student F).

The policy has also helped to meet academic needs of the participants. The excerpts below highlight this.

'With regard to the extra time during exam and quizzes it helps us very much because our way of writing and reading is not as easy as the use of pen or reading from a paper or print so when we have extra time it enables us to finish the work …… the extra time help a lot. Had it not been that most of us wouldn't be able to finish up with whatever work we are given being it quizzes or examination.'

(A verbatim response from Student E).

Another participant indicated this:

'Like the academic side allowing us to record the lectures help us in a way when we come out of the lecture theatre. When you have your own time you sit down then you listen to the lecture you make your own notes out of that because in the lecture theatre, you cannot write

alongside with the lecture because the lecturer will be moving fast so in doing this it helps us.' **(A verbatim response from Student K).**

The excerpts show that without the extra time given to students with visual impairment during quizzes and examination they would not be able to complete their work. Also the recorders given to them help them to record and replay all that was said at lectures later to make their study notes.

From the above discourse it is evident that the policies were helpful to students with visual impairment in UCC. The free recorders enabled them to record lectures, free transportation enhanced their movement on campus and the four year stay in the University's halls of residence helped them to avoid needless hustles in search for hostels. The policies therefore go a long way to facilitate the performance of students thus supporting Shahid's (2013) opinion that students can improve their academic endeavours if the school's atmosphere is conducive and the goal of the school geared towards academic excellence. The provision of transportation for students with visual impairment in UCC is good and it corroborates the suggestion of Fatima et al (2014) that transportation facility should be provided to all students with disabilities in general and to students with visual impairment in particular at higher education level. These policy provisions are creating enabling environments to enhance the academic work of the participants.

Inasmuch as these policies were considered beneficial, students also recounted several challenges they encounter with these policies. The following are some of the participants' comments.

'You know with the accommodation you are supposed to go with a friend that you are used to. At times the hall imposes people on you who

you don't even know and currently I per se I'm facing a problem with whom I'm staying with. Because at times my things get missing and so all these things are challenges and as I said sometimes it becomes very difficult for you to get the room and that is an indisputable fact.'

(A verbatim response from Student R).

'... Most of the halls don't give us the opportunity to stay one or two in a room. Because if you are many, it creates mobility problems and the room will be congested with bags and things all over, so moving around will be very difficult. So if you don't take care you can be injured.' **(A verbatim response from Student B).**

Accommodation challenges confronting students with visual impairment include the number of students put in a room. That is the fewer they are, the less the challenge and the more they are, the greater their challenge. Also the pairing process posed some challenges to the students with visual impairment, whereas participants expressed that they would prefer to choose their own roommates, the practice is that the halls of residence do not allow them to choose their own roommates rather the halls do the pairings which posed difficulties in terms of getting assistance from their roommates.

This is a clear indication of a mismatch between policy and practice. Reviewing the University's Disability Policy Draft, I found out that students with visual impairment are to stay in a room with a sighted counterpart for assistance. An excerpt of the policy indicates this; *"A person with a visual impairment having a room with no more than one (1) other person, due to organizational concerns related to his/her impairment, in a quiet area that allows for listening devices to be used."*

This policy of the University is consistent with earlier findings by UNESCO (1997) where some universities provided disabled students with single rooms to facilitate mobility and other universities accommodated a disabled and a non-disabled student together so that assistance would be close, if needed. However, in practice students with visual impairment in UCC end up being more than 2 in a room. There is therefore a clarion call on the University authorities to ensure a full implementation of the policy so that the students' academics would be enhanced.

Again, the free shuttle policy had some challenges. The excerpts below summarise what participants had to say.

'Like the transportation policy you know sometimes when you are taking the shuttle sometimes the drivers want to take some money from you and they will be worrying you to pay money and a whole lot especially when you are two or three visually impaired students going, they will as if they will not pick you and then they will be harassing you and a whole lot.' **(A verbatim response from Student L).**

Another participant indicated this:

'Ok with that of the shuttle what I will like to say is it's like most or some of the drivers are not aware and so whenever you board it some try to resist that you are not supposed to take it and at that instance it causes you some embarrassment, … it makes people think that you want to board it without paying and so if they can be a bit sensitized.'

(A verbatim response from Student I).

The participants' comments show that some of the shuttle drivers do not want to adhere to the policy. Participants indicated that sometimes when

they want to board the shuttle, the drivers demand fares from them and sometimes the drivers embarrass them in the presence of their sighted counterparts. A possible explanation of the drivers' attitude may be that they are not aware of the policy for students with disability or they are aware but deliberately deny the students the privilege due them.

With the provisions on academic work, participants indicated that the recorders that are provided for them were not durable. In support of this, one student this:

'Our recorders, I mean we have quality sound recorders and of course they are doing, they provided some recorders now but sometimes the problem is that those recorders are not up to standard so they easily breakdown, sometimes you use it for one two three days and everything breaks down. So that is a problem.'

(A verbatim response from Student A).

Also the extra time allocated for examinations was not adequate. In support of this a student stated this:

'I have spoken about the time factor to be something good but I think it's still not enough, it still doesn't solve our problems, somehow scanty.' **(A verbatim response from Student E).**

The excerpts above indicate that participants had challenges with the quality of recorders that are provided for them and also with the additional time given during examinations which they considered as insufficient.

It is apparent from the discourse above that participants expressed contrasting views on the efficacies of the policies towards enhancing their academic and educational development in the University. Generally, it can be

deduced that the policies are good in meeting the participants' academic needs in the University; however, the students encountered challenges with some of the policies. It can also be inferred that it is not the policies per se that posed the challenge, rather the practise of the policies. Tinkling, Riddell and Wilson (2004) pointed out that persons with disability deserve special supports in education, in both policy and practice. The University must therefore ensure full implementation of its policies in order to facilitate the academic work of students with visual impairment.

Even though the University has a Disability Policy that caters for these provisions, it was realised that some of the policies are perceived by some participants as mere practices and not officially documented. This presupposes that not everyone within the University community is privy to the policy. It is incumbent on the University authorities to create awareness of this policy. UNESCO (2009) rightly observed that in countries where disabled students are accepted into universities, little effort is made to create awareness of their possible needs amongst academic staff and it is unusual to find a formal system of support. Kasiram and Subrayen (2013) emphasised that university policy and planning structures need to accommodate students with special needs, not only by changing their policies, but also by providing support where such policies exist.

Sub-Theme 3 – Physical/Environmental Challenges

One of the major challenges confronting students with visual impairments in the University was the physical environment. The excerpts below summarise the challenges participants encountered on this.

'There are some open gutters that are supposed to be closed but are not closed so we are just falling into it. There are some poles that are also erected and they are supposed to also take them on the way. …… Talking of staircase at lecture theatres you know like when you go to "Felt," there are no elevators there so sometimes we will be having our lectures upstairs so I believe if there's something like a stampede or something like that it can affect. So they have to put some structures or elevators for us too.' **(A verbatim response from Student L).**

'Like some of the places there are open gutters which things are not there to guide us to know that this place there is an open gutter. And it's not all the time that we will be moving with sighted colleagues. Some of the drivers don't know the use of this our white cane. Sometimes our movement with vehicles become difficult and even with some of the roads they park vehicles anyhow. It makes our movement very difficult.' **(A verbatim response from Student J).**

It can be realised from the excerpts of the participants' statements that the environmental challenges confronting the students with visual impairment in UCC include structural inaccessibility such as the absence of elevators in storey buildings, and the stair cases in buildings instead of sloppy walkways or rolling stairs. Other challenges participants indicated have to do with the physical milieu of the University which include many open gutters on the University campus; wrongful parking of vehicles, lack of rails to guide movement and the erection of poles and other obstacles in walkways which make their movement on campus very difficult.

The findings from this study corroborated the findings of Scott (2009) which shows that the campus facilities; conceptualised as the physical environment of the university, such as buildings, department offices, and the aura of the university's physical space, provides challenges to students who are visually impaired. It is also in consistence with the findings of Gondo and Gondo (2013) which states that students expect to have easy access to their tutors' offices and lecture rooms. However, these became inaccessible since some offices were upstairs. The participants in this current study indicated that the staircases in lecture theatres and halls of residence posed challenges to their movement. It must be noted that the impact of disability disappears when the environment becomes accessible to persons with disability and enables them to integrate well into society mainstream.

Sub-Theme 4 – Challenges with Attitudes of Lecturers and Students

The participants raised several concerns about the attitudes of lecturers and their colleague students without visual impairments. These concerns are depicted in the excerpts below:

'You see we have special needs. The lecturers instead of given us the materials when you approach them … they are not willing to give it out. Sometimes when you intend recording the lectures you are prevented or they in a way scold us. They make a whole lot of statements against us which is not the best. Our colleagues too sometimes shun from including us in group work. They think … you are less important and they think without you they can do the work so they don't include you.'

(A verbatim response from Student B).

Another participant said this:

> *'The lecturers … when we go for lectures and we want to record, they will either say we have to ask for permission from them before recording or they will say don't record my voice. And sometimes too they write on the marker board, our sighted colleagues will see and write but we cannot see and when you ask them to read to you some will read some will not. Our colleague students too in fact some of them are not friendly at all. You ask them to read something for you they will say I'm coming, I don't have time; they will give you excuses. In the end the person will not come. Even when it comes to movement sometimes you feel that they do not want to touch you because if they touch you they will also become blind.'* **(A verbatim response from Student G).**

The above excerpts show that the participants were of the opinion that lecturers were unwilling to provide their lecture notes in softcopy for them, and some lecturers prevented them from recording their lectures. On other occasions too, some lecturers wrote on the board without reading to the hearing of the students with visual impairment. Previous studies (Jameel, 2011; Saksena & Sharma, 2015; Scott, 2009) identified attitudes of faculty members and students to be one of the challenges confronting students with disability. This current study also confirms this. Ganapathi (2014) found out that faculty's attitudes toward students with disabilities, their awareness of these students' needs, and their knowledge of the reasonable accommodations available for them were paramount to the academic progress of students with disability. However, the comments from the participants of this study indicate that, some lecturers in UCC were not sensitive to their needs and they were not ready to

make modifications in their methodologies to accommodate the needs of these students.

Johnson (2006) and Jung (2003) found out that negative attitudes of faculty and administrative staff prevent students especially those with invisible disabilities, from disclosing their disabilities and from requesting accommodations they are entitled to. From the data gathered it was observed that not all lecturers were willing to provide assistance to the students with visual impairment. This supports earlier findings by Barazandeh (2005) and Kraska (2003) which state that only a few faculty members were willing to change the material covered in their courses to suit these students' learning needs. UNESCO (1997) found that attitudinal challenges among lecturers were exhibited when lecturers refused to change their teaching practices to accommodate disabled students.

Mushome and Monobe (2013) found that lecturers found teaching visually impaired students a problem because they were never trained to teach students with visual impairment. It can therefore be inferred that some lecturers find teaching the students with visual impairment an added burden and hence are not always ready to meet the academic modifications these students require.

The participants also expressed difficulties with the attitudes of students as could be seen in the extracts above. Some colleague students refused to assist them in their movement on campus. Also, some refused to read for them to record and yet others too shunned including them in their group activities because they feel the students with visual impairment may not be able to contribute adequately. Opini (2012) found out that students with disabilities were discriminated against in group formation in the classroom. This is

confirmed by the current study. These attitudes of sighted students towards the students with visual impairment are quite unfortunate and could pose real challenges to these students with impairment.

