

**UNIVERSITY OF EDUCATION, WINNEBA**

**EXPERIENCES OF STUDENTS WITH VISUAL IMPAIRMENTS AT  
UNIVERSITY OF EDUCATION, WINNEBA IN THE CENTRAL REGION OF  
GHANA**

**NANA OPOKU ACHEAMPONG**

**2017**

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**8150150005**

**A Thesis in the Department of SPECIAL EDUCATION, Faculty of  
EDUCATIONAL STUDIES, submitted to the School of Graduate Studies,  
University of Education, Winneba, in partial fulfilment of the requirements for  
award of the Master of Philosophy (Special Education) degree.**

**MAY, 2017**

## DECLARATION

### CANDIDATE'S DECLARATION

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

SIGNATURE: .....

DATE: .....

### SUPERVISOR'S DECLARATION

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

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### CO-SUPERVISOR'S DECLARATION

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

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## **DEDICATION**

I dedicate this work to the Acheampong family of Asukawkaw and to all persons with disabilities.



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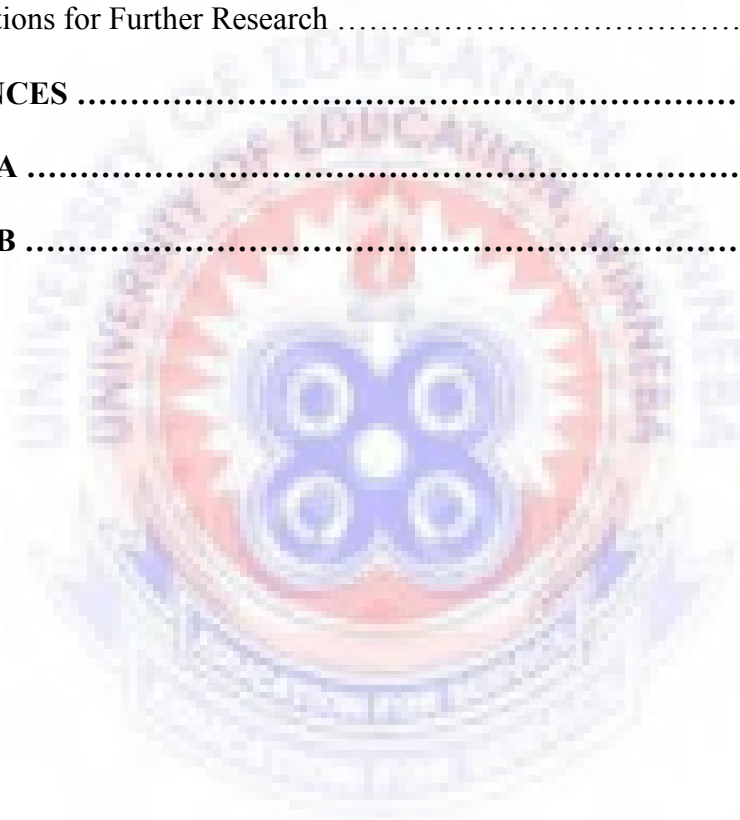
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## ABSTRACT

This phenomenological study explored experiences of students with visual impairments at the University of Education, Winneba. Thirty students with visual impairments were purposively sampled for the study. Focused group semi-structured interviews were used to collect data. Data were coded and analyzed using thematic approach. Results of the study showed that the students with visual impairments were accepted and supported by their sighted peers in the university, which created friendship among them. However, the students indicated that they had fewer intimate friends due to lack of trust in their sighted colleagues. Although the students were fairly satisfied with the nature of assessment items and opportunity for alternative medium of assessment in the university, they believed that most lecturers did not have adequate knowledge on how to modify instruction in teaching students with visual impairments. It was further revealed that, the university library materials were not provided in accessible formats to promote accessibility of information. It was recommended that the Department of Special Education should periodically sensitize lecturers on how to modify instruction to meet the needs of students with disabilities. Also, management of the university libraries should organise periodic training for students with visual impairments on the available electronic resources (e-resources) and how to retrieve them to their academic advantage.

## CHAPTER ONE

### INTRODUCTION

#### 1.0 Background to the Study

Experiences of students with special educational needs are important in their total educational pursuit. What students are exposed to in the educational environment can influence the kind of skills and knowledge they will acquire (Bhan, 2012). This means that positive life experiences of learners will lead to the production of knowledgeable and skillful individuals for the society. Many developing countries have recognized educating individuals with disabilities in mainstreamed settings as a desirable form of education and adopted inclusive educational policy. However, it is mostly not satisfactorily implemented in many countries (Acedo, Omadio & Operti, 2008; Boer, Pijl, Post, & Minnaert, 2013; Lewis, 2009).

Educating students with special educational needs in the regular education environment is a good practice because of the benefits that come with it. Avoke and Avoke (2004) stressed on the benefits of inclusive education as having the potential to reduce fear and build friendship, respect and understanding. Students need an education that will help them to develop relationships and to prepare them for life in the mainstream society. The experiences of students with visual impairments in regular institutions cannot be documented without hearing from them the meaning they make out of what they go through. Experiences have been further conceptualized in four ways: the pattern of social interactions that exist between students with visual impairments and their sighted peers; the nature of academic interactions between students with visual impairments and their lecturers; the support students with visual impairments receive from the Resource Centre

for Students with Special Needs; and how students with visual impairments access library facilities at the University of Education, Winneba (UEW).

The social interactions for students with visual impairments can have enormous influence on their self-esteem and academic prospects. Positive social interactions between students with and without visual impairments make them feel recognized, accepted and loved. Neary (2010) found out that when students develop positive relationships with peers, they may experience higher self-esteem and motivation in school, which are prerequisites to academic success. However, students with visual impairments sometimes experience unfriendly attitudes from their sighted colleagues because of their conditions, which do not promote their social participation. In a broader context, Derrington and Kendall (2004), remarked that persons with disabilities experience hostile attitudes and get called names, and some of them stay away from their peers without disabilities. Therefore, the quality of social interaction cannot be overlooked when the issue of total education is being discussed.

Academically, students with visual impairments face tougher situations in their struggle to understand concepts and access the curriculum. Heward (2012) opined that, persons with visual impairments experience more strenuous day concerning normal pupil activities than those without impairments. These practical problems pose a continuous hindrance in their academic work. Heward further stated that, access to the content of the curriculum through appropriate methodology, learning materials, permanent seats in the lecture halls, computer laboratories and modifications in quizzes and examinations materials remains challenging for students with visual impairments. The academic experiences of students with visual impairments seem to be negative in most inclusive

schools in Ghana. Specifically, it appears that most teachers do not have adequate knowledge in teaching students with visual impairments.

Students with disabilities, especially those with visual impairments, require extra support to cope with their lives in mainstreamed environments. The Resource Centre for Students with Special Needs (Disability Unit) is recognized as an important vehicle for including students with disabilities. This is because many students with disabilities attribute their adjustments in educational environments to the support of disability units (Matshedisho, 2010). Resource centres must have qualified support personnel that will train students with visual impairments to move about freely and independently in the environment, to use new technology in learning and to provide learning materials in accessible formats such as Braille and electronic. However, a study by Cowthon and Cole (2010), has shown that students with visual impairments in most universities do not benefit from such services.

University libraries play a very important role in the education of students. Libraries are the main source of information and knowledge for both staff and students. Providing access to information is the core responsibility of any university libraries. Nonetheless, access to information is often not fully extended to most students with disabilities, including students with visual impairments. Students with visual impairments generally encounter difficulties accessing library facilities, such as physical infrastructure, print materials and electronic information. Ekwelem (2013) conducted a study on the use of electronic resources by library users with disabilities in South-east Nigeria and found out that, the only electronic resources available to library users with visual impairments were taped books and online public access catalogue (OPAC).

According to Ekwelem, some respondents in the study perceived among others that, the libraries were established to serve only non-disabled users and that there was inadequate knowledge of the needs of those who did not or could not use the library. Ekwelem's findings suggested that students with visual impairments did not receive training to access online public access catalogues and other electronic materials.

Barriers to positive experiences, in terms of social interaction with peers, academic interaction with lecturers, and support from resource centres and access to library facilities must be removed to promote the holistic development of students with special needs. Students should be provided with opportunities and options at different levels to access educational and social experiences within the school (Soreci, 2005). This will reduce the marginalization students with visual impairments go through in the course of their stay on college campuses. The Republic of Ghana's Persons with Disability Act (Act 715), (2006) gives persons with disabilities rights to quality education, respect and human dignity and provides that, the state shall be responsible for ensuring that they realize their full mental and physical potentials. It is therefore, society's obligations to provide education to all people, according to the nature of their individual's needs and capacity.

A search at the Osagyefo Library at the UEW by the researcher on April 21, 2016, in the presence of a library staff, indicated that there was a dearth of empirical studies on the experiences of students with visual impairments in the university.

### **1.1 Statement of the Problem**

The UEW began admitting students with visual impairments in the 1993/1994 academic year with five (5) students who had visual impairments (Dogbe's, personal communication outcome, June 8, 2016). This number has increased over the years to a total of 62 students with visual impairments as at the 2016/17 academic year; yet, not much is known about their experiences at UEW. The experiences of students with visual impairments in regular institutions cannot be narrated without hearing from them the meaning they make out of what they go through. In addition, their daily experiences cannot accurately be seen from afar without giving ears to how they perceive it. The few studies that were conducted on the experiences of students with disabilities in inclusive education settings were conducted in the basic and senior high schools (Awini, 2015; Mantey, 2011; Rockson, 2014).

Studies have established the positive impact of social interaction on academic performance and the difficulty teachers in higher institutions appear to face in varying their methodology and adapting curriculum content to make it accessible to students with visual impairments (Aviles, Anderson, & Davila, 2006; Matshedisho, 2010). However, it is not clear the pattern of social interaction that exists between students with visual impairments and their sighted peers and the nature of academic interactions between students with visual impairments and their lecturers at UEW. In addition, very little is known about the support that students with visual impairments receive from the Resource Centre for Students with Special Needs and how they access library facilities at UEW.



## **1.2 Purpose of the Study**

The purpose of the study was to explore the experiences of students with visual impairments at the UEW in the Central Region of Ghana. The study specifically sought to find out the:

1. Patterns of social interactions that exist between students with visual impairments and their sighted peers at UEW.
2. Nature of academic interactions between students with visual impairments and their lecturers at UEW.
3. Level of support students with visual impairments receive from the Resource Centre for Students with Special Needs at UEW.
4. How students with visual impairments access library facilities at UEW.

## **1.3 Research Questions**

The following research questions guided the study:

1. What is the pattern of social interaction that exists between students with visual impairments and their sighted peers at UEW?
2. What is the nature of academic interactions between students with visual impairments and their lecturers at UEW?
3. What level of support do students with visual impairments receive from the Resource Centre for Students with Special Needs at UEW?
4. How do students with visual impairments access library facilities at UEW?

#### **1.4 Significance of the Study**

The results of the study would help in revealing the pattern of social interactions that exist between students with visual impairments and their sighted peers. This may inform lectures, resource staff and other stakeholders to organize activities towards improving the social interaction of the students if necessary. The findings from the study would also bring to light the nature of academic interactions between students with visual impairments and their lecturers at the university. This would also inform lecturers on what may be going wrong or otherwise in making the curriculum accessible to students with visual impairments.

Also, the results of the study would further help in revealing the level of support students with visual impairments receive from the Resource Centre for Students with Special Needs in UEW. This would enable personnel at the resource centre to improve on the level of support for the students. In addition, the results of the study would help in revealing how students with visual impairments have access to library facilities at UEW. This would also enable the library staff to make necessary provisions available to students with visual impairments to promote accessibility of library materials in the university libraries. Finally the results of the study would also add up to existing literature for any researcher interested in similar studies.

#### **1.6 Delimitation of the Study**

Even though, there were students with visual impairments in other universities in Ghana, this study focused on only students with visual impairments at UEW. The study only explored the experiences of students with visual impairments regarding the pattern

of their social interactions with their sighted colleagues, the nature of academic interactions with their lecturers, the kind of support they receive from the resource centre and how they access library facilities at UEW.

### **1.6 Limitations of the Study**

There were difficulties scheduling appointments with five students with visual impairments for the focus group discussions because they had different schedules for academic and social activities. The researcher overcame this challenge by consulting participants to schedule the focus group discussion on Saturdays where they had some leisure time. This delayed the data collection period. In spite of these limitations, the outcome of the study was not significantly affected.

### **1.7 Operational Definition of Terms**

**Academic interaction:** Teaching and learning processes that students go through in a university as they access information and understand lectures.

**Braille:** A system of embossed signs which are formed by using combination of six dots. It provides the opportunity for students who are blind to receive written information in accessible format.

**Experience:** Cilesiz (2011) defined experience as the active participation in events or activities, leading to the accumulation of knowledge or skills. Similarly, experience in the context of this study describes the events that students with visual impairments are involved in over a period of time as students in the university that leads to an increase in knowledge and skills.

**Resource Centre for Students with Special Needs/Resource Centre:** Any unit, department, office or directorate in (regular institutions) higher institutions that provide support to students with disabilities.

**Social interaction:** To get involved in social activity or communication with someone else or one another.

**Students with visual Impairments:** Students with visual impairments is an umbrella concept encompassing students with various degrees of visual loss. It is used to mean both students who vision loss and those who are blind. Students with low vision are those who can benefit from print material with some form of adaptations while those who are blind benefit from tactile, audio and electronic materials.