The findings of this study on the attitudes of lecturers and colleague students have emerged from the literature reviewed. For example, Saksena and Sharma (2015) found out that attitudinal barriers posed by the insensitive behaviour of students and staff members in the colleges towards students with disabilities were more detrimental than physical barriers. They argued further that within the college, lack of information about myths and stereotypes about students with disabilities can result in negative attitudes and insensitive behaviours on the part of some faculty, staff and students towards students with disabilities which can even make it more difficult for such students to access education equally. Brewster (2014) also found out that the attitudes and understanding on the part of staff and other students were not always favourable and that even when practical barrier to full participation are removed, there remains attitudinal or cultural barriers to which students are sensitive.

It was also discovered that the attitudes of drivers posed challenges to students with visual impairment in UCC. The following were some of the comments from a student:

> *'Ok with that of the shuttle it's like most or some of the drivers are not aware and so whenever you board it some try to resist that you are not supposed to take it and at that instance it causes you some embarrassment, it's like it makes people think that you want to board it without paying and so if they can be a bit sensitized*.'

(A verbatim response from Student F).

Another participant indicated that:

'... I will still hammer on the shuttles that is where probably you will be walking with a colleague and because it's for free some of these drivers might behave very awkward towards you as if probably if they had asked for the money we cannot pay and I think it's a bit disgrace if it happens so.' **A verbatim response from (Student O).**

It can be inferred from the above excerpts that some of the drivers are not willing to comply with the University's policy of free transportation for students with visual impairment. This attitude posed real challenges to the students' transportation on campus. It also inhibits the full implementation of the transportation policy for students with visual impairment in UCC.

Sub-Theme 5 – Challenges with Academic, Technology and Assistive Devices

The participants expressed some challenges they faced with academic, technological and assistive devices. Comments by two of the participants revealed the various challenges students with visual impairments encounter in UCC.

'Academics, really access to relevant reference materials is one of the serious academic challenges because most of the hand-outs are supposed to be brailed for us but here is the case the cost of braille sheets has also gone so high that most of our people are finding it difficult to afford it and so it makes it difficult. Because they will not have access to the document to read and prepare for what they are supposed to learn, so it makes it difficult for us. And then as I said with

the problems of sheets getting missing at the department it's one of the serious challenges that inhibit our academics.'

(A verbatim response from Student C).

For the library books I'm in level 300 since 100 till now I've never gotten any library book to read because I can't access it. It's difficult and even one day I decided to borrow one but I was told if you want to borrow a book from the library as a visually impaired you need to borrow one at a time and until you return that one they will not give you the other one. And there is no way you can go and sit over there and read because you can't see. It's a challenge because as your sighted colleagues are getting that opportunity to always sit there … and may take ten or twenty books at a time, sit down and do their research, what about you who cannot go and sit there and read …? So it's a big challenge to us.' **(A verbatim response from Student N).**

The comments show that the University's libraries had no braille books. All the books in the University's libraries are in print which is inaccessible to students with visual impairment. The only way they could get access to library materials was to borrow and braille, however the cost of braille sheets also hampered them. This finding is not unique to this study. Harpur and Loudoun (2011) noted in their study that one of the biggest challenges confronting university students with blindness is accessing the written word. This is reiterated by Sachs and Schreuer (2011) who said that accessibility rather than ability is the explanation for academic differences between students with and without disabilities. This study is also consistent with previous studies that students with visual impairments worry that they will not have access to

accessible formats of their textbooks in time to keep up with reading assignments (Gilson et al, 2007; Holloway, 2001).

Participants also indicated that their scripts easily get missing resulting in a number of them battling with incomplete assessments (ICs). The extract below throws more light on this.

> *'I think they don't really follow-up on our papers to mark that results in the number of ICs. As I sit here I even have one to rectify. I think that one too if it can be improved upon for us. The zeal that they have to mark other people's papers I think that same zeal should be given to the visually impaired also because it's not about the medium of writing but about what has been written.'* **A verbatim response from (Student O).**

The extract above summarises the students' concern about their scripts getting missing. They explained that lecturers do not come for their scripts from the resource centre where they write their exams. Rather the resource persons send their scripts to lecturers in the departments and in the process their scripts are misplaced. They could not tell whether the resource persons never sent them or the lecturers received them but did not treat their scripts as that of their sighted counterparts and in the process lose their scripts without a trace. This has resulted in a number of them having incomplete assessments. The protocol for resolving incomplete assessment is always stressful coupled with the fact that these students are visually impaired and they will have to move from one place to another trying to resolve incomplete assessment. The University examination council may have to look into this so that this perennial challenge confronting the students can be minimised if not total eradication.

Again participants indicated that some lecturers write on the board without reading what they have written so that the students with visual impairment can also benefit. The following excerpts highlight this:

'Some lecturers write on the board and they don't mention what they write on board.' **(A verbatim response from Student E).**

'I think so far with the academics what happens is that when you go to the lecture theatres, some of the lecturers do not know much about the visually impaired students and so when they come they teach as if it is only the sighted colleagues that are in the class. Some of them go to the extent of writing on board without even discussing what is written on the board.' **(A verbatim response from Student H).**

This also confirms the findings by Dakwa (2009) that teachers ignored the needs of students with visual impairment when they continually used the lecture methods and ignored the presence of students with visual impairment.

Some lecturers also never gave hand-outs and those who gave hand-outs too never wanted to give them the softcopies which they could easily emboss at their resource centre as summarised in the excerpts below.

'Sometimes we don't get hand-outs.'

(A verbatim response from Student A)

'Some of the lecturers …… now we are in that kind of technological world. Some of us use the computers to read and so if you are given something in print … to the other colleagues, I think they should try to make it available to us in softcopy too which … some of them really don't.' **(A verbatim response from Student C)**

Connelly (1985) indicated that the biggest problem in adapting the on-going school programme for students with visual impairment is the need to get information through other means other than visual. Students Support Service (2002) also found that some universities allow their lecturers to provide notes to their students on computer disk for the blind and the partially sighted students and those whose lectures are not word-processed may agree to make their notes available. The findings of this study contradicts the findings of the Students Support Service because, participants in this study indicated that lecturers were not willing to give their lecture notes in accessible formats to the students with visual impairment which posed serious academic challenges.

The participants also indicated that lack of appropriate seating during lectures was a challenge. One of the participants summarised this by saying:

'With the lecture halls sometimes because most of the times we record sometimes especially in the case of large classes if you go and then you do not get seat in front it makes it difficult recording. Because probably you have to sit at the back or somewhere not closer to the front and then if that happens you are unable to have a fruitful recording. So I think if we can be allocated seats that would help.'

(A verbatim response from Student I).

It was realised from the excerpt above that the students mostly did their recording at lectures; however, sometimes in large size classes they often miss the front seats and at times sit at the back which makes quality recording very difficult. It can therefore, be concluded that if seats are not reserved for the students with visual impairments at the front, they may not be able to benefit from the lecture. Human (2010) stated that blind learners learn mainly through

their sense of hearing in a group situation. Therefore, if students with visual impairments are not positioned where they can maximise the use of their hearing, then they might not be able to benefit from the lecture. The current findings support previous studies. For example, some researchers found that some faculty have never been adequately trained in providing accommodations to students with disabilities or have not been exposed to students with disabilities (Cawthon & Cole, 2010; Finn, 1997; Leyser et al., 1998). This means that the accommodations required by students with visual impairment from lecturers include lecturers providing learning materials in accessible formats and positive attitudes towards them.

Closely related to academic challenges were challenges with technology and assistive devices. Evidence is provided in the extracts below.

'The non-availability of textbooks in braille, the non-availability of audio books, sometimes I mean when you get the hand-out you have to bring it here so that it will be turned into braille, sometimes it delays, ... frequent breakdown of our equipment and that has a very negative effect on our academic work, once the machine breaks down it means nothing can be done, your work cannot be printed.'

(A verbatim response from Student A).

'A whole lot because most of our documents are not in braille, are not embossed ... you see whereas the sighted, they have those hand-outs already in print for them, we have to go for the hand-outs then bring it here which is going to take some days or months, sometimes the time you get it you are almost heading towards exams so even the quizzes time we don't get them. So it really affects us and also we don't have

audios especially literature for instance we don't have the audio books and so almost virtually our materials are not at our disposal so we have to fight for it. So they pose challenges for us.'

(A verbatim response from Student B).

And then our Perkins, the Perkin's braille …… just one or two at the centre and when it's time for us to write exams people want to use it but because of the scarcity our people are not able to use them. It's just one or two and they are not enough.'

(A verbatim response from Student N).

The excerpts above indicate the participants concern about challenges with technology and assistive devices. The students indicated that they do not have enough embossers and Perking's braille. At the time of the data collection the participants indicated that they had only one embosser functioning which easily breaks down because of the workload. They explained that it really takes a lot of time for them to get their notes in braille when they take their notes to the resource centre. This delays their reading towards quizzes and end of semester examinations. This finding is consistent with earlier researches that students with visual impairments worry that they will not have access to accessible formats of their textbooks in time to keep up with reading assignments (Gilson et al, 2007; Holloway, 2001).

Also, the computers at the resource centre were not enough to accommodate the number of students with visual impairment. The following are extracts from the interview.

'The computers that we have too, they are insufficient and even most of them are not working effectively. We do not have more modernized

devices in the resource centre and so it also serves as a challenge.'

(A verbatim response from Student B).

'The computers here some of them are broken down most of them are not functioning as they used to, I mean they have lost efficacy so they need replacement but for a very long time they have not been replaced and it's a big problem. In fact the number too is woefully inadequate.'

(A verbatim response from Student A).

The extracts above express participants' concern about the inadequacy of the computers at the resource centre and that some of them are not even functioning. It was realised that most of the students do not have their personal laptops and so they relied mostly on the computers at the resource centre for browsing and typing their assignments. Therefore if the computers are inadequate, then there can be a real problem for the students to meet the demands of academic work.

Moreover, participants expressed the unavailability of other technological and assistive devices. The excerpts below highlight this.

'Printer for instance, there is a machine that converts recorded materials into braille, but there is none in UCC.'

(A verbatim response from Student B).

'... I know there is a machine like the computer, you type everything in it and it makes it appear in a braille form. …… and then others even reading if you are having enough of these machines it would have helped us a lot in our reading so that we may not have to rely so much on braille sheets which has become so costly now.'

(A verbatim response from Student C).

'Technology and assistive devices are not enough …… but there's a machine I learnt reads books direct for you, we don't have them, and then braille photocopier machine. They bring about inaccessibility. We are not able to access it all the time so there's shortage and that shortage leads to inaccessibility.'

(A verbatim response from Student E).

The excerpts above indicate that, there are other technological devices which are not available in UCC which if were available would have facilitated their academic work. The findings above mean that students expect to have adequate, modern and functioning technology and assistive devices in order to realise their academic dreams in the University. These highlight the views of Gondo and Gondo (2013) who indicated that students with visual impairment expect to have access to modern technology and adequate resources to help them pursue their course. Even though some of the technology and assistive devices were available, participants still had challenges with them. Brewster (2014) indicated that various services and support mechanisms are within the university which aim to ensure that disabled students are not placed at a disadvantage; however students' experiences may still not be entirely positive. Gilson and Dymond (2012) pointed out that people with disabilities can often become more independent and productive through the use of assistive technology; however barriers to its procurement can impact postsecondary education success rates. Until adequate and appropriate technological and assistive devices are provided in the University for students with visual impairment, optimisation of educational achievement of these students may be compromised.