### **1.8 Organization of the Study**

In line with the in-house style of the UEW, this thesis was presented in six chapters. Chapter one comprised of the background to the study, statement of the problem, aim and objectives of the study, research questions, significance of the study, delimitations of the study, limitations, operational definition of terms and general layout of the study. Chapter two focused on the literature review taking into account the research objectives and the theoretical framework of the study. Chapter three dealt with the methodology including sample and sampling techniques, research design, population, instruments used in data collection and analysis, description and distribution of instruments. Chapter four covered the presentation and analysis of data collected and Chapter five focused on interpretation and discussion of results. Finally, the summary of

findings, conclusions, recommendations and suggestions for further research formed the concluding chapter of the report.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter presents the literature reviewed for the study. The literature was reviewed from research articles, refereed journals, and books. The literature reviewed first covered the theoretical framework and the review on the key themes raised in the research questions. The areas covered were:

- ❖ Theoretical framework
- ❖ Social interaction patterns of students with visual impairments.
- ❖ Nature of academic interactions between students with visual impairments and their lecturers
- ❖ The levels of support students with visual impairments receive in mainstreamed settings
- ❖ How students with visual impairments access library facilities

#### 2.1 Theoretical Framework

The study adopted Tinto's (1975) model of students' retention or departure (withdrawal) theory. Tinto explained in the model that an individual students' characteristics, prior experience, level of commitment towards their academic goal, and their ability to integrate socially and academically into the university system, influence the students' decision to persist or depart from an institution or activity. Tinto (1982) argued that a student's level of preparedness for academic work, expectations and ability to be involved in the social life of an institution determine the academic and social

integration of the student. Tinto further indicated that the quality or degree of academic and social integration into the life of the institution significantly influences the decision of a student to withdraw or persist in an institution.

Highlighting on the importance of faculty interaction on the integration of students, Tinto (1993; 1975) and Pascarella and Terenzini (1977) indicated that the quality of student-faculty formal and informal interaction and interaction with other students influence the students' decision to persist or withdraw from a particular institution. Astin (1993) and Tinto (1993; 1975) explained that academic and social involvement or integration is a necessary condition for students' retention, success and development in educational institutions, hence the importance of ensuring students' involvement in extracurricular activities and classroom interactions with faculty and other students. According to Tinto's model, the amount of engagement time students have with lecturers and with other students, both in the classroom and outside the classroom, primarily determines the social and academic development of the student.

The implications of Tinto's (1975) model of students' retention or departure (withdrawal) to the study are that, the ability of students with visual impairments to be involved in the social life of the university, influences their level of academic and social development. In other words, Tinto explained that the quality of social and academic experiences of students with visual impairments in a university, determines the students' decision to persist or withdraw from the university. Astin (1993) and Tinto (1975) explained that positive academic and social experiences of students with visual impairments are necessary for students' retention, success and development in the university. The quality of academic interaction between students with visual impairments

and faculty members determines the performance and academic development of students with visual impairments (Pascarella & Terenzini, 1977; Tinto, 1975).

## **2.2 Patterns of Social Interaction that Exists between Students with Visual Impairments and their Sighted Peers.**

Social interaction with peers is a crucial factor in promoting access and participation in positive life experiences. Estell, Jones, Pearl, and van Acker (2009) have noted that schools are social spaces and one of the greatest assets of this social space is that it can enhance learning and promote lasting and meaningful interactions with peers. Mainstream schools give students with disabilities the opportunity to develop harmonious relationships with their peers (Parvin, 2015) and interactions with friends. Positive social interactions are essential as they help to shape the lives of students with disabilities (Gresham, 1982) and allow students with disabilities to achieve academically in an inclusive environment (Marshall-Reed, 2010). The pattern of social interaction of students significantly impacts on the social, emotional and academic performance of the students regardless of the differences that might exist. When students develop positive relationships with peers, they may experience higher self-esteem and motivation in school, which are prerequisites to academic success (Neary, 2010).

Social interactions give students opportunities to care about and try to understand others and to respond to the feelings, needs and concerns of their friends. Within the context of social interactions, students with disabilities learn the norms and values of peers and also develop a network of supports (Carter, Hughes, Guth, & Copeland, 2005). Unfortunately, students with visual impairments are left out of a lot of socializing



activities since they are just put to one side (Kenny, McNeela & Shevlin, 2003); hence, they are not able to express peer-related social competences and thus, engage in more solitary play than their sighted peers. In a large scale study, Koster, Pijl, Nakken, and Houten (2010) found out that students with special needs have fewer interactions with classmates and are less accepted than students without special needs. Rockson (2014) also found out that, students with visual impairments lacked the support and friendship of their sighted peers. The study further showed that students with visual impairments interacted and related more with their fellow peers with visual impairments than with their sighted peers.

Students with visual impairments face challenges in gaining positive social interactions since they are neglected in social activities. For students with visual impairments, making friends is a daunting task even though friendships create contexts in which basic social skills are acquired and extended (Dunn, 2004). Social skills deficits manifested in many individuals with visual impairments may, however, lead typically achieving learners to avoid forming friendships with them or exclude them in certain educational and social activities (Estell et al., 2009). In their view, Aviles, Anderson and Davila, (2006) noted that social exclusion negatively impact on the academic performance of students with visual impairments since individuals' readiness to learn depends on a healthy social emotional development. To promote social interaction and inclusion, Roe (2008) observed that students with visual impairments need to develop awareness of themselves and a range of social skills through a variety of experiences. The author further stated that 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.

Awini (2015) used the mixed method approach to investigate the nature of social participation of pupils with visual impairments in school activities in selected regular basic schools in Ghana. A phenomenology research design and descriptive survey design were employed. A focus group interview which lasted between 40 to 45 minutes was conducted on 14 pupils while questionnaires were administered to 42 teachers. The pupils and teachers were selected using purposive and simple random sampling techniques respectively. The results revealed that the sighted peers of the pupils with visual impairments interacted with them, played regularly with them, had fun together, worked with them during group assignments, and were never treated harshly by their sighted peers. The study concluded that there was some fair level of social participation of students with visual impairments and blindness in activities in the schools. Among the recommendations of the study was that, teachers should create classroom environment that encourages frequent peer interactions with the blind.

Quite consistent with the findings of Awini's study is that of Pijl, Frostad and Flem (2008) who found out that the level of social participation of students with sensory and motor disabilities were most comparable to the ones of typically developing peers, which seemed to confirm the findings of another study reported by Humphrey and Symes (2010) that students with autism spectrum disorder (ASD), severe behavior and communication problems experience more social difficulties compared to students with other types of disabilities. The current study is different from that of Awini's because it focused on students with visual impairments in a tertiary institution.

Several studies and literature supported the fact that positive social interaction among students with disabilities and their non-disabled peers impact immensely on the

academic performance of the former (Aviles et al., 2006; Awini, 2015; Bromley, 2008; Vacca, Vacca, & Mraz., 2011; Wilkinson, Soter, & Murphy, 2010). Hunt, Soto, Maier, Müller and Goetz (2002), found out that the social interaction between pupils with special needs and their classmates seems to be at the core of social participation. Hurst, Wallace and Nixon (2013) carried out an investigation into students' perspectives of highly interactive and reflective classes using exit slips for data collection. The study sought to explore a model of instructional delivery where graduate and undergraduate students had the opportunity for daily interaction with each other. Forty-five student participants were selected from a graduate content area literacy course, a graduate literacy tutoring course and an undergraduate content area literacy course. The findings revealed that students in all the three courses perceived that social interaction created a positive working environment, improved learning by enhancing their knowledge of literacy, critical thinking and problem-solving skills and teaching. The current study, however, focused on undergraduate students with visual impairments.

A study conducted in the United States by George and Duquette (2006) employed the qualitative approach to explore the psychosocial experiences of a student with low vision. The case study used a semi-structured interview, classroom observation and a review of student's school file/documents for data collection. The interviews, which lasted 45 minutes each, were conducted on the student, two of the student's teachers and the mother. Data collection and analysis occurred simultaneously, with the analysis in first-person narrative. The major findings of this study was that the psychosocial development of students with low vision may not always be compromised by limitations of or perceptions of visual impairment and that these students may not, inevitably, have

difficulty with peer relations. Eric perceived himself as a socially accepted member of his class who was treated as an equal by teachers and peers. He attributed his success in the classroom to a variety of personal attributes, including his helpful nature, his academic standing, and his ability to educate his sighted peers and the staff about his specific needs. The current study involves 30 students with visual impairments including students with low vision.

A similar study conducted by Kasiram and Subrayen (2013) on the social exclusion of students with visual impairments at a tertiary institution in KwaZulu-Natal. The study employed the exploratory design. Convenient sampling technique was used to select 15 students with visual impairments from two campus sites of the university as participants for the study. Semi-structured interviews and focus group discussions were the tools employed for data collection. Among the findings of this study was abuse of power which manifested in numerous ways and at different levels across many structures in nuclear and extended families, mainstream schools, communities and the university. Findings of the study further established the fact that disability and poverty shared a dualistic, parasitical relationship and that exclusion was created and executed by superior or dominant groups in society hence, confinement or incarceration that did not happen by chance. The study by Kasiram and Subrayen extended their scope to include the social experiences of the participants in their families and communities.

These studies by Kasiram and Subrayen, and George and Duquette (2006) seem to reveal contradictory findings, because in one case there is acceptance of the student with low-vision, and in the other case, abuse of power towards students with visual impairments and exclusion from social activities.

The findings of this study, which also employed the qualitative approach, including the use of interviews and observation as data collection instruments, and the narrative approach in data analysis was expected to add more knowledge about experiences of students with visual impairments.

### 2.2.1 Friendship pattern of students with disabilities

Friendship, according to Gordon, Feldman and Chiriboga (2005), is very essential in the lives of many people. It is also a critical factor in the social, cognitive and emotional development of students (Schneider, 2000; Tipton, 2011) including students with disabilities. Social participation of students with disabilities is enhanced through friendship, which has multiple meanings and varies across cultures, though with some common dimensions (Keller, 2004). Friends are defined as people who spend time together, participate in more intense social activities together, and show higher rates of cooperation (Bowker, 2004). According to Freeman and Kasari (1998), “friendship is a social relationship based on interactions that are reciprocal, stable and serve the functions of intimacy, companionship, emotional support, and affection” (p. 343). Friendship can also be seen as a kind of social relationship between people that promote mutual feeling of trust, affection and support. Friendship provides the youth with the opportunity to learn about peer norms, values, accepted social behaviours and develop self-determination and other valuable life skills (Brown & Klute, 2003; Carter, Swedeen & Kurkowski, 2008; Gifford-Smith & Brownell, 2003).

Studies have found out that within the group of students with disabilities, students identified with sensory disorders find it particularly difficult to build relationships with

typical peers and are at risk of becoming isolated in the classroom (Chamberlain, Kasari & Rotheram-Fuller, 2007). Robinson and Truscott (2013) noted that making and maintaining friendships is primary themes that emerge as critical to a sense of belonging in school for students with disabilities. A large scale study at Norway also found that students with disabilities and those with behavior problems had a considerably more difficult time finding and keeping friends (Frostad & Pijl, 2007).

Acceptance of students with disabilities is key to the creation and sustenance of a healthy friendship. The acceptance of students in the peer group is of relevance for both their social and academic development (Schaffer, 1996). However, students with disabilities seem more vulnerable to being isolated (Pijl, & Frostad, 2010) and less accepted in inclusive classrooms. For instance, Pijl, Frostad and Flem (2008) found that, up to 25% of students with disabilities were not accepted, did not have any friend and did not participate in a subgroup in class, while only 8% of their typical peers went through similar experiences. This was consistent with the findings of a previous study by Frostad and Pijl in 2007 that students with special needs were often less popular than their classmates and had fewer friends, even in inclusive settings. This seems to affirm the notion that although researchers have recognized the social benefits of inclusion education, inclusion does not automatically lead to more social contact and friendships between students with and without disabilities (Scheepstra, Nakken, & Pijl, 1999). For students with visual impairments, making friends is a daunting task, even though friendships create contexts in which basic social skills are acquired and extended (Dunn, 2004).

Majority of studies on friendship of students with disabilities have been on children and adolescents (Awini, 2015; Gordon, Feldman, & Chiriboga, 2005). Ciairano, Rabaglietti, Rogerro, Bonino and Beyers (2007) noted that the quality of friendship is one of the most important aspects of friendship development in adolescence. In an ethnographic study by Matheson, Olsen and Weisner (2007), 27 Euro American teenagers with developmental disabilities were asked to describe their friendships through a semi-structured interview. The study engaged six field workers who visited and lived with a maximum of 7 participants assigned to them. They were to record their observations of the assigned participants and their self-described friends and peers. The participants responded to a semi-structured interview about different aspects of their lives including friendship. Matheson et al. coded the interviews for 11 domains of friendship drawn from the literature on typically developing children: similarity, proximity, transcending context, companionship, reciprocity, mutuality, help/support, conflict management, stability, trust/loyalty, and intimacy/disclosure.

Matheson et al. found companionship as very important for the teens among other popular themes such as similarity, and stability/proximity. On the other hand, intimacy/disclosure, support, reciprocity, and trust/loyalty were less frequently discussed. The ethnographic observations also indicated that the large majority of the teens in the study did have friendships and were socially engaged in ways that they themselves found satisfying. They also had positive and stable friendship with their peers with developmental disabilities than with typically developing peers. The current study differs from that of Matheson et al. because the current study focuses on adult students with visual impairments.

In another qualitative study, Lifshitz, Hen, and Weise (2007) focused on investigating the self-concept, quality of friendship and adjustment to blindness among adolescents with visual impairments. The participants included 40 sighted adolescents and 40 adolescents with visual impairments selected from public schools and residential school in equal numbers. The quality of friendship scale was administered to gather data on the quality of friendship aspect of the study. It was evident that both groups of visually impaired adolescents responded similarly to the instrument in four of six subscales while the sighted adolescents scored significantly higher on the other two subscales which are spending leisure time together and confrontation and betrayal. These findings were consistent with that of Sacks and Wolfe's (1998) who found the quality of friendships and social interactions to be low among adolescents with visual impairments due to their difficulty to acquire social skills and inability to use nonverbal communication. This study is set apart from that of Matheson et al. (2007) and Lifshitz et al. (2007) because the current study focuses on adult students with visual impairments in a higher institution.