Sub-Theme 6 – Financial Challenges

Another major challenge that was expressed by the participants was financial. It was observed during the interview that most of the students with visual impairments in UCC came from poor homes. Perhaps the occupational and employment status of participants' parents or guardians displayed in Tables 11 and 12 had a link to this. They therefore outlined a number of financial challenges as can be seen in the responses below:

> *'Most of us are not from affluent homes, you come and you have nothing to dwell on. Within a twinkle of an eye your money is finished and it's very difficult to even get your next meal. That is a challenge.'*
>
> **(A verbatim response from Student P).**

Another student also commented this way:

> *'I will say in purchasing some of our learning materials there are financial challenges. That is some of them are quite expensive especially with our braille papers and then some of our writing materials they are quite expensive. With the braille papers for instance you know before you emboss a four page work you have to get like three times of the braille sheet so if the pages are four you have to get twelve of them to braille and so since it is quite expensive that makes it difficult to get enough. I think the needs of the visually impaired are quite enormous and sometimes because of that even before you finish meeting those needs you are challenged with how to get your fees and so that makes it difficult. Sometimes it gets so stuck even it gets to a point that academic work will be beginning and then you are not even able to settle it.'* **(A verbatim response from Student I).**

'The common fund, there's something that is given to the district assemblies to be given to us. In actual fact some of these districts even decide to hoard the money so at least if a certain percentage can be deducted so that they will channel it here I think that one will help. Some of us virtually we don't take anything from our districts because you go there and they wouldn't even mind you. So I think those monies are just going waste if they can be channelled here so that we use to buy braille sheets and quality recorders, it will help.'

(A verbatim response from Student O).

From the excerpts above it can be seen that the students encountered financial challenges such as difficulties in paying school fees and accommodation fees, lack or inadequate funds to purchase learning materials such as braille sheets, and inadequate finance for their overall upkeep in the University. It is realised that participants major source of financial assistance was their families. The other source of financial assistance was the District Assembly Common Fund for persons with disability which on most occasions their districts even denied them. This finding supports that of the Youth Advisory Committee of the National Council on Disability (2003) which found that financial aid is a barrier to postsecondary studies for students with disabilities. Jameel (2011) indicated that students with disabilities in several colleges are exempted from college fees if they do not get financial assistance from anywhere.

The current study found a contradictory position. In UCC the students with visual impairment are not exempted from any fees paid by other students. Even these students had to purchase their braille sheets. However, they

expressed that in the University of Ghana (Legon), braille sheets are supplied for students with visual impairment. Therefore without financial support the students with visual impairment in UCC might continue to face challenges in their academic work. Opini (2012) stated that students with disabilities incur additionnal disability related expenses in their pursuit of higher education compared to non-disabled students. She pointed out that without proper financial supports, many students with disabilities will not be able to attend university, even though they get admission. This may partly account for the low enrolment of students with visual impairment in UCC.

It was also realised that the government has a bursary for persons with disabilities in tertiary institutions. I found out from the Office of Disability Services (ODS) that the current amount is 340 Ghana cedis every academic year. Below is a comment by a participant on the issue of the bursary:

'There's a bursary but what happens is that it normally delays for instance it will even come at the end of the semester or sometimes after the academic year and so it is difficult to ... use it for what you are to use it for. Because we are to use it for our sustenance on campus and then it will come at the end of the academic year.'

(A verbatim response from Student I).

The excerpt above indicates that though there is a bursary for the students with visual impairment on campus, the money usually delays in coming. It is therefore difficult for students to budget with the money. The amount is also woefully inadequate looking at the additional cost that the students incur because of their impairment. Opini (2012) found in her study that though the students got government loans, the money was not enough for

their fee, accommodations, learning materials, and general upkeep. This current study's finding is similar.

Theme (2) – Research Question 2 – What Factors Motivate the Students with Visual Impairment in UCC to Complete their Programme?

In spite of the challenges confronting students with visual impairment in UCC as expressed by participants, a number of them who enrol for various undergraduate and postgraduate programmes complete their courses of study in the University. I was therefore interested in finding out the factors that motivate them in their academic pursuit in the University. Generally, it could be observed from the data gathered that the factors that motivated the students with visual impairment in the pursuit of their educational advancement were intrinsic, extrinsic and altruistic.

Sub-Theme 1 – Intrinsic Motivation

Evidence from the data gathered suggest that interest, belief in one's capacity to succeed, desires and aspirations were the intrinsic factors that motivated students with visual impairment to cope with their academic work.

Interest

The participants indicated that they were interested in completing their programme of study and also interested in the teaching profession. Below are excerpts from the interview.

> *'... I became interested in completing my course because I have some people who are also visually impaired and they are teachers and some are big men so I became interested and I want to also become like them.'* **(A verbatim response from Student N).**

'I have interest in teaching to impact knowledge to people where they will also know that being blind is not just being on the street begging but we can also work, do something, we have something to offer to society so I have to develop my interest in teaching where I can also share my experience with people.'

(A verbatim response from Student J).

From the excerpts above, it could be realised that participants' interest in completing their courses of study motivated them to study hard in the University. Others indicated that they were interested in the teaching profession in order to impart knowledge to the younger generation and hence they had the motivation to complete their courses of study. Almog (2011) and Anderson (1985) indicated that interest in gaining higher education for personal development is one of the internal forces that mark a positive influence on students' achievement and persistence. Thus participants' interest in completing their courses of study sustained their persistence in their academic pursuit in spite of the challenges they encounter.

Belief in your Capacity

The most significant motivation factor for students with visual impairment expressed was the belief in their capacity to succeed. These were comments made by students regarding this:

'Maybe what inspires me sometimes to move on with my studies is the fact that we have quite a number of people having themselves in the same situation who have not been able to get this opportunity, who have not been able to make it up to this time. So with that I always have

that kind of belief in myself that at least I can do something and it pushes me sometimes to move on with what I should do.'

(A verbatim response from Student C).

'Going on with my courses, I have the hope and the belief that I can make it to the teacher that I want to so I am always encouraged by that and I do everything possible because I feel that those who did it being them persons with visual impairment or not they were not better than me. I'm capable as they are so I can make it.'

(A verbatim response from Student D).

'Thinking that disability is not inability keeps you going, and motivates you enough to succeed.' **(A verbatim response from Student I).**

Participants indicated that disability is not inability and so their disability could not prevent them from achieving their dreams in life as expressed in the excerpts above. They expressed hope and belief that they can equally make it like their sighted peers and so they are motivated by this belief. This is consistent with the findings of Opini (2012) who found out that in spite of the challenges female students with disabilities encountered, they persisted in higher education. She reported that many of her study participants believed that disability is not inability and so they persisted in their studies in the face of the numerous challenges they encountered.

Desires and Aspirations

It was realised from the data that participants' desires and aspirations also motivated them in the pursuit of their career in the University. These were expressions from the students regarding this:

'My desires and aspirations have always been that one day I should live a self-reliant living. That is a living where I will not get up parading on the street hoping for somebody to give me something. That I will be able to competently take care of my family and my extended family and also help others in society have always been my zeal.'

(A verbatim response from Student P).

'My desire is to be an international kind of fellow makes me go ahead to study French as I am studying so always, I am guided by my aim to learn hard and apart from the international arena, my aspirations as a teacher should materialise so I do everything possible to realise my aim or my ambition.' **(A verbatim response from Student D).**

The excerpts above express how participants' desires and aspirations motivate them to learn. It was realised that participants had desire in living an independent or self-reliant life having the capacity to sustain themselves and their families and also their aspired professions should materialise. This is consistent with a report by Laron (2005) who noted that the higher the levels of education of people with disabilities, the better their chances to integrate into society and employment so that they can sustain themselves financially with dignity.

Support for the Theoretical Framework

The various views points expressed by the students support theoretical and conceptual framework adopted for of the study. The theoretical framework was based on Bandura's Self-efficacy Theory of motivation. According to the theory, our ability to attain a particular goal is based on our belief of whether or not we can achieve that goal. It emphasises an individual's belief in himself to

succeed in a task. It is realised from the data that participants' belief in their capacity to succeed was a driving force behind their persistence in the University despite the challenges they recounted. Bandura indicated that there are four ways self-efficacy can be increased; enactive mastery, which is gaining relevant experience with the task. The excerpts below express this:

> *'I am motivated because I feel that other visually impaired students have struggled with these challenges but they are not in high institutions. It means that since I started from childhood I've been facing challenges but I've managed to climb the ladder up to this level and I believe that ... I will be able to go through ... and I will become a useful person in society.'* **(A verbatim response from Student G).**
>
> *'..... if I've been able to get grades compared to that of sighted counterparts, I've performed equally or even better than some of them why not go further to pursue my career and get what I want to be in future.'* **(A verbatim response from Student J).**

It can be inferred from the statements above that though the participants encountered challenges in their basic and secondary education, they managed to make it to a higher level and that gave them the hope that they will be able to succeed in their academic work in the University. This highlights the first element of the Self-efficacy Theory.

The second element Bandura mentioned was vicarious modelling which means that an individual becomes more confident that he can succeed because he sees someone else perform the task. The excerpts below highlight this:

> *'There are some people with physical challenges who are also living well in this country so they've come high or come pass this status of*

education so those are my aspirations that I also aspire high and also will become a self-sufficient person.'

(A verbatim response from Student F).

'We have in our own country a visually impaired person becoming a minister. We have so many visually impaired persons who are lecturers, who are teachers, who are directors, they are doing well in their fields and so it motivates me that as a visually impaired person all is not doom. One day I will also get there.'

(A verbatim response from Student P).

The second element of Bandura's Self-efficacy Theory is also highlighted here. Thus participants indicated that people like them have gone ahead of them and they are making it in life and so they look to those individuals and they are motivated to study in spite of the challenges that may come their way.

The third element Bandura discussed was verbal persuasion. This means that people become confident because someone convinces them that they have the skills necessary to be successful. This also finds expression in the data gathered. Participants indicated that the encouragement they get from family members, colleague students and lecturers motivated them to persist in their academic work in the University. This is evident in the extracts below.

'People with sight inspire you not to limit yourself to one place but to try and make yourself go higher in future. That's advices that people give and maybe others have being in that situation before and they have been able to make it so why can't I make it too.'

(A verbatim response from Student J)

'Really with my family, they are people who always encourage me to work harder and I too looking at what I can do and looking at what other people say, try to do something better to improve my education.'

(A verbatim response from Student C).

The last element mentioned by Bandura was arousal. This means that the individual gets 'psyched up' and trust in their own capabilities to succeed in a task. Thus an individual conditions his mind that no matter what, he must succeed in the task and that motivates such an individual to be successful in the task. The comments below emphasize this.

'I think I'm psychologically motivated. My desire to be a great person in future, my desire to be recognized in society in future and my desires to contribute effectively to society serve as sources of motivation.'

(A verbatim response from Student A).

'Looking at the attitude of the society towards persons with visual impairment sometimes makes me have that urge that I should push on to make a difference, to change people's perception not to think the same about us so basically these are the two major things that inspire me to move on with my education, to move higher.'

(A verbatim response from Student C).

These excerpts above indicate that the participants psyched themselves and that was their motivation to move on. The data gathered provide evidence to support the conceptual framework which is based on the Self-efficacy Theory. Though the participants have impairment and their impairment creates challenges for them in their education, their belief in their capacity to succeed motivated them to press on to success in spite of the numerous challenges. The

conceptual framework for the study has been labelled Disability Self-Efficacy Model (see figure 1).