### 2.2.2 Cooperative learning with sighted peers

Gillies (2004) explained cooperative group learning as a small number of students working together on a common task through sharing of resources, encouraging each other's efforts and assisting each other in completing the task. Recognising that students can be the best teachers, small group sessions can be planned to work on skills the student needs to develop or reinforce consequently providing the opportunity for the student to engage in positive social interaction with peers (Roe, 2008). Students benefit in many ways when engaged in cooperative/group learning activities. Cooperative learning can be used to promote the acceptance, self-esteem, social skills and positive interaction



of students (D'Allura, 2002). Slavin (2009) also concluded that cooperative learning strategies promote social interaction in learning and helps students to feed knowledge to one another. Students who perform a task in group learn to perform that task independently in future because of the knowledge and skills learnt in performing the group task. Vigotsky (1962) quoted in Schneider (2000) affirmed this view saying that what a child can do in cooperation today, he can do alone tomorrow.

In spite of the many benefits of learning in groups, students with disabilities, including students with visual impairments, are less likely to be involved in group activities. Pijl and Scheepstra (1996) reported that students with blindness attending a mainstream school in Holland were the least likely to be involved in small group work in the classroom. The authors further reported that, whereas the nature of their interactions was similar to that of their typical classmates, the students with blindness took less initiative for interaction.

A study conducted by Boruvkova and Emanovsky (2016), in Czech Republic involving 207 learners of first, second, and third grades of lower secondary schools find out if cooperative learning methods could help to integrate isolated learners into the class. Pre-test-post-test design was employed for the study. Standardized sociometric questionnaire B-3 was used to determine the number of isolated learners before and after using the cooperative learning methods. The number of isolated learners (sociometric results) obtained during the use of the classical frontal learning without any cooperative learning method was compared with the number of isolated learners after a five-month application of cooperative learning method. The results revealed that the number of isolated learners within the frontal teaching and cooperative learning are statistically

significantly different. The number of isolate learners within the classical frontal teaching was higher than after using the cooperative learning method. The study concluded that cooperative learning is very useful in helping the marginalized students to be incorporated into their team and enjoy the benefits of learning in a group. The current study differs from that of Boruvkova and Emanovsky because the current study employed interview as the instrument for data collection.

Rockson (2014) also employed the descriptive survey design in exploring the strategies teachers use to promote interaction among students with visual impairments and their sighted peers in selected integrated senior high schools in Ghana. Using purposive and random sampling techniques, 75 participants were selected for the study which included teachers, students with visual impairments and regular education students. Among the findings of the study was that teachers used group work (peer tutoring) as a strategy to promote social interaction among the two categories of students in the schools. The studies that have been reviewed seem to emphasize the importance of cooperative learning in promoting social interaction among students. This current study sought to find out, among others, the extent of involvement of students with visual impairments in cooperative learning activities.

### 2.2.3 Participation in extra-curricular activities among students with visual impairments

According to Massoni (2011), extra-curricular activities are activities that students participate in that do not fall into the realm of normal curriculum of schools and they are in many forms such as sports, clubs, hall week celebrations, religious fellowships and drama. Massoni further indicated that:

Extracurricular activities are a part of students' everyday life. They play important roles in student's lives. They have positive effects on student's lives by improving behavior, school performance, school completion, positive aspects to make successful adults, and social aspects (p.86).

Several studies have found out that students' participation in extra-curricular activities have the potential to influence positive gains in social relationships (Fletcher, Nickerson, & Wright, 2003; Howie, Lukacs, Pastor, Reuben, & Mendola, 2010; Siperstein, Glick, & Parker, 2009). Fredricks and Eccles (2006) found that students who participated in a greater number of extracurricular activity contexts demonstrated higher levels of academic adjustment, psychological adjustment, and civic engagement, and lower rates of involvement in risk behaviors (including drug and alcohol usage) during adolescence. Extra-curricular activities, such as sports, are good avenues for students to develop and maintain friendships. Movahedi, Mojtahedi and Farazyani (2011) compared the social skills of Iranian teenage students with visual impairments who were athletes and non-athletes using the Social Maturity Scale. The authors examined 51 athletes who were visually impaired and 56 non-athletes who were visually impaired. The results proved the notion that participation in sports resulted in better improvements in socialization. They recommended that officials and students should encourage sports participation in students with visual impairments.

In spite of the documented benefits of extra-curricular activities, students with disabilities, including students with visual impairments, are generally less involved in recreational activities outside of school time (Solish, Perry, & Minnes, 2010), consequently, students with visual impairments have less opportunities for interactions with sighted peers (Gore, 2015). In a small scale qualitative study Shevlin, Kenny and

McNeela (2002) reported on the experiences of students with disabilities where some of those students were left to watch physical education rather than participate and were not permitted to go on school trips. The participants in the study further expressed that they felt excluded and even more aware of their differences when they were not permitted to participate in such extra-curricular activities. Kearney (2009) also found among others that students with disabilities experience access difficulties associated with enrolment at school and participation in curriculum and extra-curriculum activities.

Gibbons (2013) conducted a mixed-method study to explore the participation of high school students with disabilities in school-based extra-curricular activities using survey questionnaire and interview as data collection instruments. Seventy-one high school students, including students with disabilities, and 150 youth leaders/coaches were the participants for the study. In their interviews, student participants discussed societal participation barriers enacted by their school peers as inhibiting factors to participation. The students further expressed that participation was based on their interest and were facilitated in or discouraged from participating by parents based on established boundaries and roles. The coaches and leaders data also indicated that leaders recognized that students encountered barriers to their participation, but often did not understand the ways in which their perceptions of disability shaped some of the barriers students with disabilities encountered. The current study, however, did not include youth leader/coaches as participants.

Contrary to the findings of the above studies, a student with low vision and the principal participant in a single-case study conducted in Canada was found to be engaged in a variety of sporting activities, both at school and in the community. In spite of

occasional attempts by peers to exclude him in games because he was unable to play competitively, the participant remained motivated and continued to play intramural sports at school as well as sports that were organized in the community. The student's parents also encouraged their child to participate in sports by enrolling him in numerous activities outside school, such as hockey, wrestling and skiing) which supported his physical and social development (George & Duquette, 2006). The gap in George and Duquette to be filled by the current study is that, George and Duquette concentrated only on the student's participation in sports but did not find out the nature of the students' friendship and experiences in cooperative activities with the sighted peers that the current study set out to do.

### **2.3 Nature of Academic Interactions between Students with Visual Impairments and their Lecturers**

Teachers play essential role in ensuring that students with disabilities receive quality post-secondary education (Zhang, Landmark, Reber, Hsu, Kwok, & Benz, 2010). The teacher's role in educating students with disabilities in mainstream settings cannot be underestimated. Teachers seem to be key players in ensuring positive relationships among students with and without disabilities, which relates positively to academic performance. Bauer and Kroeger (2004) indicated that the teacher's interactive role in an inclusive classroom is the most influential factor in bringing all pupils together. Postsecondary students with disabilities often encounter challenges (Ryan, 2007) in accessing a full range of learning interactions in schools (Richardson, 2015). Heward (2012) asserted that access to the content of the curriculum through appropriate methodology, learning materials, permanent seats in the lecture halls, computer

laboratories and modifications in quizzes and examination materials remains challenging for students with visual impairments.

Students with visual impairments require positive in-class interactions that meet their needs to enhance their social and academic performance. However, how to differentiate instruction for increasingly heterogeneous groups of students is arguably the greatest dilemma faced by classroom teachers today (Cameron, 2014). Ford, Davern and Schnorr (2001) contended that teachers' interactions with persons with disabilities were poor because they were not well-inclined to disability issues and so they did not address the challenges in the inclusive classrooms. If students with disabilities are to fully participate in the teaching and learning process, instructors need to have an understanding of the needs of students with different disabilities and gain the skills to facilitate the learning needs of those students (D'Andrea & Gosling, 2005; Wolanin & Steele, 2004).

Curriculum is the means and materials with which students interact for the purpose of achieving identified educational outcomes (Edward, Ebert, & Bentley, 2013). The curriculum has some deficiencies which do not embrace students with disabilities including students with visual impairments. Teachers are therefore, expected to make up for the deficiencies in the curriculum and in educational resources (Howie & Plomp, 2005). Although, evidence abounds in the literature on the need for sufficient in-service training for teachers or faculty on accommodations and adaptations of methodology for teaching students with disabilities in inclusive classrooms (Cameron & Cook, 2007; Longtin, 2014; Murray & Flannery, 2008; Mushome & Monobe, 2013), teachers in developing countries such as Ghana have generally not received sufficient training on accommodations and adaptations to effectively teach students with disabilities in regular

classrooms. This has caused general education teachers the difficulty in making adaptations to meet the needs of individual students (Bulgren, Marquis, Deshler, Schumaker, Lenz, Davis, & Grossen, 2006; Dymond & Russell, 2004). Mushome and Monobe (2013) found out that even though the university had been registering students who were visually impaired each year, faculty members were not trained to manage these students in the lecture halls to enhance their academic and social performance.

In their study, Utschig, Moon, Todd and Bozzrog (2011) found out that, faculty members were unwilling to explore innovative or technological accommodations beyond simplistic ones because of the work or time involved in implementing them. On the other hand, other faculty members displayed willingness to accommodate and accept students with disabilities, especially those with learning disabilities, hearing impairments or visually impairments (Gitlow, 2001; Jensen, McCrary, Krampe, & Cooper, 2004; Wolman, McCrink, Rodriguez, & Harris-Looby, 2004). Some faculty members perceived accommodations, such as alternative mode of examination and devotion of a little more time to students with disabilities, as unfair to students without disabilities (Vasek, 2005), while others held a contrary view to providing accommodations to students with disabilities (Vogel, Leyser, Wyland, & Brulle, 1999). Studies conducted on teacher–student interactions have consistently found that students with special needs receive a greater proportion of one-to-one teacher attention than do students without disabilities in inclusive classrooms (Kemp & Carter, 2002; Lee, Wehmeyer, Soukup & Palmer, 2010).

Cameron (2014) used the mixed-method approach to examine teacher-student interactions in inclusive classrooms in Ohio-USA. Semi-structured interviews and observation (Inclusive Classroom Observation System) were the methods used to gather

data from students with and without disabilities and educational professionals (i.e., general educators, special educators and paraprofessionals). Seventeen teachers were observed during interaction with the students in the classroom. This was followed by interviews of six out of the seventeen teachers. It was found out that a large portion of class time was devoted to whole group instruction provided by general educators, followed by brief periods of one-one interactions directed towards individual students, most frequently students with disabilities. Teachers were aware of the greater individual attention devoted to students with disabilities and described a number of ways that they adapted their instruction for effective teaching. It was also found that participants struggled with the dilemma of balancing their attention between students who need it most and ensuring that the class as a whole made adequate progress. The current study is different from that of Cameron because the current study did not include teachers and special educators. The current study did not also include observation as a data collection instrument.

The findings of a survey conducted by Zhang, et al. (2010) revealed that many faculty members were not fully supporting students with disabilities according to legal requirements or recommendations for best practices. This was due to faculty's level of knowledge of legal responsibilities, the support from the institution and their personal beliefs regarding the education of students with disabilities. The study engaged 206 faculty members from nine major universities in the southern states of USA. Zhang et al. recommended that the institutions organize training programs and innovative interventions to assist faculty in making the necessary accommodations for students with



disabilities. The current study gathered data from students with visual impairment not faculty members.

Kuyini and Desai (2008) also examined the provision of instructions to students with special needs in inclusive classrooms in Ghana. Thirty-seven teachers from twenty primary schools in two districts were participants for the study. A multi-stage cluster sampling procedure was used to select the two districts and the twenty schools from the two districts. The participants completed a Background Information Questionnaire (BIQ) and were also observed during instruction in their classrooms using The Effective Teaching Practices Checklist (ETPC). Descriptive statistics, t-tests and regression analysis were used to analyze data. The results indicated that teachers' experiences working with students with disabilities were the background variables most predictive of adaptive teaching. The teachers were also found using more generic teaching practices with limited or no adaptations tailored to the needs of included students. Again, it was found that increased teacher exposure to students with disabilities and further professional development would lead to increased teacher capacity to provide more adaptive instructional practices and ensuring that individual needs of students with disabilities are adequately addressed in inclusive classrooms. The current study gathered data from students with visual impairments and also employed only interviews in collecting data.

### 2.3.1 Lecturers' instructional methods

For many years, teaching in higher institutions has been dominated by the teacher-centred instruction where lecturers make all the decisions concerning the choice and organization of the content, interpretation and application of concepts, and the means of evaluating student learning while the students' efforts are focused on recording the information (Ahmed, 2013; Weimer, 2002). In the teacher-centred teaching style, the teacher controls what is to be taught and how students are presented with the information that they learn. In recent years, however, there has been a shift from the traditional teacher-centred style of instruction to new pedagogical approaches to improve student motivation, autonomy and achievement (Fernandes, Flores, & Lima, 2012). Weimer noted that the student-centred or learner-centred teaching style has now replaced the teacher-centred teaching style in higher institutions. Student-centred teaching is rooted in John Dewey's constructivist teaching philosophy, which advocates that students learn by doing and experiencing rather than depending on the teacher's wisdom and expertise to transmit knowledge (Brown, 2008).

Wohlfarth, Sheras, Bennett, Simon, Pimentel and Gabel (2008) contended that, in the learner-centred classroom, the teacher abandons lecture notes and multi-bullet point slides for a more active, engaging and collaborative style of teaching. They further stated that the focus of this teaching style is on how students learn instead of how teachers teach. In the student-centred teaching style, there is a shift in the responsibility of the learner as a passive receiver on information to active creator knowledge. Slunt and Giancarlo (2004) espoused on this view commenting that the learner-centred teaching style provides the opportunity for students to take control and responsibility of their

learning by being actively involved in the learning process rather than simply passively receiving information from a lecturer. In learner-centred instruction, knowledge is constructed by the students and the lecturer only acts as a facilitator of learning rather than a presenter of information (O'Neill, & McMahon, 2005). From the foregoing, student-centred teaching appears to lie at the core of effective classroom teaching.