Disability Self-efficacy Model

The data gathered indicate that though the students with visual impairments go through challenges in the University. Their belief in their capacity to succeed, verbal persuasion from other people, having gone through the various levels of education to this level and the fact that other visually impaired persons have gone through this level to make it in life, motivated them to study hard in the University in spite of the challenges. It is this motivation that enables them to succeed in their academics. The semester by semester success they chalk also increases their self-efficacy and hence their motivation to do more to succeed subsequently. Thus success is cumulative. Again, the situation they find themselves in motivate them to learn so that they can achieve their desires and aspirations of leading a self-reliant life which also influences how much belief they have in themselves to succeed and eventually leading to their success. That success in turn motivates them to trust in their abilities subsequently and hence increases their self-efficacy.

This model therefore suggests that, people with disability can achieve success in education in spite of the challenges they encounter. However, their success is contingent on how much belief they have in their capacity to succeed which influences their motivation to study and their overall outcome in terms of their academic performance. The more the students' belief in their capacity to succeed the higher their motivation and the higher their chances of success. On the other hand, some people with disability are motivated to study in spite of the challenges they encounter and this determines their self-efficacy and

hence their chances of success. It is hoped that this model would be tested in different contexts to establish the authenticity of its claims.

Sub-Theme 2 – Extrinsic Motivation

I was interested in finding out how some extrinsic factors found in the literature and others that were not found in literature motivated the students with visual impairment in the University. From the data, it was realised that grades, praise from peers, family and lecturers, desire for gainful employment and opportunity for career development, family support and facilities in the University motivated them to pursue their academic work in spite of the challenges they communicated. The extract below summarises how students' grades motivated them to persist in their academic work in the University.

'With grades I think whether good or not they motivate you in the sense that let me start with good grades or positive. When you come and see the grades so good you are motivated to push harder. And then if you come and the results are not so good, even though sometimes you feel disappointed and tell yourself that you have to rise above and do better so that the next time you come to see something better.'

(A verbatim response from Student I).

The above comment summarises the participants view on how grades motivate them. Academic performance was a source of motivation in that if they performed better, they were motivated to do best. On the other hand if their results were not good, they motivated themselves to work harder so that they will perform better in subsequent times.

On praise from peers, lecturers and family, this is how one of the participants commented:

'Oh yeah of course once you do something and you are appreciated, you are praised, you are challenged. I mean you are praised, you are commended you become internally satisfied, you become internally motivated and of course you feel that people recognise what you are doing and that also give you the feedback that you are doing something good and force you. You are motivated intrinsically to do your best.'

(A verbatim response from Student A).

From the extract above, it is shown that participants indicated that naturally if one does something and he or she is appreciated, they get the motivation to do more next time. For that reason, the appreciation in the form of praise they get from their lecturers, friends and family members was a source of motivation to them which enabled them to continue their academic work in the University.

Opportunity for Career Development and Gainful Employment

Tertiary education is an opportunity for people to develop their career and also equip them with the right employable knowledge and skills. Participants expressed that their study in the University was an opportunity to develop their career and also to train themselves with the right skills for the job market. Below are some of the comments students made:

'The only way I can be employed is to study to the highest level. It is your certificate that will send you to places or that will earn you an employment so it is something that motivates you to study. That is the spirit keeping me in school so that in future I will also be somebody and will not be depending on people because I don't think I can depend on people. Those people that you are depending on it will come to a time

they might be fed-up or they will not be by you and continue to give you that kind of support so you also have to do something that will earn you employment so that you can also take care of yourself.'

(A verbatim response from Student J).

'To be gainfully employed you have to communicate trust to employers so by that you have to get some nice grades, some nice class to tell them that you are this so you look at the gainful employment you want to have, and you tell yourself let me study hard for it. So this motivates me.' **(A verbatim response from Student M).**

From the extracts above, it can be said that participants saw their university education as a means of advancing their career and so they were motivated. Again, their desire to be gainfully employed motivated them because they needed to communicate competence to their employers and hence there was the need for them to excel academically which is sometimes taken as the index of competence on the job market. This is in agreement with the suggestion by Celikoz (2010) that the most effective extrinsic motivation is the probability of finding a job. Thus participants' desire to be gainfully employed was a source of motivation for them.

Family Support

Family support was another significant extrinsic factor expressed by participants as motivating them to continue their academic work in the University. The following are summary of participants' expression on family support as a motivation factor for them:

'Family support comes in many ways in financial and this motivation all comes together. Financial support from the family enables me to

continue my studies. With the financial support I'm able to pay my school fees, get my learning materials and those enable me to stay in school and with the motivation it keeps my spirit and that enables me to stay in school.' **(A verbatim response from Student J).**

'Family support "yes" because to whom much is given much is expected and it will be very encouraging when you are going to school and your family recognizes that this person is trying, one day he will be an icon in our family and supports you and so when you come to school you know that oh I'm working hard. I can't afford to go back to tell my family that I did not do well and unfortunately in my case its only my mother so I just don't want to. My mother is almost 60 years old and I can't afford to let the old lady's effort go in vain. So it is very crucial.'

(A verbatim response from Student P).

'Family support motivates me because as at now because I am the only one who has now gotten to the university they support me and my brother always tells me that even my last pesewa I will use it to take care of you because you have made us proud. I tell myself that I will never disappoint these people, I have to get to where I want to go.'

(A verbatim response from Student N).

Family support was found to be a crucial factor that motivated the students with visual impairment in their studies in the University. Apart from the fact that their needs are provided by their families it can be inferred from the extracts that the participants saw family support as a huge investment in them which they could not allow to go wasted and so they were motivated to do their best. Family support was in the form of material and financial

assistance provided and also the encouragement from their families which motivated them to do more in spite of the challenges. This finding is consistent with that of Almog (2011) who noted that family support in the form of moral support and practical support was one critical factor that motivated students with visual impairments in their education.

Facilities in the University

Participants indicated that facilities in the University really motivated them to study. This is because these facilities provided in the University for all students in general and those provided for the students with visual impairment in particular facilitated their academic work in the University. The following comments highlight what some students expressed:

'Facilities, they motivate because I think coming to this university the facilities available enable me to carry my learning successfully, I will have my peace of mind to concentrate on my studies with the facilities available like those braille machines, the embossers, I am rest assured of getting leaning materials.' **(A verbatim response from Student J).**

'They motivate you in that you know if you have something to study with, let's say you are in need of a book or there is hand-out and there is the facility to help braille it for you, you will be motivated to study. And there's an ICT centre where you can go and access information you are motivated to study.' **(A verbatim response from Student I).**

It is realised from the above excerpts that participants indicated that facilities in the University motivated them to study hard. This is because those facilities such as embossers, resource centre and other materials which they needed for their studies are provided in the University and these served as

motivation to them. This corroborates a statement by Yungungu and Ogolla (2014) that if given the tools and support to receive education and gain useful skills, the visually impaired persons can live fully realised life and become very productive members of society.

Sub-Theme 3 – Altruistic Motivation

A third set of motivation factors which neither fell under intrinsic nor extrinsic factors were expressed by some participants. I have termed these as altruistic motivation. Altruistic motivation has to do with factors that serve the interest of other people and society in general rather than those that satisfy an individual himself. Evidence from the data suggests that some of the study participants were motivated altruistically. Thus they saw the need to contribute their quota to individuals and the society at large. Some of them expressed concerns about the mass failure in nation-wide examinations such as the Basic Education Certificate Examination (BECE) and the West Africa Secondary School Examination (WASSCE) which had become a source of worry to them and so they are pursuing their programmes so that they could go and help salvage the situation. Comments from some participants highlight this:

'... where I come from students do not always do well because of lack of competent teachers …… So it's a motivation that one day I will join hands together with the teachers in Ghana, make a better world where citizens will always pass their exams and move to the next level.'

(A verbatim response from Student F).

'... at the end of WASSCE or BECE we normally account low level of those who excel, for those who will pass and so what motivated me is to run an education programme so that after my education programme I

will agree to go to any rural community where they need the services of teachers and I will also contribute my quota to the development of Ghana.' **(A verbatim response from Student P).**

It is realised from the expressions above that the respondents were not concerned about what will satisfy or meet their individual personal needs, rather the welfare of Ghanaian students and the development of Ghana in general. This is a true sense of altruism which participants claimed motivated them and hence have been termed altruistic motivation.

Theme 3 – Research Question 3 – How can the Students with Visual Impairment be Supported to Achieve their Best in UCC?

The last research question was on how the students with visual impairments can be supported to achieve their best in UCC. The following were the themes on which interview data were collected:

Sub-Theme 1 – Physical/Environmental Support

Evidence from the data suggests that physical/environmental factors contribute significantly towards the academic development of the participants and their overall stay in the University. These were the various comments made by some students:

'Well I think some open gutters can be covered and some of the things that serve as obstacles … In my hall there are some pot holes I think can be covered. Where they have to erect some rails maybe like a continuous path you just erect the rails there so that when the person is going he just touches it and follows it.'

(A verbatim response from Student O).

'We want the physical environment mobility friendly where there are ramps and rolling stairs provided for all persons with disability. The way people park their cars in offices and in departments is very important, if you park your car in road or in a way where this visually impaired person will knock it, that is obviously not good. Sometimes if you know your environment it is the society that creates the disability and not the environment. So they should always make sure that they park the cars very well so that we can always move freely.'

(A verbatim response from Student M).

'…… The structures put up in the institution need to be constructed to be friendly to persons with disability so that we can move freely to wherever we go. Though we have structures we are calling on the authorities to reconstruct certain areas that will be friendly to us ….'

(A verbatim response from Student K).

From the excerpts above, it can be seen that if the environment is structured well to accommodate students with disabilities, the students with visual impairment will live as independently as possible and thereby reducing the impact of their disability. They suggested that all the open gutters should be covered, poles and other obstacles must be removed from pavements and walkways and cars should be parked at appropriate places so that their movements would be relatively easier for them.

They also indicated that rails should be provided to aid their movements, and ramps and rolling stairs should be used in buildings instead of the staircases. These provisions would enhance their movements in the University. These findings support earlier findings. Shaw (2000) indicated that

although there is little that staff in higher education can do to change the facts of students' impairments, there may be scope for altering the environment of higher education which may be disabling. The Social Model of disability is stressed here, that, it is society that creates disability and not the impairment.

Arnold, Hammond, and Clayton (2009) stated that a lot of visually impaired people are now seeking and gaining admissions to universities and so there is the need to upgrade the infrastructural amenities in the universities to the standard stipulated in international guidelines in order to cater for all students especially the disabled. Shaw (2000) also pointed out that it is simplistic to attribute problems about disability to individuals who are said to have this or that disability, when the reality is many such problems disappear when the environments are accessible. It is therefore incumbent on the University to put in measures to ensure that the physical environment becomes accessible to students with disability so that they can be integrated fully into the University and thereby enhancing their academic performance and their overall stay in the University.

Sub-Theme 2 – Support from the Institution and Government

With support from the institution and government, the following extracts highlight what participants had to say:

> *'The lecturers should be well oriented … so that when we go for lectures they can handle us well. I wish that our materials are embossed ahead of time so that we also have these materials early to study so that we will be able to compete with the sighted.'*
>
> **(A verbatim response from Student B).**

'I think disability policies on campus should be implemented because it will not benefit us alone but it will also benefit others on campus. This will also encourage persons with disability who are willing to come and study here.' **A verbatim response from (Student K).**

The excerpts above indicate that students expect the institution to put in measures to give orientation to lecturers on the needs of students with disabilities so that they can modify their teaching methodologies to cater for the needs of such students. UNESCO (1997) found out that awareness campaigns should be used to improve attitudes at universities especially, arranging staff training to develop teaching skills of lecturers and supervisors. In support of this Saksena and Sharma (2015) indicated that students with disability present a challenge to the higher education system, which if taken up, could represent a significant improvement in practice for not just the students with disability, but for all students in general. Thus the provisions that will be made in this area will have rippling effects on other students too and attract other persons with visual impairment to come to the University.