Teachers, who believe in student-centred instruction, rely heavily on hands-on activities, small group work, projects, and discussion to engage students and encourage active participation in class (Garrett, 2008). The student-centred instructional style, which involves group work, projects and discussion, have been found to be most advantageous to students including students with disabilities. Students who experience student-centred instruction involving group work and discussions get the opportunity to learn to cooperate with one another, take up leadership roles such as writing or presenting their assignment and facilitating the group, learning communicative skills from their group members, and also, learning problem solving skills as they try out their own ideas on other students and the instructor (Aaronsohn, 1996; Al-Zu'be, 2013; Walters, 2011; Zhang, 2003). Wohlfarth et al. (2008) further found that students felt respected as learners, developed their critical thinking skills, and encouraged their self-directedness when they experienced the student-centred form of instruction. Weimer (2013) believed that the student-centred style of instruction supports the inclusion of all kinds of students including students with disabilities. Al-Zube concluded that teachers also benefit from the student-centred style of instruction as they also learn from the students and the activities they carry out.

To examine and identify the type of teaching style of instructors at a Midwestern university in USA, Ahmed (2013) randomly selected 22 graduate education instructors (14 males and 8 females) aged between 49 years old and 54 years old from four departments in the university to complete the Principles of Adult Learning Scale (PALS) concerning their teaching styles. . . The total mean score of the participants was 144.55 with a standard deviation 16.62. This meant that the overall teaching style of the instructors at the university was more learner-centred than teacher-centred, despite the variation in the mean scores of the sample. It was also found that there were no significant relationships between instructor's age or years of teaching and his/her teaching style. The findings seem to emphasize the fact that learner-centred style is replacing the traditional teacher-centred teaching style.

In another study, Majoka, Khan, and Shah (2011) compared the achievement scores of 7<sup>th</sup>-grade students in social studies in public schools in Pakistan. The quantitative experimental study sampled 100 students for the study. Fifty students each were placed in the control group and the experimental group based on the mean scores of a pre-test. Two teachers having the same academic qualification and teaching experience were selected for the study. Students in the control group were taught using a lecture method for each of the three parts of the lesson while the experimental group experienced one day of direct teaching followed by a worksheet and team time. The pre-test and post-test scores served as the data of the study. Statistical tools used in the study were standard deviation, effect size, and percentile point gain. Majoka, et al. found that learning in a cooperative classroom enhanced the students' ability to learn in the subject of social studies. They further found that cooperative learning proved to be more effective than the

traditional method for students labeled as high and average achievers. Unlike the Majoka, et al. study, the present study adopted the phenomenological design and also focused on only 16 students with visual impairments.

### 2.3.2 Students' involvement/participation in academic activities

Accessing university education by students with disabilities means promoting participation, progress and success in the university curriculum (Moswela & Mukhopadhyay, 2011). However, students with disabilities experience access difficulties associated with participation in the curriculum (Kearney, 2009). Individual students including those with disabilities need opportunities for successful participation in learning activities to promote academic and social performance. It is the responsibility of lecturers in higher institutions to ensure that students with visual impairments have access to the curriculum and participate in learning activities at the lecture halls. Powell (2003) stated that if students with visual impairments are to participate fully in the teaching and learning process, among many other considerations, certain adaptations and modifications have to be made to the regular curriculum. These adaptations may require the collaboration between the lecturer and resource staff. Faculty can also modify how they deliver lectures by making use of instructional material where applicable to promote participation of students with visual impairments for improved student outcomes (Tincani, 2004).

In a case study conducted in South Africa by Mushome and Monobe (2013) which employed the mixed approach, twenty students with visual impairments were interviewed using semi-structured interview items and twenty lecturers were given

questionnaires. Among the findings of the research was that, there were no specialist lecturers who could teach students with visual impairment, and due to the lack of experience, most lecturers did not consider where the students with visual impairments sat during lectures. In effect, a few of the instructors considered the circumstances of students with visual impairments. The authors further identified lack of communication amongst important role-player such as specialist teacher and resource staff as a factor that denies students with visual impairment of accommodations. Instructors can modify how they deliver lectures to improve student outcomes. The more often students actively respond to instructional material, the more they are likely to learn. The difference between the Mushomme and Monobe study and the present study is that the present study adopted the qualitative approach and did not include instructors as participants.

Some studies have reported the dissatisfaction students with disabilities experience in teaching and learning in some universities in Africa. For example, Moswela and Mukhopadhyay (2011) found that university students with disabilities struggled to access and participate in higher education in Botswana. In this qualitative study, seven students with disabilities were interviewed. One of the students with visual impairment, who participated in the study, expressed his dissatisfaction of interaction with one of his lecturers remarking:

When I told one of my lecturers that I can't see, he did not understand what I was talking about. He did not pay any attention to my concern and continued to teach the same way that he was teaching for the entire semester. I find it very difficult to keep up with the pace. It took me long time to adjust with the pace of learning in this University. I came from a senior secondary school where people there knew how to deal with people like me who have visual problem. (p 313)

In another study conducted by Haihambo (2010), students with disabilities in Namibian higher education institutions expressed their dissatisfaction in most of their encounters with their instructors. One student with visual impairment remarked this way:

... I soon got a [tape] recorder, but it was not always efficient, and lecturers would not give you a chance to set it up. That's when I realized that unlike at school lecturers do not spend time on greetings. They get straight to business. So I was always battling between leaving the tape and just listen, or try to record from wherever I could. Even when you are recording, many lecturers move around in the room, sometimes going too far away from the tape. When they leave, they don't even say — I am gone. You just have to rely on the movement in class to know the lecture is over. (p. 302)

These statements describe a few examples of lecture hall experiences of students with visual impairments in some universities in Africa. The lecture hall experience of students with visual impairments at UEW is yet to be documented for improved practice.

### 2.3.3 Assessment of students with visual impairments

Assessment is the most controversial issue in today's higher education (Norton 2009) as it is reportedly the area where educators have the most divided opinions and the area with which students are least satisfied (Gebrehiwot, 2015). Norton (2007) claimed that assessment informs students about what they should emphasize on in order to be successful in their studies and also serve as a basis for feedback. This suggests that assessment has a great influence on how and what students learn. Students adopt varying approaches to studying based on personal factors and contextual factors such as assessment procedures (Zeeger, 2001). Redpath, Kearney, Nicholl, Mulvenna, Wallace

and Martin (2012) reported in their study that many students, especially those with disabilities, used to select courses based on the means of assessment to be utilized.

Craddock and Mathias (2009) established in their studies that both students with and without disabilities in universities have negative experiences in assessment and students with disabilities were found restricted by the modes of assessment. Shepherd (2006) reiterated on the negative experiences of students with disabilities in assessment arguing that students with disabilities may have been disadvantaged in some of the activities during the teaching and learning process and if the assessment instruments also are biased towards activities that favor sighted students, such as by making considerable use of graphics, they would be doubly disadvantaged. Challenges that students with disabilities face in assessment practices relate to the environment where the assessment takes place, the modes of assessment used, and the terminal once-off summative examinations (Hanafin, Shevlin, Kenny, & McNeela, 2006). These negative experiences create uneasiness among students with disabilities. To minimize the uneasiness of students with visual impairments in situations where summative assessment is inevitable, Salisbury (2008) describes the following strategies:

Modifying assessments: - This should enable SVI to have full access to the assessment without giving them any unfair advantage.

Others' support: - SVI may need the support of others in certain assessment activities which they cannot do independently. For instance, they may require readers and scribes in written examinations; they may also need others' assistance in practical activities such as using equipment, locating materials, drawing and measuring.



Time allowances: - SVI should be given additional time to complete their assessments to be decided by the individual instructor based on the purpose and nature of the assessment.

Alternative methods of assessment: - In certain situations where formal methods of assessment may not be appropriate for SVI, the instructor should assess them using non-formal methods such as class work, portfolios, or oral presentations. (p. 40-41)

Tennant, McMullen and Kaczynski (2010) suggested that different assessment mechanisms including self-assessment, peer assessment, portfolio assessment, authentic assessment and workplace-based assessment could be employed to give students greater responsibility for their own learning. A study by Waterfield, West and Parker (2006) revealed that using alternative methods of assessment benefit both students including students without disabilities since all students included in the research gained an overall improvement of five percent in marks.

In a descriptive survey, Madriaga, Hanson, Heaton, Kay, Newitt and Walker, (2010) administered questionnaires to 484 students including 172 students with disabilities. Based on a t-tests analysis and transcription of interview responses of participants, it was found out that students with disabilities indicated having greater difficulties than non-disabled students with the amount of time required to complete coursework and difficulties with literacy. There was however no significant statistical difference between students with disabilities and non-disabled students regarding difficulties with assessed group work. The current study sought to find out the experiences of students with regards to assessment of learning in the university using only interviews.

Some faculty members perceive accommodations such as alternative mode of examination and devotion of a little more time to students with disabilities as unfair to students without disabilities (Vasek, 2005) while others hold a contrary view to providing such accommodations to students with disabilities (Vogel, Leyser, Wyland, & Brulle, 1999).

#### **2.4 The Level of Support Students with Visual Impairments receive in Inclusive Settings**

DeLee (2015) asserted that as many students with disabilities take advantage of higher education, colleges and universities should be prepared to provide necessary accommodations and support services for their overall success. The author further explained that for students with disabilities to succeed in universities, they required the support of disability support staff to complement lecturer's efforts at accommodating them in the teaching and learning process. Many students with disabilities attribute their adjustment in educational environments to the support of disability units (Matshedisho, 2010). Providing needed support services may motivate students with disabilities to take up meaningful roles in interactions and to maintain their enrollment in higher education and ultimately to graduate (Heindel, 2014). In spite of the important role of support services in the education of students with disabilities, ensuring that students with disabilities obtain the necessary disability support services needed to be successful in higher education is one of the largest challenges of universities (Cowthon & Cole, 2010).

Most higher education institutions have an office of disability support services that provides assistance to students with disabilities (Katsiyannis, Zhang, Landmark, &

Reber, 2009). In Ghana and Uganda, students with disabilities educated in mainstreamed institutions receive resource support in order to access the curriculum (Good-Man & Mbithi, 2012; Wittenstein, 2003; Spradbrow & Power, 2004). Students with disabilities received various types of support services that are geared towards making them more successful in terms of course completions (Moisey, 2004). Support services students with disabilities including students with visual impairments, receive in mainstreamed institutions include, note-taking, alternative test formats, extended time on tests, reading tests to students, adaptive technology, preferential classroom seating, alternate test locations, taped notes/text and providing tutorial support (Cowthon & Cole, 2010; DeLee, 2015; Kurth & Mellard, 2006).

Furthermore, students with visual impairments require specialized instruction in the use of computers with appropriate software such as Job Access With Speech (JAWS) and Non Visual Display Access (NVDA), training in the use of different types of assistive technologies (such as closed circuit television systems and Braille displays, and electronic magnifies) and training in the acquisition of orientation and mobility skills (Cooper & Nichols, 2007; Vik, & Lassen, 2010) to enhance their success in mainstreamed institutions. These support services are critical in the education of students with disabilities including students with visual impairment because, lack of these necessary support services can render them socially and academically excluded and overly dependent (Tugli, Zungu, Ramakuela, Goon, & Anyanwu, 2013).

Troiano, Liefeld, and Trachtenbert (2010) completed a study involving 262 students with disabilities from a private postsecondary institution to determine if a connection exists between learning support and student success. Five years of attendance

data and graduation rates were examined and submitted to discriminate function analysis to evaluate the predictive influence of academic support centre use on college student outcomes. The various types of learning support available included assistance with note taking, test preparation, test taking, writing strategies, research skills, time management, and building self-advocacy skills. The results indicated that over 64% of the students surveyed took advantage of learning support services available at their given institutions. Also, it was confirmed that students who consistently attended academic support centre appointments had higher rates of success than those who did not attend consistently. These students also had higher grade point averages and persisted to graduation. The current study is different from that of Troiano et al's. (2010) because the current study sought to explore the experiences of students with visual impairments at UEW. Also, the current study employed a semi-structured interview to collect data on the experiences of 30 students with visual impairments in a public university in Ghana.

In another study, Mamiseishvili and Koch (2012) determined how different types of educational services could be related to overall success of students with disabilities in 2-year institutions in the United States. The study utilized both a survey and explanatory correlational research designs. Support services available to students with disabilities in these institutions included adaptive equipment, alternative examination format, readers, note takers, sign language and interpreters, and access to academic advisors. Although the findings from the study revealed examination provisions and tutors being the most used services, it was also discovered that over 50% of students with disabilities did not persist beyond their first year or left by the end of year three. There were students who

did not utilize all services available to them and at least 44% reported never meeting with an academic advisor to help facilitate the planning and registration process.

Mamiseishvili and Koch (2012) also found out that students who experienced mobility challenges or suffered from depression, psychiatric disorders, or dyslexia did not persist after three years. Again, findings of the study suggest that having high GPAs and degree aspirations during the first-year were positively associated with persistence as 77% of students desired to pursue higher education; however, 51% left before the end of three years. The researchers concluded that even though students with disabilities had high aspirations, without proper planning and assistance students could fail to succeed. The authors suggested that administration and disability support services work together to examine and address possible problems that might exist considering the high percentage of non-returning students discovered. The current study focused on students with visual impairments in 4-year degree programmes in a public university in Ghana.

The University of Education, Winneba has established the Resource Centre for Students with Special Needs since 1993 to support the increasing number of students with disabilities in their social and academic life at the institution. However, the kind of support the staff at the centre provides to students with disabilities, especially those with visual impairments and the effectiveness of the support the students receive, is yet to be documented. Reinschmiedt, Sprong, Dallas, Buono, and Upton (2013) expressed that increases in enrollment of students with disabilities in postsecondary institutions should propel the need for administration to evaluate support services and accommodations offered. The authors also believe that students' satisfaction of support services indicates what is effective.

To assess students' satisfaction of services offered by Disability Support Services within postsecondary institutions, the researcher conducted a survey involving 116 students with disabilities. Of the services and accommodations used, students were most satisfied with assistive reading and listening technologies, testing accommodations, text conversion software, and readers. Academic advisement and accommodation planning, assignment extension, and taped lectures were rarely used as were tutoring and on campus classroom accommodations. The authors suggested that Disability Support Services implement strategies to disburse information in a timely manner. Some earlier studies have reported on both sides of the coin where in one case students reported low level of satisfaction with support services received and in another case majority of students reporting high levels of satisfaction with disability support services (Dutta, Schiro-Geist, & Crandall, 2003; Sharpe, Johnson, Izzo, & Murray, 2005). The current study seeks to find out the types and effectiveness of support services students with visual impairment receive from the resource centre at UEW.

#### 2.4.1 Instruction in orientation and mobility

Ocloo (2011) postulated that the ability to walk to work or training grounds are very crucial to any meaningful programme for individuals with visual impairment. It is therefore important to provide orientation and mobility training instructions in our educational institutions for students with visual impairment whose condition causes limitation in movement. According to LaGrow and Weessies (1994), the acquisition of skills in the area of orientation and mobility training encompasses the understanding of one's self-placement and relationship within the environment, and the abilities to

efficiently plan and safely execute purposeful movement through the environment in order to arrive at a desired destination.

Orientation and mobility training as a component of the rehabilitation facilities teaches individuals with visual impairment to maintain independent travel by ambulating and negotiating both known and unknown environments safely and independently (Zijlstra, van Rens, Scherder, Brouwer, van der Velde, Verstraten, & Kempen, 2009). In spite of the importance of orientation and mobility instruction to students with visual impairment, Ocloo (2011) asserts that most educational institutions and rehabilitation centres in Ghana do not have qualified mobility instructors and devices. The author believes that this deficiency stems from the fact that Ghana as a country has no mobility training centres and that it is only UEW that offers courses in basic orientation and mobility training, which does not certify individuals as qualified mobility instructors. Meanwhile, students with visual impairments in universities require orientation and mobility instruction to be able to move independently to lecture halls, canteens, sports grounds and other places of social gathering to enhance their academic and social development.

#### 2.4.2 Instruction in information and communication technology

Teye (2014) posits that higher education generally requires students to have basic computer skills to undertake activities such as searching for information, submission of assignments and communication. Hasselbring and Glaser (2000) noted that students with disabilities can use computer technology for word processing, communication, research, and multimedia projects to keep up with their colleagues who do not have disabilities.

Students with disabilities can compete academically with their non-disabled colleagues using computer technology, yet it has been found that majority of individuals not excluding students with disabilities have difficulty in using computer largely because they lack essential knowledge and skills in using computers (Bordbar, 2010), insufficient computers and assistive software such as JAWS (Job Access With Speech) in the schools (Pelgrum, 2001; Albirini, 2006).

Ozden (2007) and Toprakci (2006) referred to the lack of effective training as one of the major barriers to the acquisition of computer skills by students including students with visual impairment and integration of Information and Communication Technology (ICT) in educational institutions. Smith and Polloway (2008) were of the view that while access to the internet was relatively easy for learners with sight, many students with visual impairment might have difficulty in accessing the internet without special support. This view brings to the fore the need for specialist computer and assistive technology instructor for students with visual impairments in educational institutions to ensure that they benefit from the educational advantages of computer technology.

To investigate the computer competencies among students with disabilities at UEW, Teye (2014) randomly sampled 46 students who responded to a 25-item Likert type questionnaire. Data analysis was done using descriptive statistical methods, involving the generation of percentages on frequency counts. The independent samples t-test and the Pearson product-moment correlation analyses were also used for inferential statistical analyses. Teye identified students' difficulty with access to computers and the inadequacy of computer training as barriers to computer use among the participants. The author also found that an individual's knowledge about computers di not necessarily



result in the possession of skills for using computers. Another outcome of the study was that skills possessed by students are influenced by their prior experience with computers, and also with specific computing activities, such as word processing and internet browsing. Teye recommended that management of UEW consider recruiting qualified and competent ICT personnel to assist the students in using the computer and take charge of the technology-related needs of students with disabilities. Tella and Mutula (2008) found that students with higher computer literacy were more inclined to use computers and online library resources. The current study seeks to find out the experiences of students with visual impairment regard the support they receive in the use of computer and other assistive technology in a public university in Ghana.

#### 2.4.3 Note-taking support for students with visual impairments

Eksheir and Kolin (2015) asserted that note-taking is one of the most frequently used disability accommodations on college and university campuses. Note-takers are peers or professionals who handwrite the notes that are provided to students with disabilities in mainstreamed classrooms (Stinson, Elliot, Kelly & Liu, 2009). A notetaker attends each lecture with the student with disability, takes extensive notes during lecture sessions and explains or clarifies notes to the student after lecture when necessary. Note-takers can accompany students with visual impairments to lecture halls to take notes for those who can read print or tape record lectures for students with visual impairments. Students with visual impairments face challenges recording important information and at the same time listening attentively to the lecturer during class session. The service of a note-taker who is allowed to record information at the lecture hall becomes important to students with visual impairments. In the absence of a human support in the area of note

taking, some disability support centres provide students with visual impairments with Braille Personal Note-takers. Braille Personal Note-takers, according to Lewis and Doorlag (2011), are "portable electronic devices that allow students who are blind to take notes in class, complete written assignments and write answers to examination questions" (p. 309).

## **2.5 Access to Library Facilities by Students with Visual Impairments.**

University libraries play a critical role in the academic lives of students and staff. The library is an important resource centre where students are expected to access a wide range of academic information and enrich their learning experiences (Gebrehiwot, 2015). The libraries in the universities provide relevant information resources for teaching, learning and research (Agyen-Gyasi, 2008) yet not all students are able to access library resources. Gebrehiwot has indicated that in many of the studies that investigated the experiences of students with disabilities, there was evidence that libraries were not organized in such a way that they would satisfy the needs of those students. Baro and Fyneman (2009) found in their study of information literacy among undergraduate students that most students in Nigerian universities lacked the sophisticated skills that were needed to exploit the university libraries information resources, both print and electronic. Nonetheless, according to Agyen-Gyasi, as well as Baro and Zoukemefa, the ability to use libraries and information sources, both print and electronic, is becoming an integral part of undergraduate study in most African countries.

Some authors believe that the inability of students to use library resources is due to insufficient education of students on how to access library resources. Hooks,

Rahkonen, Clouser, Heider, Fowler (2007) remark that, "teaching students how to use the university library resources had been a challenge for academic librarians for most of the twentieth century and has emerged as a high priority for academic librarians in the twenty-first century as well." (p. 1).

Fidzani (1995) expressed the need for library orientation and user education indicating that it:

- introduces students to facilities and resources in the library;
- develops library skills;
- makes students independent users and learners in the library;
- develops capabilities as self-sufficient users;
- establishes the library as the centre of academic activity;
- provides basic understanding of the library so that users can make efficient use of library material and services;
- educates users about information sources and resources and how to exploit such resources effectively and efficiently.

In the Agyen-Gyasi (2008) study, user education programmes for newly-admitted students at the Kwame Nkrumah University of Science and Technology (KNUST) Library in Ghana was examined. The author identified some problems the library faces in user-education programmes as students' lack of interest to participate in the programme, lack of personnel in the libraries, training needs of librarians, irregular internet connectivity and financial constraints.

In another study which sought to establish the extent to which library and information services were available for students with visual impairments at University of Ghana, Legon, Ayiah (2007) found out that students with visual impairments were dissatisfied with library and information services provided. The case study which involved students with visual impairments, braille transcribers, librarians and policy makers in the institution as participants revealed that the premises housing library and information services for students with visual impairments was not fully accessible to the participants. Ayiah further found out that brailled materials on the shelves were outdated and not relevant in meeting the information needs of students with visual impairments. The author further found the need for special training for all staff who serve students with visual impairments. Generally, students with visual impairments appear to have difficulties accessing library facilities ranging from physical infrastructure, print materials and electronic information. Therefore, the literature has further been reviewed under two sub-topics namely: (1) access to library building and furniture, and (2) access to learning materials both print and electronic.

#### 2.5.1 Access to library building and furniture

Clearly, students with visual impairments encounter great difficulties in accessing the physical infrastructure in their environments. Gustafson-Pearce, Billett and Cecelja (2005) contended that, to a student with visual impairment, the physical world presents many challenges. The authors further pointed out that, for a student with impaired sight, finding the way through a complex environment is fraught with dangers, both actual and imaginary.

Most educational institutions handicap their students with disabilities due to lack of modifications in the environment to aid accessibility. Students with disabilities must gain complete access to school facilities such as the library for improved participation in learning and, consequently, enhance their academic and social learning outcomes (Mastropieri & Scruggs, 2000; O'Brien, 1998). This emphasizes the relationship between access to physical facilities and academic and social advancement. Shevlin, Kenny and McNeela (2002) conducted a qualitative study in Irish post-primary schools with 16 participants who were taken through a semi-structured interview. The findings revealed that access to physical facilities such as the library, lecture halls, and access to curricular did not appear to be addressed in formal school policy. Participants had to continually inform others of their needs and ask for help, which put pressure on their social lives, their sense of others and of self. This indicates that access to physical infrastructure in educational institutions remains a nightmare to students with visual impairments.

Samson (2011) conducted a study on the best practices for serving students with disabilities in eight academic libraries in four Rocky Mountain States in the USA. Samson interviewed the librarians directly responsible for library services to students with disabilities to establish how their practices reflected the 1990 Americans with Disabilities Act (ADA) and complied with the 2010 Department of Justice regulations. Findings revealed that the needs of students with disabilities were being met as students were able to physically access facilities with little or no difficulties. All libraries had either been retrofitted to accommodate students with disabilities and new structures were being constructed according to universal design standards. In the effort of the libraries to meet the physical accessibility needs of students with disabilities, Samson found that the

libraries had multiple entryways with ramps, elevators, adjustable computer tables, universal adjustable keyboards, accessible study desks, stand-up study or computer tables, adjustable seating and aisles for easy movement. The author also noted that 87.5% of the libraries collaborated with their Office of Disability Services in providing assistive technology to promote access. The current study, however, focused on students with visual impairments in one public university in Ghana.

In another study, Ekwelem (2013) organized a focus group interview for 194 library users with disabilities (visually impaired and mobility challenged) in 9 universities in Enugu State, Nigeria. The responses to interview items regarding accessibility to the library building and furniture revealed that there was lack of facilities such as adjustable table and keyboard tray, ramps, lift with disabled friendly features and automatic-opening doors. This made the respondents perceive among others that libraries were established to serve only non-disabled users and that there was inadequate knowledge of the needs of those who did not or could not use the library. The current study differs from Ekwelem's study because the current study did not include students with physical challenges.

#### 2.5.2 Access to electronic and print learning materials

According to Majinge and Stilwell (2013), information is essential to all human beings and every library's aim is to provide the right information at the right time and in the right format to its patrons regardless of race, religion, age, nationality and language. Academic libraries should be designed to be universally accessible, and should have equipment in place to enable all users including students with disabilities to get

maximum benefit from the library's materials and services (Deines-Jones, 2007). It is therefore obligatory on library management in universities to provide the same level of service to students with disabilities as is provided to users without disabilities (Ekwelem, 2013). In order to meet the needs of visually impaired library users in university, some authors assert that libraries must provide appropriate selection of books in formats that are usable by students with visual impairments such as large print, audio-books, talking books, and Braille materials (Gunde, 1991; Majinge and Stilwell, 2013). However, Ndumbaro (2009), Majinge and Stilwell (2013) and Tungaraza (2010) found that students with visual impairments in the Universities libraries do not have books in Braille or large print format causing them to depend on human readers for information.

Higgins (2013) noted that the advent of internet and World Wide Web in the late 1980s and early 1990s created new avenues for the dissemination of information and that access to information has evolved from being restricted to physical space to being available through remote access. This has provided the opportunity for students including students with disabilities to access information anywhere at any time (Dadzie, 2005; Ekwelem, 2013). Universities' libraries have the responsibility to train students on how to access electronic information that are available to them.

In a study conducted by Dadzie (2007), an acting librarian at the University of Cape Coast stressed the importance of Information Retrieval Course (IRC) library staff offer to students. The participant said the IRC was to equip students with skills to enable them to access and retrieve information in traditional, hybrid and digital libraries. Interestingly, the librarian at the University of Ghana Balme Library disclosed in the study that information skills training which included training on the available electronic

resources (e-resources) in the library and how to effectively search the databases were only offered to graduate students at the beginning of the academic year as part of library literacy. Meanwhile an earlier study which focused on the training needs of users of three public university libraries in Malaysia with regard to electronic resources concluded that there is the need to design a training programme that would enhance the ability of all students to use electronic resources (Basri, 2003). Academic libraries need to have effective internet connectivity (Baro & Asaba, 2010) in this era of electronic databases where the web is the first place information users look for information (Stuart, 2009). For students with visual impairment to benefit from electronic library resources computers connected to the internet and equipped with screen readers such as Window-Eyes are necessary.

Sunrich and Green (2006) conducted a survey on the programmes for students with visual impairments on the available assistive technologies for library patrons with visual impairment and the training programme in using available assistive technologies in 25 universities in United States. Out of the 6 institutions profiled, it was revealed that only one library provided 7 assistive technologies while the other institutions provided a maximum of two; namely, Kurzweil 1000 and JAWS, out of the 15 assistive technologies listed. The authors also found that students were not trained to use the available assistive technology and staff was also not trained to support students with visual impairment to use the assistive technology mainly due to budgetary constraints. In a similar study Agyen-Gyasi (2008) identified training needs of librarians, irregular internet connectivity and financial constraints as some problems facing the user education programme at the



KNUST Library Ghana which culminates into students' inability to use electronic resources.

The University of Education, Winneba has provided an online database (WINNOPAC) and e-resource for students to aid accessibility of information. In the study of computer competencies of students with disabilities at UEW, Teye (2014) found that students with disabilities have positive attitudes towards computers and that much of the skills possessed by the students was related to word processing activities. With 29 out of the 46 participants indicating that they could not search for information on the Internet, it is important to know how students with disabilities access the online database and other electronic resources of the university library.