In terms of accommodation the excerpts below were expressed by students.

'We humbly plead that they reduce the number to two in a room. So you and your assistant in the room so that there will be free movement.'

(A verbatim response from Student B).

'I will be happy if they could make sure that the policy they put that one visually impaired plus one sighted colleague in a room could be implemented. We occupy a lot of space because of the size of our books

and others …… So if that policy could be implemented it would help us.' **(A verbatim response from Student H).**

The extracts above indicate that students expect to be paired with a sighted peer in a room instead of the recent accommodation system where the number of students per room is either three or even more. This calls for the full implementation of the University's disability policy which makes provision for this.

In terms of transportation, participants called for the sensitization of the shuttle drivers about the policy provision made for them so that the drivers will be aware and comply. One of the participants summarised the views of all the others in the extract below.

'The drivers should be well oriented or educated that we have that privilege of boarding the car free. Because most of the time when you are going to board the shuttles, you are being victimized or terrified by the drivers. They talk to you anyhow so I wish that the drivers are well advised so that whenever we go for the buses we are well handled.'

(A verbatim response from Student B).

UNESCO (2009) suggested measures that should be taken to redress the challenges confronting the students with visual impairment in tertiary institutions including; teacher training and orientation, classroom support where needed, accessible textbooks, teaching and learning materials, and physical accessibility throughout the campus. The findings of this study support that of UNESCO in terms of the University enhancing policies in these areas.

On the part of the government, evidence from the data analysed revealed several areas where participants expected government to support them. These were the concerns of students on this:

'... if the government can assist us with personal computers it will go a long way to aid our learning and it will even reduce the cost of buying braille sheets ... . With ... the computer you read the softcopy so if we are able to get these, maybe it will go a long way to help us. The financial system I think it will be good if the government can assist us in any way because some of us find it very difficult to really in getting finance to buy some basic things like books and others. So if they could help us with some kind of extra funding, it will go a long way to help. And maybe if they could assist brilliant students ... with some kind of scholarship, it would go a long way to encourage others to do more in their studies.' **(A verbatim response from Student C).**

'Some of us find it very difficult to pay our school fees so I think the government should give us scholarships. Though we have disability allowance but that one is not enough and it comes ones in a year. We need brail sheets or brail equipment that will enable us to le..arn to achieve something at the end. **(A verbatim response from Student K).**

From the extracts above participants expressed their need for financial assistance from the government. Not only that but also the provision of technological equipment like embossers, and personal laptops, provision of brail papers and also the institution of scholarship scheme for the students with visual impairment who are needy. This supports a suggestion made by UNESCO (2009) that governments should provide scholarship for students

with disabilities to attend the universities. It also corroborates the findings of Fatima et al (2014) that scholarships should be awarded to deserving students with visual impairment. Opini (2012) summarised these by pointing out that students with disabilities incur additional disability related expenses in their pursuit of higher education compared to non-disabled students. She suggested that the Ministry of Education should take into account these additional costs and consider providing additional funding to enable these students to meet their educational expenses with lesser strain.

Sub-Theme 3 – Technology and Assistive Devices

With technological and assistive devices, findings from the data suggest that participants called for the provision of these devices to enhance their academic pursuit in the University. The extracts below highlight what participants had to say.

'We need personal laptops. Individuals should have laptops so that we will be inquisitive to operate it in our learning. Then recorders which can help you record and listen. More of the braille machines should be accessible, they should be many. With embossers they are not in good shape, they breakdown all the time so they should bring in more to support those that are already in existence. There should be a braille photocopier.' **(A verbatim response from Student E).**

'The university should provide us with the recorders so that if the one they gave me get spoilt and the second year I am given another one, I will continue with my academic work. If they can provide us with more of the technological devices, the machines used in brailing our books it will facilitate our learning. The university can support us by providing

some laptops so that the little we come here to learn we can always use that to be practising during our leisure time.'

(A verbatim response from Student G).

Participants indicated that if adequate and functional technological and assistive devices are provided for students with visual impairment, it will enhance their academic work in the University. If these devices are provided, the impact of their disability would not be felt since the availability and improvement of assistive technology can change environments to a significant degree, increasing the accommodations for students with visual impairments by adding to the number of options available to them (Scott, 2009). Also, Fatima et al (2014) stated that JAWS software should be installed in all computers of the university and at all study centres as well. They argued that laptops with JAWS software should be provided to deserving students with visual impairment for taking lecture notes and doing all of their academic work independently. The finding of this current study is therefore consistent with earlier researches.

Sub-Theme 4 – Support from Colleague Students

As long as life in the university remains individualised, life for students with visual impairment on campus can be very challenging if they do not get assistance from their colleague sighted students. The assistance they expect from colleague sighted students are summarised in the following extracts.

'Assisting us especially in reading materials for us to record and then of course sometimes they can assist you to go to certain areas.'

(A verbatim response from Student A).

'... in all aspects we always need help. If colleague students could always help us in getting access to our lecture theatres, our halls and helping us in reading some of the hardcopy hand-outs for us it will help us a lot.' **(A verbatim response from Student C).**

'For the students if they don't isolate from us we will also feel that we are part of our sighted colleagues and for that matter academically we will excel.' **(A verbatim response from Student Q).**

From the extracts above, it could be realised that participants expect their colleague sighted peers to assist them in reading, movement to and from lectures and their colleagues accepting the students with visual impairment as part of them. This corroborates the findings by Scott (2009) that diversity awareness of their peers was the most important aspect of getting collegial support and building lifetime relationships among visually impaired students. It also supports the assertion by Gilson and Dymond (2012) that training offered on disability topics for a wide audience at higher education institutions benefits everyone and is a vital component of addressing attitudinal barriers related to disability. Therefore, UNESCO (1997) called for awareness campaigns to improve attitudes at universities. Improving social-emotional competences not only have a positive impact on interpersonal skills and the quality of interactions learners establish, but also on their academic achievement (Noel et al, 2006). It can therefore be indicated that awareness creation and sensitisation of sighted students can reduce if not eliminating attitudinal barriers among university students without disabilities.

Sub-Theme 5 – Support from Lecturers

With support from lecturers, participants mentioned a wide range of areas which together contribute to their academic success. Below are some excerpts which express what participants had to say.

'Well I think lecturers they should probably make their notes readily available because it's the same notes that they dictate for the seeing colleagues to write but I don't probably see the problem with them giving us the softcopy so that it can easily be embossed. They should also give equal measures to our papers…… so that they will not get missing. Sometimes the lecturer can take off some of his ... schedules to organise tutorials for us so that we can get it.'

(A verbatim response from Student P).

'Lecturers really, helping us with the necessary materials. That's giving us the necessary materials will help us and then also some of them have the problem of always writing on the board if they could just, as you write you try to read it for us it will help us a lot, contribute to our studies.' **(A verbatim response from Student C).**

The above expressions from participants indicate that they expected their lecturers to make the softcopies of their lecture notes available to them. Also lecturers should organise tutorials for the students with visual impairment to help them understand their lectures better. Again, participants indicated that lecturers should follow up on their papers to mark so that they will not have incomplete assessments. Lecturers should again try and read what they write on the board so that the students with visual impairment will also benefit. This corroborates the findings by Human (2010) who noted that the use of pre-

recorded study materials is a good way for learners with visual impairments to learn.

Sub-Theme 6 – Support from Non-Governmental Organisations

Evidence from the data gathered highlights that participants expect non-governmental organisations to assist in their educational pursuit in the University. The extracts below highlight this:

> *'NGOs can provide learning materials, scholarship, computers and assistive technology. We know technologies that are out there for persons with visual impairment, they can help acquire some of these resources for persons with visual impairment.'*
>
> **(A verbatim response from Student A).**

> *'Non-governmental organisations if they could come to our aid by … equipping our labs … helping us to get more of our recorders and then maybe assisting some of our very brilliant students with some scholarship … it will go a long way to help us, yeah.'*
>
> **(A verbatim response from Student C).**

The role of non-governmental organisations is indispensable in contemporary society. These organisations usually support the poor, the needy and the marginalised in society in both cash and kind. It is about time these organisations extend their charity to the students with disabilities in the universities so that such students can be supported enough in terms of materials and finances to achieve their best in the universities.

Sub-Theme 7 – Support from Family

Every individual is born into a family and the supports they receive from their families have a high correlation with who an individual becomes in

future. Since education has become expensive in contemporary society, how much support a student receives from the family can influence the height of education to which he can go. The following excerpt summarises participants' views on support from the family.

> *'Oh we expect our families to be supportive emotionally, financially, spiritually. In fact any other means if that will facilitate our engagement with our academic work. We expect a lot from our families and they are the first point of call.'*
>
> **(A verbatim response from Student A).**

The extract above summarises participants' view on how they expect their families to support them. The support expressed here can be categorised as tangible and intangible. The tangible involve financial assistance, learning materials, food and clothing. The intangible involve the encouragement and praise which motivate them in their studies. Participants expressed that their families should support them in these areas so that they can achieve their best in the University.

Sub-Theme 8 – Financial Support

Though education has become accessible to many people with disability in contemporary times, the high cost of education still delineate people with disability from accessing education especially at the higher level. For students with disabilities, financial assistance will be highly motivating not only for those enrolled but also those aspiring to get higher education certificates. The following are extracts of how participants expressed how they can be supported financially.

'I think if the government or any other institution can take that burden of paying part of our fees, it will ... help most of us.'

(A verbatim response from Student C).

'... We are part of the SRC so they can play a part in the financial assistance and then if they cannot directly assist they can also consult certain NGOs or other donor partners so that they could help in that direction. I think the government too can come in.'

(A verbatim response from Student D).

'There should be a financial opportunity created through SRC or through the Dean of Students so that it will be open to people with disability. There should be something like sensitisation to the public because there are a lot of philanthropists, organisations, NGOs and others so the school should ... get them informed, work with them so that they can always come and give support in terms of academic materials and living in general.'

(A verbatim response from Student E).

From the extracts above it is realised that participants expected government and non-governmental organisations as well as the University to support them financially. This was expressed in terms of the institution of scholarship scheme or the payment of fees for them so that their academic work in the University would be smooth. Brewster (2014) suggested that there is evidence to suggest that students who are in receipt of Disabled Students' Allowance do better on their university courses than those who are not. The participants' appeal to government and other institutions is in line with the recommendation by UNESCO (2009) that governments and universities should

provide scholarship for students with disabilities to attend the universities. It also corroborate with that of Fatima et al (2014) that scholarships should be awarded to deserving students with visual impairment. If these provisions are made, they would enhance the overall stay of these students on campus and their academic work in particular.

Sub-Theme 9 – Academic Support

In terms of academic support the excerpts below illustrate how participants expressed their need.

'... The university could come out with a policy of helping us with braille sheets for our hand-outs ……. If they could also provide us with more of the computers and then efficient access to the internet it would help us in maybe our research works and others and if they could also help us with an embosser... to braille the hand-outs.'

(A verbatim response from Student C).

'... The various halls give exercise books. I think this can be converted into braille papers for the visually impaired students or the university as a whole should provide materials for these needs. Apart from that when you go to the library here we have books that are written in print that means the visually impaired students only pay for the library and have no access to those books over there which is a cheat. I think if those books are kept in braille it will enhance our studies. Sometimes you are asked to make research and you may not even get someone to assist you in doing that but when those books are kept in braille it will make it very easy for us to make our research without any problem.'

(A verbatim response from Student H).

The extracts above summarised the participants' comments about how they can be supported academically. They suggested that the University should supply them with braille papers not only for writing their exams and assignments but also for their notes. It was also suggested that the library books should be kept in braille to make them accessible to the students with visual impairment.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study focused on finding out the challenges students with visual impairment in UCC encounter and the factors that motivate them to complete their course. Three main research questions guided the study. The study was a qualitative study with case study as its main design. A total of 20 participants consisting of 16 males and 4 females were sampled for the study. The census approach was used in selecting the participants. A semi-structured interview guide consisting of fifteen items covering challenges, motivation and support for the students with disability in higher education was used to collect data for this study. Thematic analysis was used in the analysis of data in this study. The main findings of the study revealed that:

1. Students with visual impairments encountered lots of challenges in their academic pursuit in the University. The major challenges identified include physical/environmental, financial, attitudinal, academic and challenges with technological and assistive devices.
2. Three main factors motivated students with visual impairments in their academic pursuit in the University. These are intrinsic factors, extrinsic factors and altruistic factors. Among the intrinsic factors were their interest, their belief in the capacity to succeed, and their desires and aspirations. The extrinsic factors identified included grades, praise from peers, lecturers and family, opportunity for career development and desire for gainful employment, family support and facilities in the University. Altruistically, the study found the need for participants to

contribute their quota towards education by helping students pass their exams and to contribute to the development of society in general were motivating factors.

3. On how to support students with visual impairments, the results revealed the following:
   a. The students needed support from the University in terms of restructuring the physical environment, accommodation, transportation and academic policies. They also needed support from sighted students to facilitate reading and mobility. Furthermore students with visual impairment needed support from lecturers to help them access course materials in accessible formats, permit them to record their lectures and reading aloud what they write on the board.
   b. The students also needed financial assistance, scholarship schemes, and provision of technological and assistive devices to enhance their academic work in the University from government and non-governmental organisations. The study also revealed that family support was a critical factor in the academic pursuit of students with visual impairments in UCC.

Conclusions

The study concluded that students with visual impairments encounter a lot of challenges in pursuit of the academic work in UCC. In addition, the study also concluded that many factors served as motivation for students with visual impairments in UCC. Among these are their interest and belief that they can succeed. Finally, the study concluded that students with visual impairments can

be supported in various ways such as environmental restructuring, financial support from the institution and government, academic, technology and assistive devices and support from colleagues non-visually impaired students and lecturers.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. The University must make sure to consider all those factors that create challenges for students with visual impairments such as lecture halls, halls of residence, and developmental buildings are remedied.
2. The University must find ways of both extrinsically and intrinsically to motivate students with visual impairments in order to enable them succeed and complete their studies.
3. Finally, the University authorities need to find means of supporting students with visual impairments to minimise the challenges they face in studying in the University.

Suggestions for Further Studies

1. Anyone who wishes to study the experiences of the students with visual impairment in higher education should consider the effects of challenges on the students' academic performance.
2. Also the study should be extended to other universities in the country in order to increase its generalizability.

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APPENDIX A

Main Interview Guide

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

INTERVIEW GUIDE

I am a final year M.Phil. (Special Education) student of the University of Cape Coast. I should be very grateful if you would participate in this study by responding to these questions. The study aims at investigating the challenges of the visually impaired students in the University of Cape Coast and the factors that motivate them in the pursuit of their career in the university. Agreeing to participate will imply that you have agreed to grant a personal interview with the researcher. This study is purely for academic work and information provided will be treated with the utmost confidentiality and anonymity. Participating in this study is voluntary and you have the freedom to exit anytime you want to do so. Please will you like to participate in the study?

Yes { } No { }

Thank you very much.

PART I – DEMOGRAPHIC DATA

Gender: ……..	Age range: Below 20 years [ ] 21-25 [ ] 26-30 [ ] 31-35 [ ] 36-40 [ ] Above 40 years [ ]
Type of visual impairment (low vision/blindness) ……	Any other disability condition …….
Highest academic qualification ……	Current level in UCC ……
Programme of study ……	Duration of programme ……
Faculty/Department ……	Education status of parent/guardian ……..
Occupation of parent/guardian ……	Employment status of parent/guardian ……

PART II – Challenges you encounter in UCC as a visually impaired student

1. Why did you decide to study in UCC?
2. What informed your choice of programme of study?
3. How did your impairment inform your choice of programme of study?
4. What are the institutional policies for students with disability in UCC?

5. How do institutional policies act as barriers or enablers in meeting your academic pursuit in the university?
6. What challenges do you encounter in terms of the following?

i. Orientation, mobility and accommodation
ii. Academic
iii. Technology and assistive devices
iv. Attitudes of lecturers and colleague students
v. Finances

PART III – Factors that motivate the visually impaired students in UCC

7. How do the following factors motivate you to complete your course the university?
   - **Intrinsic Factors**
     - interest
     - belief in your capacity to succeed
     - desires
     - aspirations
   - **Extrinsic Factors**
     - grades,
     - praise from peers, family and lecturers
     - gainful employment
     - opportunity for career development
     - family support
     - facilities in the university
8. What other factors motivate you in your academic pursuit in the university?

PART IV - How the visually impaired students can be supported to achieve their best in UCC

9. How do you think the physical environment should be in order for you to achieve your best in the university?
10. What policies must be put in place to support your studies in the university?
11. How do you expect the government to assist in meeting your academic development in the university?
12. How do you think you can be supported financially in the university?
13. How do you think the following groups can assist in meeting your academic needs in the university?

- Lecturers
- Students
- Family
- Non-governmental organisations

14. How do you think you can be supported in terms of technology and assistive devices to achieve your best in the university?
15. Any other comment?

Thank you.

APPENDIX B

Interview Guide for Pilot Study

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

MASTER'S THESIS

Topic: *Investigation into the challenges and motivation of the visually impaired students at the University of Cape Coast to complete their programme.*

INTERVIEW

I am a final year M.Phil. (Special Education) student of the University of Cape Coast. I should be very grateful if you would participate in this study by responding to these questions. The study aims at investigating the challenges of the visually impaired students in KNUST and the factors that motivate them in the pursuit of their career in the university. Agreeing to participate will imply that you have agreed to grant a personal interview with the researcher. This study is purely for academic work and information provided will be treated with the utmost confidentiality and anonymity. Participating in this study is voluntary and you have the freedom to exit anytime you want to do so. Please will you like to participate in the study?

Yes { } No { }

Thank you very much.

PART I – DEMOGRAPHIC DATA

Gender ……	Age ……
Type of visual impairment (low vision/blindness) ……	Any other disability condition ……
Highest academic qualification ……	Current level in the KNUT ……
Programme of study ……	Duration of programme ……
Faculty/Department ……	Education status of parent/guardian ……
Occupation of parent/guardian ……	Employment status of parent/guardian ……

PART II – Challenges you encounter in KNUST as a visually impaired student

1. Why did you decide to study in KNUST?
2. What informed your choice of programme of study?
3. How did your impairment inform your choice of programme of study?
4. What are some of the institutional policies for students with disability in KNUST?

5. How will you describe such policies in meeting your career pursuit in the university?
6. What challenges do you encounter in terms of the following?

i. Orientation and accommodation
ii. Academic
iii. Technology and assistive devices
iv. Attitudes of lecturers and colleague students
v. Finances

PART III - Factors that motivate the visually impaired students in KNUST

7. Why did you decide to study in the university?
8. How do the following factors motivate you in your career pursuit in the university?
    - **Intrinsic Factors**
        - interest
        - belief
        - desires
        - aspirations
    - **Extrinsic Factors**
        - grades,
        - praise from peers and family,
        - gainful employment
        - opportunity for career development
        - family support
9. What other factors motivate you in your career pursuit in the university?

PART IV - How the visually impaired students can be supported to achieve their best in KNUST

10. How do you think the physical environment should be in order for you to achieve your best in the university?
11. What policies must be put in place to support your career pursuit in the university?
12. How do you expect the government to assist in meeting your career development in the university?
13. How do you think you can be supported financially in the university?
14. How do you think the following groups can assist in meeting your career needs in the university?
    - Lecturers
    - Students
    - Family
    - Non-governmental organisations
15. How do you think you can be supported in terms of technology and assistive devices to achieve your best in the university?
16. What factors do you think can be put in place to make your study in the university more successful?
17. How will you describe your overall experience in the university?
18. Any other comment?

Thank you.

APPENDIX C

Introductory Letter

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
DEPARTMENT OF EDUCATIONAL FOUNDATIONS

Telephone: 233-3321-32440/4 & 32480/3
Direct: 03321-36037
Fax: 03321-30184
Telex: 2552, UCC, GH.
Telegram & Cables: University, Cape Coast
Email: edufound@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:

Your Ref:

14th October, 2015

TO WHOM IT MAY CONCERNED

LETTER OF INTRODUCTION FOR THESIS WORK

We introduce to you **Mr. ISAAC NYAME** a student from the Department of Educational Foundations, of the College of Education Studies, University of Cape Coast.

He is pursuing a Masters of **PHILOSOPHY** degree in **SPECIAL EDUCATION**.

As part of the Universities requirements, he is expected to work on a thesis entitled:

INVERSTIGATIION INTO THE CHALLENGES AND MOTIVATION OF THE VISUALLY IMPAIRED STUDENTS IN THE UNIVERSITY OF CAPE COAST TO COMPLETE THEIR PROGRAMME

He has opted to make a study at your Institution/Establishment for the project. We would be most grateful if you could provide the opportunity for the study. Any information provided will be treated as strictly confidential.

Thank you.

(Dr. Prosper Deku)
HEAD

APPENDIX D

A Sample of Coded Interview

(STUDENT C)

Interviewer: Gender

Interviewee: Male

Interviewer: Age Range

Below 20 years [ ] 21-25[ ] 26-30 [ ] 31-35 [ ] 36-40 [ ] above 40 years [ ]

Interviewee: 21-25

Interviewer: Type of visual impairment (low vision/blindness)

Interviewee: Total blindness

Interviewer: Any other disability condition?

Interviewee: No

Interviewer: Highest academic qualification.

Interviewee: WASSCE

Interviewer: Current level in UCC.

Interviewee: 200

Interviewer: Programme of study.

Interviewee: B. Ed. Arts (Religion/English)

Interviewer: Duration of programme.

Interviewee: 4 years

Interviewer: Faculty/Department

Interviewee: College of Education/Department of Arts and Social Sciences and Education

Interviewer: Education status of parent/guardian

Interviewee: Educated (Graduate)

Interviewer: Occupation of parent/guardian

Interviewee: Teacher

Interviewer: Employment status of parent/guardian

Interviewee: Employed

Interviewer: Why did you decide to study in UCC?

Interviewee: I decided to study in UCC because of our standard of learning over here and also I think we have some kind of facilities as compared to other universities which we can choose from **(facilities**). They have other the facilities that can aid us a bit than some of the other integrated universities.

Interviewer: Any other reason?

Interviewee: Oh really the other reason that really motivated me was I wanted to be a teacher really and I thought coming here to get that training will be of much help to me **(to pursue education**).

Interviewer: What informed your choice of programme of study?

Interviewee: Simply because I wanted to become a teacher so I chose education (**personal desire**).

Interviewer: How did your impairment inform your choice of programme of study?

Interviewee: Ok my impairment really informed the choice of programme because I looked at what maybe if I was not impaired what I will have been able to do the options that I might have been able to take and I realise that the teaching field might be a little bit better for us, that's why.