## **2.6 Summary of Literature Review**

This chapter reviewed related literature on the research topic, empirical literature and the theoretical framework. The chapter was discussed under the following strands: social interactions pattern that exist among of students with visual impairments and their sighted peers, nature of academic interactions of students with visual impairments and their lecturers, the level of support students with visual impairments receive in mainstreamed settings and the extent to which students with visual impairments access library facilities. The theoretical framework was also discussed. There are few empirical studies that highlighted the experiences of students with visual impairments in tertiary institution.

## CHAPTER THREE

### METHODOLOGY

#### 3.0 Introduction

This chapter presents the methodology for the study. The areas covered were: research approach, research design, population, sample size, sampling techniques, instrumentation, validity, reliability, procedure for data collection, method of data analysis, and ethical considerations.

#### 3.1 Research Approach

The study employed the qualitative research approach to explore the experiences of students with visual impairments at UEW. Qualitative research involves an interaction between the researcher and the researched in the socio-cultural context of participants of a study (Kusi, 2012). Qualitative approach was appropriate for the study because the study explored participants' lived experiences with regards to participants' experiences in social interaction with sighted peers, academic interaction with the lecturers, the level of support received from the resource centre and access to library facilities in the university. Findings of the study were arrived at through the exploration of participants' experiences using interviews but not by statistical procedures and quantification. In qualitative research, Bryman (2008) and Creswell (2003) suggested that participants are expected to give detailed rather than general information on the features of the specific phenomenon under investigation. Qualitative research approach considers collecting information from participants in order to understand the phenomenon under the study from the perspectives of those involved in the research (Ary, Jacobs & Sorensen, 2010). The current study

therefore, sought to use the qualitative approach, in order to have a detailed account of the experiences of students with visual impairments from the students' own perspective.

### **3.2 Research Design**

This research employed phenomenology as the research design to explore the experiences of students with visual impairments at UEW. Phenomenology assumes that there exists in every experience a true essence or structure. A phenomenological study describes the meaning of individuals lived experiences of a phenomenon. This description consists of what they experienced and how they experienced it (Creswell, 2012). Ary, Jacobs, Sorensen, and Razavieh (2010) explained that phenomenological studies are meant to explore participants' perspective and experiences of a phenomenon. Creswell (2007, 2012) noted that the basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence, that is, a grasp of the very nature of the things.

Vanderstoep and Johnston (2009) stated that phenomenology asks for the very nature of a phenomenon, for that which makes a something what it is, and without which it could not be what it is. A phenomenologist sees things as they really are and establishes the meanings of things through illumination and explanation rather than through taxonomic approaches or abstractions, and develops theories through the dialogic relationships of researcher to researched (Cohen, Manion & Morrison, 2007). The objective of this study was to find out the experiences of students with visual impairments at UEW. It was therefore imperative to determine the students' experiences through a phenomenological study. The researcher conducted focus-group interviews on

respondents to give the respondent the opportunity to express their experiences in the university.

### 3.3 Population

The population for the study was 62 students with visual impairments (SWVI) at UEW. They comprised of 46 males and 16 females aged between 21 and 45 years with an average age of 28 years. They were undergraduate regular students offering courses in the Departments of Special Education, Social Studies Education, Political Science Education, History Education, French Education, English Education and Psychology and Education. The population is presented in Table 1.

**Table 1. Population Distribution of Respondents**

<b>Department</b>	<b>Population</b>	<b>Male SWVI</b>	<b>Female SWVI</b>
Special Education	36	23	13
Social Studies Education	19	17	2
Political Science Education	2	2	0
History Education	1	1	0
Psychology and Education	1	0	1
English Education	2	2	0
French Education	1	1	0
<b>Total</b>	<b>62</b>	<b>46</b>	<b>16</b>

*Source: Researcher's Computations from field Data, September, 2016*

*Key: SWVI = Students with Visual Impairments*

### 3.4 Sample Size

The sample size for the study was 30 students with visual impairments, comprised of 16 students with blindness and 14 students with low vision at UEW. The sample further consisted of 21 males and 9 female students between the ages of 21 and 41 years. Seventeen of the participants were second-year students (Level 200), 10 were third-year students (Level 300) and 3 were fourth-year students (Level 400). First-year students (Level 100) students with visual impairments were not included in the study because the study considered only students with visual impairments who had more than one year learning experience in the university. The participants were offering 4-year bachelor's degree programmes in Departments of Special Education, Social Studies Education, Political Science Education, English Education and French Education. Table 2 presents the sample size of the study.

**Table 2: The Sample Size involved in the study**

<b>Department</b>	<b>Sample Size</b>	<b>Students with Blindness</b>	<b>Students with Low Vision</b>
Special Education	18	8	10
Social Studies Education	8	4	4
Political Science Education	2	2	0
French Education	1	1	0
English Education	1	1	0
<b>Total</b>	<b>30</b>	<b>16</b>	<b>14</b>

*Source: Researcher's Computations from field Data, September, 2016*

### 3.5 Sampling Technique

The researcher used purposive sampling technique to select the participants for the study. The researcher purposefully chose the sample because they have been diagnosed to as having visual impairments within the past 15 years and have been in the

institution for more than one academic year, hence, were in the best position to provide relevant information relating to their experiences. Avoke (2005) contended that in purposive sampling technique the researcher handpicks the cases to be included in the sample on the basis of their judgment of typicality. Fraenkel and Wallen (2009) also explained that purposive sampling technique is a technique in which researchers use their judgment to select a sample that they believe, based on prior information, will provide the data they need. To draw a purposive sample, a researcher begins with specific perspectives in mind that he or she wishes to examine and then seeks out research participants who cover that full range of perspectives. Some scholars argue that purposive sampling techniques are more suitable for studies located within the qualitative framework than studies that fall within the quantitative framework (Creswell, 2005, 2012; Gall, Gall, & Borg, 2007; Kusi, 2012).

### **3.6 Instrumentation**

A semi-structured interview guide was used to elicit data from the participants for the study. The researcher chose focus group interviews because it encourages participants to speak out so that the researcher can learn what the range of views of participants are, in order to generate a collective rather than an individual view of a phenomena (Bogdan & Biklen, 2007; Cohen, et al., 2007). O'Donoghue (2007) described a focus group interview as a face-to-face encounter between the researcher and a group of participants with the focus on finding out participants' perspectives on their lives, experiences or situations as expressed in their own words on the main variables raised in each of the research questions. Fraenkel and Wallen (2009) noted that interview is one of the main

techniques used to collect data in qualitative research. In the interviews, the researcher included probes and prompts to aid further exploration of his own line of questioning. The probes and prompts helped to explore and develop views of respondents and to prevent respondents from going off the main line of questioning (Rodgers, 1999). The interview questions were guided by the themes in the research questions raised, namely: pattern of social interaction between students with visual impairments and their sighted peers, nature of academic interactions between students with visual impairments and their lecturers, the level of support students with visual impairments receive from the resource centre and how students with visual impairments access library facilities.

### **3.7 Validity**

Vanderstoep and Johnston (2009) explained validity as the ability of an instrument to measure what it is intended to measure. Content validity was adopted to ensure the validity of the interview items. In this regard, the semi-structured interview items were developed to cover the key themes raised in the research questions. Macmillan and Schumacher (2001) indicated that participants' in-depth interviews need to be conducted in natural settings to reflect the reality of life experiences more accurately than do laboratory settings. In this study, however, the focused group interviews were conducted in the natural setting of the participants which is the resource centre for students with special needs in the university.

### **3.8 Reliability**

According to Creswell (2012), reliability means that scores from an instrument are stable and consistent. Creswell further indicated that scores should be nearly the same when researchers administer the instrument multiple times at different times. To ensure reliability of the interview items, the items were given for peer review. Again, a pre-test interview was conducted on three students with visual impairment to detect ambiguities and weaknesses in the items for correction and modification so as to improve the internal consistency of the instrument. The items were further presented to researchers' supervisor, a professional in the field of the education of the visually impaired for expert judgment, suggestions and approval.

### **3.9 Procedure for Data Collection**

The researcher sought permission from the various Heads of Department of participants involved in the study. Permission was also sought from the Coordinator of the Resource Centre for Students with Special Needs who informed the resource persons in order to elicit their cooperation and assistance. Creswell (2012) maintained that it is important to respect the site where a research takes place. This respect, according to Creswell, is shown by gaining permission before entering the site. Permission to the site was facilitated by an introductory letter that the researcher requested from the Department of Special Education, UEW.

A pre-visit was made by the researcher to the Resource Centre for Students with Special Needs to explain the purpose of the study to participants. Participants were assured of the necessary confidentiality of information to be gathered and to book



appointments with them. Due to the different schedules of participants' academic and social activities, appointments to meet focus group members were scheduled on Saturdays where participants had time to meet. Focus group semi-structured interviews involving 6 students with visual impairments in each of the 5 groups were conducted on the sample with interview items based on the research questions that were raised. The interviews were conducted by the researcher in the presence of a staff at the Resource Centre for Students with Special Needs on 29<sup>th</sup> October, 2016, 5<sup>th</sup> November, 2016, 12<sup>th</sup> November, 2016, 19<sup>th</sup> November, 2016 and 26<sup>th</sup> November, 2016. The interview sessions which lasted between 35 to 45 minutes each were conducted at the resource room for students with visual impairments.

The participants were given the opportunity to express their feelings and experiences without undue pressure on them. The interview was tape recorded with the permission of participants and transcribed for analysis. Before analysis of the data, the researcher scheduled another meeting with the focus groups and the transcripts were read to the participants to confirm that the transcripts represented the views they shared.

### **3.10 Data Analysis**

The data were analyzed qualitatively using narrative themes from the interview data recorded and transcribed. Transcripts of the interview data were given codes as Group 1, Group 2, Group 3, Group 4 and Group 5 for identification of responses from the various groups. Group 4 and Group 5 involved students with low vision whereas Groups 1, 2 and 3 involved students who were blind. Fraenkel and Wallen (2009) noted that the first step in coding data to assign identity numbers to every group from whom data has

been collected. Colors were further used to code the focused group interview data from the focus groups for categorization to know the themes that emerged from each research question (Bogdan & Biklen, 2007; Creswell, 2012; Dogbe, 2015). The green, blue, red, yellow, pink, purple, orange, cyan, violet and brown colors were used to highlight and code the categories from the data. The ten colors facilitated the categorization of data from which the themes emerged. According to Bogdan and Biklen, coding allows for the categories and patterns emerging from data to be decided in advance, and facilitates the interpretation of smaller units since the analysis begins with the researcher reading all of the data to gain the sense of the whole. Verbatim expressions of the students were used in reporting the data where necessary.

### **3.11 Ethical Considerations**

Ethical considerations are very necessary in conducting any type of research with human subjects to protect the welfare and rights of research participants (Kimmel, 1996). To ensure that participants' health, safety, respect, and fidelity is sustained, the researcher sort for verbal consent of participants, that is, students with visual impairments in the university had the opportunity to voluntarily participate in the study. The researcher explained to participants that their names will not be needed in the course of data collection to ensure confidentiality. Before the researcher began the interviews, he ensured that the purpose of the study was understood by the participants and also treated the rights of the respondents with utmost care. Again, the researcher sought the permission of participants to use the tape recorder during the interview session in order to capture detailed data while concentrating on listening and prompting participants. The

participants were promised that they could have access to the findings of the study and that they could contact the researcher if they had problems concerning this study.



## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### 4.0 Introduction

This chapter presents the results and discussions of findings from the study. The analysis reflected on the themes that emerged from the interview data collected on the themes of the research questions.

#### 4.1 Results

##### **4.1.1 Research Question 1: What is the pattern of social interaction that exists between students with visual impairments and their sighted peers at UEW?**

To answer this research question, the data collected during focus group interviews were used. Three themes that emerged from the data – pattern of friendship with the sighted peers, cooperative interaction with the sighted peers, and involvement in extra-curricular activities were used for the analysis.

##### Pattern of friendship with sighted peers

Per the friendship pattern between students with visual impairments and their sighted peers in the university, the focus group interaction revealed that students with visual impairments found it easy making friends with the sighted peers. The respondents indicated that the sighted students were friendly and gave them assistance as and when demanded. A student affirmed this assertion in the following comments:

*It is easy to make friends with the sighted. Both male and female sighted students usually approach me nicely in class and at social grounds to ask*

*for my name. Some even request to be friends with me. I have a lot of friends who help me in diverse ways (Verbatim expression by a student in Group 2).*

Another student also commented this way:

*I have many friends both in my department and in other departments who I consult for help when I have problems in my course work (Verbatim expression by a student in Group 1).*

One student also said that:

*I don't have any problem making friends with the sighted. It is so easy. Sometimes when you get to class and you need assistance you may not even say it, they themselves will come and assist you. Through that I take their contacts and other information about them so that when I need their assistance I can call them to find out if they can offer me some specific assistance (Verbatim expression by a student in Group 3).*

Another student had this to say:

*It is easy for me to make friends with the sighted. I have a good number of friends in the university. In fact I can say most students with visual impairments have many sighted friends and they help us in our learning (Verbatim expression by a student in Group 4).*

Another student added this:

*Most of the sighted students are friendly to us. Only a few are unfriendly to us but we understand because of our knowledge about individual differences. Personally, I have many friends in the university (Verbatim expression by a student in Group 5).*

Although it was evident from the analysis of the comments of the students that, they found it easy making friends with the sighted and had many sighted friends in the

university, they expressed that they had fewer intimate friends among them. The students stressed that they are able to confide in their intimate sighted friends and share vital information and resources with them. Two students remarked as follows:

*Even though some sighted colleagues support us to a greater extent, some of them cannot be trusted. It is only a few that are trustworthy. I have two sighted friends I trust and share most important information with. You will always see me with one or both of them either learning or eating together (Verbatim expression by a student in Group 2).*

*It is not all sighted students you can share your secrets with. You have to study them and know those you can be intimate with and who can keep your secrets. We have made few intimate friends and those we play with and can assist us in other ways (Verbatim expression by a student in Group 4).*

One student also said this:

*I don't have trust in most of the sighted friends except one whom I met last semester who is in the Department of Graphic Design. Because of me, he arranged to stay in the same room with me so that he can help me. He is kind and I trust him very much. We share vital information and also learn together (Verbatim expression by a student in Group 1).*

Another student remarked that:

*As for me, I have only one intimate friend among the sighted. Even with her, I had to try her with some information first before I could trust her because most of them are not secretive (Verbatim expression by a student in Group 5).*

One student added that:

*I have only one intimate sighted friend. For this friend I trust him and so I share some information I don't share with other friends (Verbatim expression by a student in Group 3).*

It seems obvious that there is some form of friendship with the sighted students in the university as shown by the comments from the students with visual impairments. From the comments of the students, friendship with the sighted centred on providing assistance of some sort. The students viewed majority of the sighted friends as not trustworthy to promote intimate friendship.