Interviewer: Please what makes you think that the education field will better than other areas as a visually impaired person?

Interviewee: Other areas like let's take doing a programme and maybe social work or social studies maybe B/A even though I will get the knowledge I need but the right place to implement it might not be able to suit the particular situation, it may not be able to suit me very well so I felt that taking the knowledge to the classroom at least will help me exercise the knowledge I will gather and then it will help me to be better placed in terms of employment **(employment).**

Interviewer: What are the institutional policies for students with disability in UCC?

Interviewee: Institutional policies, ok really there is a policy that allows us to be in the halls for the whole of, as long as the programme will last (**accommodation)**, and the school has also had that practise of giving us recorders when we come as freshers and I think those are the majors ones I can just state now (**academic**).

Interviewer: What about in terms of assessment or when writing examinations are there some policies for you as a visually impaired student?

Interviewee: Oh the only thing is as our colleagues write in the various exam centres we write ours over here at our department, I think that's the only difference, there's no any other to say talking of assessment.

Interviewer: Do you use the same number of hours as your colleague non-vi students when writing exam?

Interviewee: Really no, normally because of the slow pace of our writing there's always a way of let me say there is a calculation of the time that will be given for the other students. So half of that time will be calculated and added to the normal time (**academic**).

Interviewer: What about in terms of transportation are there some policies you know of?

Interviewee: Yes shuttle, the school has brought a policy that allows us to board the shuttle for free (**transportation**).

Interviewer: How do institutional policies act as barriers or enablers?

Interviewee: Ok with respect to enablers the school has given recorders to us when we come and it goes a long way to help most of the students, some of us because its difficult capturing what is discussed at the lecture theatre just at a goal so when you get the song after which you go back to the hall you can sit down to play and get whatever was said very clearly (**academic policy as enabler).** And then with the shuttle too I will say yes it helps us in our movement some find it very difficult in getting finance sometimes so this policy has gone a long way to help those who are, to get to lectures on time (**transportation policy as enabler**). And the extra time in writing exam it goes it also helps really, it helps in a way because even though people who are still very slow in writing find it difficult to finish within this time but at least it's a good thing, it's a good policy that has really gone a long way to help most students (**academic policy as enabler**).

Interviewer: Accommodation too?

Interviewee: The accommodation too at least it has saved us from that the trouble of searching, looking for hostels, that stress of looking for hostel so accommodating us for the whole of the programme really goes a long way to help us in our academics (**accommodation policy as enabler**).

Interviewer: What about the other side institutional policies or are there some policies you think should be in place which are not in place now and how does it affect your academic pursuit?

Interviewee: oh really I think sometimes some of our colleagues suffer the problem of their scripts missing in the department and so on so I think if the institutions can make it possible for the various departments to develop a better structure in terms of how they handle our quiz papers, our exam, our exam sheets and assignment. Because sometimes they are presented to them but you realise that some get missing in the process and it's very hectic going through to solve the problem of an IC in this school so if they could really develop a system that could check it, at least, it will go a long way to help (**academic challenge).**

Interviewer: Is that all you want to say?

Interviewee: And then movements too if you realise that there are some places that have open gutters (**physical challenges**).

Interviewer: What challenges do you encounter in terms of the following? Physical/environmental

Interviewee: Ok really we have a challenge of so many open gutters in the school campus and then some of the halls too (**open gutters**) so we really wish if some of those gutters, at least if all could be closed for us and then you realise that in some of the halls there are staircases there which sometimes impede easy movement for instance when you go to Oguaa you realise that the staircase there are too many and if they could make it like a ramp style it could help, it could help us **(structural inaccessibility)**. And at least in some of the lecture theatres too sometimes too its difficult getting there especially I don't know what the poles on the other side of the road leading to felt, I don't really know what, the purpose they are serving but sometimes they really serve as a great worry to some of our people (**obstacles in walkways**).

Interviewer: What about in terms of accommodation what challenges do you encounter?

Interviewee: In terms of accommodation really the university came out with a policy that a person with disability should be paired in a room with one sighted person but you realise that this is not been followed and most of the halls they try to make you three or four in a room and because of this too sometimes you even send the list you try to negotiate for it and it's like the administrators of some of the halls are not always ready to help in that regard and sometimes it makes it difficult for us. It makes it difficult sometimes (**accommodation challenges**).

Interviewer: Academic challenges

Interviewee: Academics really access to relevant reference materials is one of the serious academic challenges because most of the hand-outs are supposed to be brailed for us but here is the case the cost of braille sheets it has also gone so high that most of our people are finding it difficult to afford it and so it makes it difficult because they will not have access to the document to read and prepare for what they are supposed to learn, so it makes it difficult for us (**LACK OF BRAILLE BOOKS**). And then as I said with the problems of sheets getting missing at the department it's one of the serious challenges that inhibit our academics (**scripts getting missing**).

Interviewer: Is there any other academic challenge you want to talk about?

Interviewee: In terms of academics, no.

Interviewer: Technology and Assistive Devices

Interviewee: Yes technology and assistive devices very important, really we have an ICT lab here and but unfortunately currently I just tried to take a stalk of those computers to see those working effectively right now and it's just about three or four looking at this huge number of about close to thirty visually impaired students it takes about four computers there for them, for us to use to

learn our ICT, it's so difficult so I think it will be good if we could be assisted with more (**inadequate computers**). And then if they could help us with more efficient recorders for those who may be coming, it will go a long way to help in our studies (**recorders).**

Interviewer: Are there some you know of which are not here in the university?

Interviewee: Really we've heard of some kind of I always forget the name easily but there are some which this institution does not have. So how does that serve as a challenge? It serves as a challenge because with, I know there is a machine it's like the computer you type everything in it and it makes it appear in a brail form. I think if all these things were here it would have gone a long way to help us even in the typing of our assignments and to make everything fast for us. and then others even reading if you are having enough of these machines it would have helped us a lot in our reading so that we may not have to rely so much on brail sheets which has become so costly now **(unavailability of modern technological devices).**

Interviewer: Attitudes of lecturers and colleague students what challenges do you encounter in this area?

Interviewee: Yes really attitude, sometimes you find it difficult finding your way to a particular place may be quite difficult but you realise people are moving and they may not be ready to help it makes it quite difficult sometimes because sometimes you can't imagine moving to class or something and someone passing by its quite tedious and so serious sometimes (**refusal to assist in movement)**. And then some of the lecturers too the approach sometimes to students with visual impairment is not that good because you know now we are in that kind of technological world some use the computers to read and so if you are given something in print, given something in hard copy to the other colleagues I think they should try to make it available to us in softcopy too which some of them are doing and some of them really don't do that (**refusal to give softcopy of lecture notes**). And sometimes you also realise that some lecturers feel they should not be recorded but it's also the policy of the university to allow us to record so that we can recapture what has been done but some of them do not tolerate it at all. They really don't allow some of our colleagues to record (**preventing students from recording)**. So it's also another serious thing, another challenge.

Interviewer: Financial challenges.

Interviewee: yea, financial challenges some of our people come from very actually most of them come from very poor backgrounds and so when it just difficult sometimes getting fees (**payment of fees**) to pay and even after struggling through your way maybe struggling through the district assemblies or some other cooperate bodies to help when you come to school its difficult getting something to support yourself sometimes so it makes it quite tiresome for us sometimes, yeah (**overall upkeep**).

Interviewer: So as in getting money to buy learning materials?

Interviewee: Yes learning materials it makes it difficult because if you don't have the money available you can't get the particular needed material you should buy so it prevents a lot of us from getting (**buying of learning materials**).

Interviewer: How do the following factors motivate you to complete your course in the university?

Interviewee: hmmm, maybe what inspires me sometimes to move on with my studies is the fact that we have quite a number of people having themselves in the same situation who have not been able to get this opportunity, who have not been able to make it up to this time. so with that I always have that kind of self, belief in myself that at least I can do something and it pushes me sometimes to move on with what I should do (**opportunity to study**) and looking at the behaviour of society the attitude of the society towards persons with visual impairment sometimes makes me have that urge that I should push on to make a difference, to change people's perception not to think the same about us so basically these are the two major things that inspire me to move on with my education to move higher (**attitude of society).**

Interviewer: Grades, praise from peers and family, family support, gainful employment and opportunity for career development, facilities in the University

Interviewee: really with my family they are those kind of people who always encourage me to work harder and I too looking at what I can do and looking at what other people say try to do something better to improve my education (**family support**). And then looking at the grades, ok the grades sometimes yes when we get a bit in a certain courses it pushes me in the way that maybe I did not do much in the previous one so I should work hard to get a better results next time (**grades**). So it also really motivates me to learn. And the facilities available really we don't have much facilities as maybe others may have so we always try to make something out of the difficulty because not having the material doesn't mean we shouldn't learn because whether you learn or not it's the same grading system that they are going to use for you so at least it helps us to push further even though we are limited in terms of resources we try to learn as much as we can to beat that challenge (**facilities in the university**).

Interviewer: Gainful employment and opportunity for career development?

Interviewee: ok really since my childhood I have been having the mind of becoming a teacher I don't know what inspired me but I've always felt that given back what I learnt to others will be of great help to society than maybe any other thing I may do so and I feel pursuing my education will be much best would help me get me a place in the education sector at least to impact the lives of people in the society.

Interviewer: Then praise?

Interviewee: Oh really I'm that type I don't really like praise.

Interviewer: Opportunity for career development?

Interviewee: Opportunity for career development really I feel after my first degree pursuing my education seriously would help me move on in maybe other aspects because I have been thinking of how to apart from teaching how to do other things maybe developing myself in the law field or other things yes so some of those things inspire me to work harder because definitely if you want to achieve all these things you need to learn much (**career development).**

Interviewer: What other factors motivate?

Interviewer: So far these are what I think.

Interviewer: How do you think the physical environment should be in order for you to achieve your best in the University?

Interviewee: Ok the physical environment I think the gutters around the campus should be, something should be put over them so that it will prevent people from falling in and then some of the places too if they could create some rails that could help direct our movement. For instance moving from the shuttle station to this main library, it's quite serious sometimes so if there's a way of creating some kind of rails that would guide us it will help and if the cars are always cleared from the roads it will help us because they block movement sometimes. yes some of the lecture theatres I think it will be good if they make the stairs quite, the staircase quite easy to be used because you realise that some of the lecture halls do not have those kind of sloppy staircase that we can easily and that you may be hitting your leg and may be falling and stuffs, and maybe if some rails could be created to guide us to some of the lecture theatres it will be helpful (**environmental restructuring**)

Interviewer: Policies

Interviewee: Ok I think if the university could come out with a policy of helping us with brail sheets for our hand-outs it will go a long way to help us because looking at the cost of it if they could do something about that for us it could help us (**academic policy**). Then in terms of our academics if they could also provide us with more of the computers and then efficient access to the internet it would help us in maybe our research works and others and if they could also help us with an embosser that is our machine that brails whatever we want to brail the hand-outs and others (**technology and assistive devices**). There is only one that is functioning now and the load definitely is too much so if, we have another one there but it's broken down so if they could assist us with an extra one it will go a long way to help us.

Interviewer: Any other?

Interviewee: In terms of accommodation let me say I will be happy if they could make sure that the policy they put that one visually impaired plus one sighted colleague in a room if it could be well implemented because we occupy a lot of space actually because of the size of our books and others it takes a lot of space so making us many in a room, it makes it so cloudy for us and sometimes makes it difficult for you to locate certain things so if that policy could be well implemented I think it would help us too, yeah so that's what I can say for now (**accommodation**). Transportation sometimes some of the

drivers of the shuttle they do not want to abide by that policy of free maybe giving us that service free so sometimes if you go there and you have some little confrontations it doesn't show, it doesn't give us any good response so if something could be done to make it more effective it would help (**transportation**).