#### Cooperative interaction patterns with sighted peers

This theme elicited data on students' experiences of cooperative interaction with the sighted students. The students mentioned various elements that defined the pattern of interactions as willingness of the sighted to work with them in groups. One student noted that:

*The sighted colleagues in my department have been involving us in group works. They always call to inform us on the time and place of meeting when we have a group task to execute. Even though we may not have anything much to bring on board, they want us to be there so that we can also listen to whatever they will say and learn together. I must say I learn much from such interactions so I don't miss such opportunities (Verbatim expression by a student in Group 3).*

Another student remarked that:

*In some of the groups I find myself with the sighted, they involve me. They call me and ask me to write my points on the question given so that we can discuss them together with what they also have. When they get to know that you have some good information to share, they constantly call on you*

*when there is a group assignment to do. In level 100 we formed a study group and they always came for me to discussion because when we meet I play the lecture notes I recorded in class for them to hear (Verbatim expression by a student in Group 1).*

One student had this to say:

*When we are given assignment to perform in groups, the sighted in my class always make sure we have groups so that we can also participate in the group work (Verbatim expression by a student in Group 5).*

Another student added,

*The sighted come for me from my hostel for group discussions when they realize I am not coming early. Even when I am not around and they do the work, they bring a copy to me and discuss the content with me. But I always try to be there because I benefit more from that (Verbatim expression by a student in Group 4).*

The analysis of the student's comments indicated that the sighted students showed interest in the involvement of students with visual impairments in cooperative activities. However, one student revealed that he was not involved in group work. The student indicated the unwillingness of sighted students to ensure their presence in doing group work and discussions. The student noted:

*We are neglected from participating in group work. The sighted will not get close to you to take your number so that when it is time for discussion they will call you. When you ask them to tell you when they are going to do the work too they will not do it. They will go and do it and just add your name and index number. They always assume we don't have anything to share. It makes me feel bad because if that question appears in examination I may not be able to do it (Verbatim expression by a student in Group 2).*



It is clear that there was a mixed opinion regarding participation in cooperative activities or group work but by and large, the students with visual impairments thought that they were conditionally involved in group activities by most of their sighted colleagues. The respondents believed that sighted students only ensured their participation in group work if students without visual impairments could gain something from them. Nonetheless, it was obvious from the comments of the respondents that they always wanted to be at group meetings.

#### Participation in extra-curricular activities

The students indicate that they are not considered in the organization of most extra-curricular activities. Majority of the respondents felt they were not given the chance to participate in extra-curricular activities such as sports and hall week celebration. Two students commented:

*For participation in inter-hall sporting and hall week celebration activities, it is sad to note that we are not much involved which is bad. We have complained about it to our hall executives severally but they do not listen to us. They don't know what we can do and they do not seek our views regarding the organization of these extra-curricular activities. They think we cannot do anything so they do not worry themselves to involve us (Verbatim expression by a student in Group 3).*

*Our participation in hall week celebrations is not good at all. Even when you avail yourself to participate in any of the activities like float, the sighted are not willing to support you because they think holding your hand and moving with you will be a burden of him or her. Some even frighten us that floats are dangerous (Verbatim expression by a student in Group 1).*

One student remarked that:

*In fact, for sports we don't get the support we need to be involved in it. The sighted executives will not tell you about any upcoming inter hall games or week celebration and find out what you can participate in* (Verbatim expression by a student in Group 4).

Another student also said this:

*Our experiences regarding participation in sporting activities and hall week celebrations are not good at all. The sighted do not engage us in any of the events and activities during these periods. Last time when I confronted one of the hall executive about our non-involvement, she told me that they are afraid we will hurt ourselves participating in events like float and cooking competition* (Verbatim expression by a student in Group 5).

Another student added:

*They don't involve us in the inter-halls sporting activities because they don't have the equipment. You know for us we need specialized equipment. They also don't want to buy the equipment for us because they say it is costly. Even for the university games we didn't really have all the equipment; they were not well adapted for us. So we had the chance to participate in only one game which is goal ball* (Verbatim expression by a student in Group 2).

It could be deduced from the comments of the respondents that, they are displeased with their exclusion in hall and sporting activities in the university. It would also be seen that the students have severally registered their displeasure to hall executives and university authorities but to no avail.

However, the students revealed that they enjoy their involvement in religious activities in the university. One student noted:

*As for church service there are church members who come for me to go to church. At church we sit together with the sighted and we are also given the opportunity to join the instrumentalists or choir if you know how to sing or play any instruments (Verbatim expression by a student in Group 3).*

Three students commented this way:

*Our participation in religious activities is good. Sometimes when we are going out for a programme, the sighted come for us so that we go together. We the Muslims have been going to the mosque regularly and even one of our visually impaired colleague is now the Ghana Muslim Students Associations' Deputy Secretary (Verbatim expression by a student in Group 4)*

*With regards to church service it is good for me. When it is time for church I have some friends who usually call and come for me to go to church. I am involved in the church activities such as dancing, singing and more. I have fun at church very much. (Verbatim expression by a student in Group 2).*

*As for church service I enjoy my participation in activities like Bible studies and singing. It is interdenominational church service that I don't usually attend because I don't enjoy the participation I enjoy at my mother church (Verbatim expression by a student in Group 1).*

Another student had this to say:

*I must say I appreciate my involvement in church programmes. I am part of the singing group and the sighted students come for me to rehearsals and programmes outside campus. Our church has even appointed some*

*sighted colleagues who see to our welfare and participation in church activities* (Verbatim expression by a student in Group 5).

The analysis of the students' comments indicated that sighted students did not involve them in sporting and hall week celebration activities. It was evident that the sighted students' lacked knowledge of the capabilities students with visual impairments possess in extra-curricular activities and commitment to ensure their participation in such activities thereby resulting in their exclusion. Although the students expressed their satisfaction in the participation of religious activities, the students registered their displeasure with involvement in majority of the extra-curricular activities considered in the study.

#### **4.1.2 Research Question 2: What is the nature of academic interactions between students with visual impairments and their lecturers at UEW?**

To answer this research question, the interview data collected were used. The themes identified from interactions with the focus groups regarding the nature of academic interactions with lecturers were: method of instruction, students' involvement in class and assessment of students.

##### Methods of instruction

In expressing their views about how the lecturers attend to their needs during the teaching and learning process, the students revealed that most instructors do not consider their condition. The respondents expressed their dissatisfaction with the way they were treated during lectures. Some of the students remarked these ways:

*When the lecturers are teaching sometimes they forget that there are students who cannot see well in the lecture theatre. Sometimes they draw or illustrate tables on the board without explaining it for us to understand or to also get a picture of it (Verbatim expression by a student in Group 4).*

*Most of the time when lecturers ask some questions and the students bring their ideas sometimes the lecturer does not tell us which idea is right or wrong. Also some of the lecturers use PowerPoint slides and they don't read all what is on it when teaching which makes us lose out because the others can see. Sometimes he or she will say the next point talks about this but my question is what is the next point? When you request for the slides too they will not give them to you. (Verbatim expression by a student in Group 2)*

Two other students had this to say:

*For instance, when it comes to ICT which is my second area course, the lecturers sometimes display pictures during teaching. Sometimes the sighted students will be laughing at the picture and we will be there not knowing what is going on. We always call their attention but they always also forget about us. I quite remember one of the lecturers whenever he brings a picture to class he tells one of the students to describe it to us but because the students also do not know how to describe it well to our understanding they will just be saying something which may not actually be describing the picture (Verbatim expression by a student in Group 1).*

*Sometimes too they write some terminologies on the board unless you cry out for the lecturer to either spell the terminology or read what is written on the board for you he or she will not remember to do that for you. (Verbatim expression by a student in Group 3).*

Another student commented this way:

*Most of our lecturers especially those who teach us the educational course do not do much to accommodate us in class apart from spelling of words which they only do upon our request (Verbatim expression by a student in Group 5).*

It is clear from the comments of the students that, they were not satisfied with how most of their lecturers taught them in class. The respondents expressed their dislike for the use of PowerPoint slides, diagrams and pictures in the teaching process.

The respondents further revealed that occasional spelling of words or description of what was written or displayed on the board was the only modification made for them by some lecturers. The students indicated that lecturers did not provide course materials in accessible formats for them. Two students noted:

*Some lecturers sometimes spell or write what they have displayed on the board to us or ask a sighted friend to describe it for us. But as for the learning materials they just sell the print to us, whether you can access the information or not they don't care. Most handouts they give too are photocopied ones which are not clear enough to be given to the resource persons to scan for us so the handout becomes not useful to the blind (Verbatim expression by a student in Group 3).*

*In fact ensuring that we get a seat in the front row they do but some of the lecturers don't speak loud and will also be moving around in the class while teaching. Meanwhile there is no any public address system to amplify the lecture. When this happens our recording is not good so when we play we don't hear anything. Sometimes too some of the lecturers draw some phonetic sound in our hands when teaching us. It doesn't help much in perceiving that sign but we have to take it like that and ask some of our*

*sighted colleagues to describe it well to us after class (Verbatim expression by a student in Group 1).*

One student commented this way:

*We those doing ICT as our second area course do not benefit from any adaptation. Almost all the lecturers do not know how to teach the visually impaired. I think they can design some course in an adapted way so that a special lecturer will teach us for us to benefit from the lessons (Verbatim expression by a student in Group 2).*

Another student added:

*In fact, getting learning materials in accessible formats from lecturers is the greatest challenge we have with them. Even when we approach some them for a soft copy to read on our computers, they usually tell us they cannot give them out (Verbatim expression by a student in Group 5).*

One student also noted that:

*I can't point to anything the lecturers do to accommodate us in the class apart from sometimes spelling what is written of the board for us. There is one lecturer in department of special education where I find myself who sometimes comes to class with embossed and bold print learning materials concerning his course for us (Verbatim expression by a student in Group 4).*

From the analysis of the students' comments, it is conspicuous that most instructors did not understand the implications of visual impairments in the teaching and learning process. It is evident that the students with visual impairments did not receive any form of modification in the course of instruction in class apart from spellings of words or terminologies.

Students' involvement in class interaction

Another theme that emerged from the data was students' involvement in lecture hall interaction. In terms of student' involvement in the lecture hall, the students expressed some level of satisfaction. The respondents were pleased with the recognition given to them by the instructors in the lecture hall. Two students remarked:

*In most cases lecturers call us to answer some questions or contribute to some discussions. Most of the lecturers believe we also know something we can share and they appreciate our contributions and respect our views. I will say our involvement in class is good. But some of the lecturers don't know our names which I think is not good and does not promote complete involvement in the lesson. If they know our names they can create jokes with it in class as they do with that of the sighted. We like it, it makes us feel recognized in the class (Verbatim expression by a student in Group 4).*

*Some of the lecturers are trying their best to involve us. Some will call you by your name and ask you to respond to some questions or explain something to the class. Even when we raise our hands to answer questions too, they usually call us first and always want us to answer. This makes us feel that we have been involved and are part of the class (Verbatim expression by a student in Group 3).*

One student had this to say:

*Majority of the lecturers do involve us in class activities. There is a particular lecturer who will always ensure that he asks each of us a question before we close from his class. As a visually impaired, you will not leave his class without responding to two or more questions. So whenever I am going to his class I am always prepared (Verbatim expression by a student in Group 5).*



Another student remarked that:

*In my department for instance there is a lecturer who always want to see us involved in class interaction. Even if he gives group assignments he will ensure that the visually impaired students in the class are in different group and also we are part of the members that will orally present the work (Verbatim expression by a student in Group 2).*

Another student added that:

*With our involvement in class I will commend some of the lecturers. They encourage us and give us the opportunity to respond to question in class and they give detailed explanation to questions we ask. Some make sure that we have a group when we are given something to do in the classroom (Verbatim expression by a student in Group 1).*

From the views expressed by the students, it could be deduced that the students appreciated the calling and use of their names in classroom discussion and illustrations. Students' involvement by way of being called to respond to questions in class enhances their learning and motivates them to prepare before coming to class. It is clear that majority of the instructors make efforts at ensuring that students with visual impairments are involved in the classroom interactions. It could be gathered that the lecturers employ group discussions, group and individual assignments and projects to promote learning.