Interviewer: Government

Interviewee: The government I think it would be good if the government could assist us with personal computers it will go a long way to aid our learning and it will even reduce the cost of buying brail sheets for some of our books to go and embossed. With the access of the computer you read the softcopy so if we are able to get these maybe it will go a long way to help us **(equipment and material assistance)**. The financial system I think it will be good if the government could assist us in any way because some find it very difficult to really in getting finance to buy some basic things like books and others so if they could help us with some kind of extra funding it will go a long way to help (**financial assistance**). And maybe if they could assist brilliant students or brilliant students with some kind of scholarship it would go a long way to encourage others to do more in their studies (**financial assistance).**

Interviewer: How do you think you can be supported financially in the University?

Interviewee: Financially, for me, for me I think if at least if the government or any other institution can take that burden of maybe paying part if not all but maybe part of our fees for us it will go a long way to help most of us (**payment of fees**).

Interviewer: How do you think the following groups can assist in meeting your academic needs in the University (lecturers, students, family, non-governmental organisations)?

Interviewee: Lecturers really, helping us with the necessary materials that's giving us the necessary materials will help us and then also some of them have the problem of always writing on the board if they could just, as you write you try to read it for us it will help us a lot, contribute to our studies (**lecturers**). Support from students really definitely in all aspects we always need help, if colleague students could always help us in getting access to our lecture theatres, our halls and then sometimes maybe helping us in reading some of the hardcopy hand-outs for us it will help us a lot (**students**). Family really helping us with the necessary needs that will help us to come to school and giving us the encouragement, it will really go a long way to help us (**family**). Non-governmental organisations if they could come to our aid by assisting us maybe equipping our labs for us. Maybe helping us to get more of our recorders and then maybe assisting some of our very brilliant students with some scholarship so that it will go a long way to help us, yeah (**NGOs**).

Interviewer: How do you think you can be supported in terms of technology and assistive devices to achieve your best in the University?

Interviewee: Yea as I've just said I think we can be aided in terms of technology and these things at least if they help us with more computers at our lab to help us then, quick access to the net and then maybe some personal computers that may help you to learn anywhere you are it will help us a lot (**provision of adequate computers and internet services**).

Interviewer: Any Other Comment.

Interviewer: Oh no.

Interviewer: Thank you so much.

Interviewer: Thank you so much too.

Appendix E: Coding Scheme

Main Themes	Sub-Themes	Category of Codes	Example of Response Patterns
Reasons for studying in UCC and how impairment informed the choice of programme	Reasons for studying in UCC	Desire to pursue education	I was motivated to do education so that I could be a teacher so that was why I decided to study in UCC **(Student A)**
		Change of environment	'Actually I've not been in this vicinity so I decided to change the environment from BA where I schooled; … to the Central region.' **(Student M)**.
		Facilities in UCC	'I decided to study in UCC because it's one of the universities that are integrated then I thought they would have the necessary materials to support me in my education **(Student D)**
		Prestige of UCC certificate	I heard when someone completes UCC the competition for job with other university graduates …, UCC students stand a higher chance of getting employment **(Student H)**
	Reasons for the choice of programme	Employment opportunities	'With the visually impaired most often aside education, aside teaching the other opportunities, we are limited so it's like offering education makes job quite readily available so that informed my choice of this programme.' **(Student I).**
		Personal desire	'I want to become a teacher in the future and then to also impact what I have learnt unto others.' **(Student N)**
	How impairment informed the choice of programme	Impairment did not inform choice of programme	It doesn't have a part to play. If we have our colleagues here who are not impaired, they don't have any form of impairment but they are offering the same course. So my impairment doesn't have any information on my choice of programme.' **(Student G).**
		Impairment informed choice of programme	'For my programme of study it's not a choice, I actually did not like to read B. Ed. Art. I had no option than to choose B. Ed. Art. It was not really an option … conditions compelled me

			to.'**(Student H).**
	Institutional policies	Academic	'The school has also had that practise of giving us recorders when we come as "freshers …" Normally because of the slow pace of our writing,… there is a calculation of the time that will be given for the other students. So half of that time will be calculated and added to the normal time.' **(Student C).**
		Accommodation	'Really there is a policy that allows us to be in the halls for the whole of, as long as the programme will last.' **(Student C).**
		Transportation	'With regard to transportation normally we don't pay when you use the shuttle. If you want to go to old site or from old site to the new site you don't pay.' **(Student D).**
	Physical/Environmental	Open gutters and inappropriate parking of cars	Like some of the places there are open gutters. Some of the drivers don't know the use of this our white cane. Sometimes our movement with vehicles become difficult and even with some of the roads they park vehicles anyhow **(Student J)**
		Structural inaccessibility	Talking of staircase at lecture theatres you know like when you go to "Felt," there are no elevators there so sometimes we will be having our lectures upstairs so I believe if there's something like a stampede or something like that it can affect. So they have to put some structures or elevators for us too.' **(Student L).**
		Obstacles in walkways	There are some poles that are also erected and they are supposed to also take them on the way. **(Student J)**
	Attitudes of lecturers, colleague students and drivers	Unwillingness to give lecture notes in softcopy and preventing the students from recording	The lecturers instead of given us the materials when you approach them … they are not willing to give it out. Sometimes when you intend recording the lectures you are prevented or they in a way scold us. **(Student B)**
		Lecturers writing on the board	And sometimes too they write on the marker board our sighted colleagues they will see and write but we cannot see and when you

			ask them to read to you some will read some will not. **(Student G)**
		Students refusal to assist in movement and reading	Our colleague students too in fact some of them are not friendly at all. You ask them to read something for you they will say I'm coming, I don't have time, they will give you excuses. In the end the person will not come. Even when it comes to movement sometimes you feel that they do not want to touch you because if they touch you they will also become blind. **(Student G)**
		Students shunned including them in group work	Our colleagues too sometimes shun from including us in group work **Student B**
		Drivers refusing to provide free transportation	… some of these drivers might behave very awkward towards you as if probably if they had asked for the money we cannot pay and I think it's a bit disgrace if it happens so.' **(Student O).**
	Academic, technological and assistive devices	Lack of braille books	Academics, really access to relevant reference materials is one of the serious academic challenges because most of the hand-outs are supposed to be brailed for us but here is the case the cost of braille sheets has also gone so high that most of our people are finding it difficult to afford it and so it makes it difficult **Student C**
		Scripts getting missing	… I think they don't really follow-up on our papers to mark that results in the number of ICs **Student O**
		Inappropriate seating during lectures	in the case of large classes if you go and then you do not get seat in front it makes it difficult recording **Student I**
		Inadequate embossers and braille machines	Perkin's braille …… just one or two at the centre and when it's time for us to write exams people want to use it but because of the scarcity our people are not able to use them.' **Student N**
		Inadequate computers	The computers that we have too, they are insufficient and even

			most of them are not working effectively **Student B**
		Unavailability of modern technological devices and efficient reorders	'Printer for instance, there is a machine that converts recorded materials into braille, but there is none in UCC.' **(Student B).**
	Financial	Payment of fees	I think the needs of the visually impaired are quite enormous and sometimes because of that even before you finish meeting those needs you are challenged with how to get your fees and so that makes it difficult sometimes it gets so stuck even it gets to a point that academic work will be beginning and then you are not even able to settle it.' **(Student I).**
		Buying of learning materials	… in purchasing some of our learning materials there are financial challenges. That is some of them are quite expensive especially with our braille papers and then some of our writing materials they are quite expensive. **Student I**
		Overall upkeep in the University	'Most of us are not from affluent homes you come and you have nothing to dwell on. Within a twinkle of an eye your money is finished and it's very difficult to even get your next meal. That is a challenge.' **(Student P).**
Factors motivating students with visual impairment in UCC	Intrinsic motivation	Interest	'… I became interested in completing my course because I have some people who are also visually impaired and they are teachers and some are big men so I became interested and I want to also become like them.' **(Student N).**
		Belief in capacity to succeed	'Thinking that disability is not inability keeps you going, and motivates you enough to succeed.' **(Student I).**
		Desires and aspirations	'My desire is to be an international kind of fellow makes me go ahead to study French as I am studying so always, I am guided by my aim to learn hard and apart from the international arena my aspirations as a teacher should materialise so I do everything possible to realise my aim or my ambition.' **(Student D).**

	Extrinsic motivation	Grades	With grades I think whether good or not they motivate you. **Student I**
		Praise from peers, lecturers and family members	Oh yeah of course once you do something and you are appreciated, you are challenged. You are motivated to do your best.' (**Student A).**
		Career development and gainful employment	'To be gainfully employed you have to communicate trust to employers so by that you have to get some nice grades, some nice class to tell them that you are this so you look at the gainful employment you want to have, and you tell yourself let me study hard for it. So this motivates me.' **(Student M).**
		Family support	…… My mother is almost 60 years old and I can't afford to let the old lady's effort go in vain. So it is very crucial **(Participant P).**
		Facilities in the University	Facilities, they motivate because I think coming to this university the facilities available enable me to carry my learning successfully … (**Student J)**
	Altruistic motivation	Passion for students passing their exams and for national development	'… at the end of WASSCE or BECE we normally account low level of those who will excel, for those who will pass and so what motivated me is to run an education programme so that after my education programme I will agree to go to any rural community where they need the services of teachers and I will also contribute my quota to the development of Ghana.' **(Student P).**
Support for students with visual impairment in UCC	Physical/Environmental support	Environmental restructuring	'…… The structures put up in the institution need to be constructed to be friendly to persons with disability so that we can move freely to wherever we go. Though we have structures we are calling on the authorities to reconstruct certain areas that will be friendly to us when we are going for lectures.' **(Student K).**
	The institution and government	Policy	'I think disability policies on campus should be implemented because it will not benefit us alone but it will also benefit others on campus. This will also encourage persons with disability who are willing to come and study here.' **(Student K).**

		Financial assistance from government	'Some of us find it very difficult to pay our school fees so I think the government should give us scholarships. **Student K**
		Equipment and material assistance from government	'I think the government should also have a hand in helping to provide some of these materials to enhance our studies.' **(Student H).**
	Technology and assistive devices	Provision of personal laptops	We need personal laptops **Student E**
		Provision of adequate and durable technological and assistive devices	More of the braille machines should be accessible, they should be many. They should bring in more to support those that are already in existence. There should be a braille photocopier.' **(Student E).**
	Colleague students	Reading and movement	'Assisting us especially in reading materials for us to record and then of course sometimes they can assist you to go to certain areas.' **(Student A).**
	Lecturers	Attention to students scripts, providing softcopies of lecture notes to students and organising tutorials	Well I think lecturers they should probably make their notes readily available. They should also give equal measures to our papers and to organise tutorials for us so that we can get it.' **(Student P).**
	Non-governmental organisations	Provision scholarships and technological and assistive devices	'NGOs can provide learning materials, scholarship, computers and assistive technology. **Student A.**
	Support from family	Praise, encouragement, financial and material	They should also go on with their financial support and encouragement and motivation. **Student F**

	Financial support	Payment of fees	'I think if the government or any other institution can take that burden of paying part of our fees, it will help most of us.' **(Student C).**
	Academic support	Brailed books	I think if those books are kept in braille it will enhance our studies. **Student H.**
		Supply of braille sheets	The university should come out with a policy of helping us with braille sheets for our hand-outs. **Student C.**