### Assessment of students

Assessment of students with visual impairments was another theme that surfaced from the analysis of students' comments. Incidences of frustration regarding the process of assessment of learning were reported by the students during the interview. For example, two students expressed their views this way:

*We mostly write our quizzes and end of semester examinations at the Resource Centre for Students with Special Needs. When it is time to write an exam, we go to the resource centre but in most cases the lecturer does not bring the questions early so that the resource persons can braille or enlarge it for us. This makes us frustrated because sometimes the sighted will finish their quiz before we start at the centre. Sometimes, we even forget what we have learnt because of the delays and frustration (Verbatim expression by a student in Group 1).*

*As for assessment, it is the delay in receiving the questions from the lecturers by the resource persons that is the problem. On two occasions too that we wrote the quizzes together with the sighted in the classroom, the lecturer did not bring it early to the resource persons to be transcribed for them. So we had our marks a week after the sighted had theirs. This always put us in anxiety (Verbatim expression by a student in Group 3)*

Two other students added:

*In most cases the lecturers and even the exams officers forget to bring the examination questions to the resource centre where we write our examinations. On some occasions we received the questions at the resource centre when our sighted colleagues have finish answering those questions. These delays affects us so much (Verbatim expression by a student in Group 3)*

*In doing take home assignment, most of the lecturers do not give us extra time to submit our work even though we have to finish and send it to the resource centre to be transcribed before we submit it. So it means we actually have to do the work in a reduced time period which is not comfortable at all (Verbatim expression by a student in Group 3)*

Another student noted that:

*Some of the lecturers will not come for the transcribed examination scripts early from the resource centre so we don't see our marks early. Sometimes you will go into your student information portal and they have given you incomplete in some courses (Verbatim expression by a student in Group 4)*

The respondents expressed some sort of frustration in the mode of assessment. It could be noted that delays in receiving quizzes and examination questions at the resource centre and lecturers' delays in picking up transcribed scripts were the major hindrances to their positive assessment experience.

With regards to the nature of examination items, three students expressed their feelings this way:

*Our quizzes and end of semester examination items are mostly devoid of tables and diagrams. I can remember that we had a diagram in the exams questions of the course Communication and Study Skills but we consulted the lecturer and he asked us to write not applicable to the blind. In cases where there are diagrams they usually give us alternative questions which asks us to describe something (Verbatim expression by a student in Group 2)*

*We always receive extra time when writing quizzes and examinations at the resource centre. Even in cases where we write the examinations together with the sighted students, the lecturers consider us and give us extra time to complete the work. It is only that their extra time is not enough which always put pressure on us (Verbatim expression by a student in Group 1).*

*Sometimes we study about some diagrams and mathematical concepts but because of us the lecturer will say it is because of your colleagues with visual impairment, I will not bring a diagram or mathematical question.*

*Sometimes too he will bring it and give us alternative questions (Verbatim expression by a student in Group 4)*

One student had this to say:

*As for the nature of examination items I don't have any problem with it. The questions are usually without pictures, tables and diagrams which is okay for us (Verbatim expression by a student in Group 5)*

Another student stated,

*We those in the languages department are sometimes presented with some question items that have some phonetic symbols. When that happens the resource persons pronounce those symbols for us or call the lecturer to assist them in pronouncing unfamiliar sounds. This sometimes make us use more time which the lecturers agree with (Verbatim expression by a student in Group 3)*

The respondents seemed to be satisfied to some extent with the nature of assessment items by indicating that examination questions were, in most cases, devoid of tables, mathematical concepts and diagrams. The respondents revealed that in cases where there were questions with diagrams and tables in examination questions, alternative questions were given to them.

As per opportunity to be assessed through different means, one students acknowledged that:

*In some few cases some lecturers give us alternative forms of assessment. Sometimes, they give us assignment instead of a quiz which the sighted colleagues did. Our continuous assessment mostly comprise of assessment results of individual assignments, group work and quizzes (Verbatim expression by a student in Group 1).*

*Yes, last semester like this, a lecturer assessed us orally. The fact also is that our assessment is not only based on results of quizzes and examination. The lecturers also include results of our individual and group assignments (Verbatim expression by a student in Group 2).*

Another student stated this:

*Sometimes if a group is to be assessed through oral presentation of assignment, most often they make the sighted read so that we answer most of the questions (Verbatim expression by a student in Group 3).*

One student expressed this:

*There was a case where a lecturer made us do a take home assignment while the sighted students dealt with that question as an open book test in class. It was okay for us because we were wondering how we will do the open book test since the books were not bold enough for us to manage to read (Verbatim expression by a student in Group 4).*

Another student added this:

*Some of the lecturers usually give us individual assignment instead of a quiz. I remember on one occasion a lecturer gave us a group project to present while our sighted colleague worked on a quiz (Verbatim expression by a student in Group 5)*

Though the respondents expressed some sort of displeasure with their experiences regarding assessment of learning in the university, it could be noted that the students were fairly satisfied with the nature of assessment items and opportunity for alternative medium of assessment. It could be noted that different mechanisms such as individual work, group work, quizzes and end of semester examinations were employed to assess the students.

### **4.1.3 Research Question 3: What level of support do students with visual impairments receive from the Resource Centre for Students with Special Needs at UEW?**

To answer this research question, the interview data collected were used. In the analysis of the responses of the students, the themes that emerged were: support students receive from the resource centre and effectiveness of the support received.

#### Support students receive from the resource centre

As regards the supports students with visual impairments receive from the Resource Centre for Students with Special Needs; it was revealed that the students benefited from variety of support depending on the needs of the students. These supports included scanning of print documents and books to be used on students' personal computers that had screen readers, embossment of learning materials, creation of audio versions of materials and teaching students how to use some assistive devices. One student expressed this:

*I will say the Resource Centre for Students with Special Needs provides academic support to us because they modify our print materials into accessible formats for us. Such as scanning of books, embossing of books and creating audio or recorded versions for us. They have also been assisting us in filling our bursary or scholarship forms (Verbatim expression by a student in Group 1).*

Another student noted that:

*We receive supports such as transcribing our works be it assignment, quiz or examinations into print so that the lecturers can mark and assess us. If we need information regarding some issues or happenings in the*

*university, we sometimes get it from them. For instance, issues concerning the university scholarship scheme. They also teach us how to use some assistive devices like recorders, magnifiers and closed circuit television systems (CCTV) (Verbatim expression by a student in Group 4).*

One student commented:

*They transcribe our works for us and also assist us in writing our examinations by embossing the questions for us and giving us extra time. They help us to get books in accessible format. Sometimes they help us solve some academic problems like having incomplete scores in our portals when we actually do write quizzes and examinations (Verbatim expression by a student in Group 3).*

Another student had this to say:

*We receive various kinds of support from the resource centre depending on our needs. Sometimes we request for enlarged prints, embossed materials or soft copies of learning materials when the need arises (Verbatim expression by a student in Group 5).*

One student added that:

*The staff at the resource centre arrange for hostel accommodation for all students with special needs and also help us to register our courses when we re-open. In some instances, the staff deploys some supporting staff like those on national service to accompany us to the hospital and the banks. As for embossing books for us and transcribing our assignment, it is a routine support we receive from them (Verbatim expression by a student in Group 2).*

It is clear from the analysis of comments of the students that their successful stay in the university is largely dependent on the level of support they receive from the resource centre. The respondents disclosed that the support they

receive from the resource centre went beyond only academic support with staff being concerned about their welfare and safety in the university. The analysis revealed that staff at the resource centre arranged for hostel accommodation for the students and assisted them in completing forms relating to scholarships and bursary.

#### Effectiveness of the supports received.

In terms of the effectiveness of the support received from the resource centre, the respondents revealed that it was of good quality. They indicated also that they received the support in good time, which enhanced their academic performance. Three students expressed their views as follows:

*I think the supports we receive are effective. I can rate the quality of the support to be 85 percent out of 100 because sometimes there are some minor mistakes. For the timeliness of the supports I will say they are good. To a large extent the staffs try to meets deadlines for us to pick our works. The worrying issue is that we have only one Perkins brailler and one embosser working at the centre so we don't get most of our work embossed (Verbatim expression by a student in Group 1).*

*In fact, I will say that the staff is effective at their work. Last time I was surprised when they were able to scan and edit three books for me in less than one week. I will say their transcription is good even though there is room for improvement. Some of the transcribed works have some small mistakes which I believe is because of the workload on them. I think the university should employ more staff (Verbatim expression by a student in Group 2).*

*Even though sometimes there are some minor mistakes in the materials they produce for us, I still think they are doing well because it is their*



*support that keeps us going and competing academically with our sighted mates (Verbatim expression by a student in Group 5).*

One student had this to say:

*For the scanning they have been doing it quite well for us and getting it in time depends on the quantity of the material and its print quality. But on a whole, their work is good and we mostly get it in time. For instance, if you bring a book of 300 pages, you don't expect it to be finished in a day. In most cases if they cannot finish quite early for you, they make sure they work on part of it so that you can start learning that while they work on the rest. The bold print they produce for us are also good (Verbatim expression by a student in Group 4).*

Another student added that:

*The support they provide to us is of good quality. I remember I brought a handout to be brailled for me a day before a quiz and I got it that same day. When I went to read too it was without mistakes I was happy because I thought because I put pressure on the resource person the work will be full of mistakes. Almost always too I get my work on time that is whenever we agree on a time to pick it I get it (Verbatim expression by a student in Group 3).*

It could be deduced from the responses of the respondents that, the support available to them were rendered timeously with an uncompromised quality.

When the researcher probed further for the respondents to indicate what more they thought the university and staff at the resource centre could do to support them better, two students expressed their view this way:

*We need an equipped ICT laboratory with a specialist instructor to help us learn and stop using the braille. I think if the university employs more staff, the workload on the staff will reduce so that they can provide note-*

*taking support and orientation and mobility skills training for the blind and some of us. Two permanent resource persons are not enough for over 60 students with visual impairment (Verbatim expression by a student in Group 4).*

*I think the resource centre should collaborate with the examination officers of the various departments and academic board to separate our papers for us. At times we feel too much overwhelmed if we write two three-hour papers continuously (Verbatim expression by a student in Group 3).*

Another student had this to say:

*I want the university to recruit more staff and purchase more equipment like embossers, Perkins brailers, magnifiers, computers, recorders and new technological devices for the blind. If there are more embossers, I know the resource persons will emboss all academic documents for us (Verbatim expression by a student in Group 1).*

One student noted that:

*We need a well-furnished ICT laboratory with screen readers and speech synthesizers on all the computers so that we can learn to use the computer very well and study with it. We can search for academic information from the internet if we have an ICT laboratory because most of us don't have personal computers (Verbatim expression by a student in Group 2).*

Another student added:

*My major concern is for the university to provide a well-equipped ICT laboratory so that we can all learn how to use the computer well. This will actually make our demand for obsolete assistive devices like Perkins brailers and magnifiers a thing of the past (Verbatim expression by a student in Group 5).*

It is evident from the analysis that the level of support that the respondents received from the resource centre was fairly good. It would be seen that they received support they requested in good time with an uncompromised quality, even though there were isolated cases where some works had some minor errors. It is also clear that the respondents needed services in ICT instruction, note-taking and orientation and mobility training which they seldom received due to the limited number of qualified staff.

#### **4.1.4 Research Question 4: How do students with visual impairments access university library facilities at UEW?**

To answer this research question, the interview data collected were used. The themes were revealed when students with visual impairments were asked to describe how they access library facilities of the university were on access to library buildings and furniture and access to information.

##### Access to library building and furniture

Ensuring access to information is a critical requirement in the education of students with visual impairments, since majority are unable to read information in print format. The respondents expressed common views on how difficult it was for them to access the university libraries' building and furniture. They registered their dissatisfaction regarding the libraries' environment. Two students remarked this way:

*Where the library is located is not favourable to persons with disabilities especially those of us with visual impairment. The one at the faculty block is located at the topmost flour which is the fourth floor which makes it*

*very difficult to access because the elevator is always not functioning* (Verbatim expression by a student in Group 4).

*I have once been to the Osagyefo Library at the South Campus but even the road to the library is not accessible for students with visual impairment. There are some stairs and gutters with some parts covered but others not. If you are not careful you can slip and fall into the gutter. Also, the seats are closely packed such that it requires the eye for you to maneuver your way through and sit to read* (Verbatim expression by a student in Group 1).

Another student expressed his view this way:

*I was told the library at the Social Science faculty block is at the top floor so it is not easily accessible to us. We have not been oriented on the use of the library and where it is* (Verbatim expression by a student in Group 3).

Another student added that,

*The library is located at the pinnacle of the faculty block, you will get tired when you want to visit there. The location is not favorable at all; it is inaccessible* (Verbatim expression by a student in Group 2).

It is apparent from the analysis of the comments of the respondents that, their experiences in accessing the physical infrastructure and furniture of the university libraries was negative. It seemed clear from the analysis that the respondents were not comfortable with issues regarding their safety in moving around the university libraries' environments. Students were concerned about the location of one of the libraries at the topmost floor of the building.

Access to information

In relation to access to information from the university libraries, the focus group interaction with the respondents revealed that, the respondents faced challenges in accessing information from the university libraries. A student remarked that:

*I was at the library last semester with a friend to search for information for an assignment but I couldn't find any accessible material to make use of. There were not brailled books, talking books, bold print books or screen readers on the computers available. Since then I have not been there again (Verbatim expression by a student in Group 4)*

Another student had this to say:

*There are no materials in the libraries meant for students with visual impairment. No books in braille, audio or others. I have been to the library before and they don't have any books like that not even one (Verbatim expression by a student in Group 3)*

One student expressed that:

*I did not like the experience I had when I was at the library for the first time so I have not been going there. In simple terms, there are no accessible books or equipment (Verbatim expression by a student in Group 2).*

Two students added that:

*When you enter the library, there are no accessible learning materials or equipment to help us read what is in the library. There are some devices which can scan and read print like the Eye-Pal Solo. They can purchase some and put at the libraries so that we can also read something in the library (Verbatim expression by a student in Group 1)*

*There are no learning materials accessible to the visually impaired in the university libraries so I don't visit there* (Verbatim expression by a student in Group 5).

It could be observed from the comments of the students on the university's libraries that, there were no provisions made for students with visual impairments. It is obvious that the negative experiences the respondents went through at the university libraries deterred them from going there to search for information. It can be deduced from the expressions of the respondents that the university's libraries did not have assistive devices that could aid them access the materials in the library. The respondents further indicated that they lacked information regarding the university's e-resources and how to access them. Two students stated that:

*I am hearing about the university's online resources for the first time. I don't know anything about that and we have not been trained to access information from that source* (Verbatim expression by a student in Group 1).

*The university librarians do not orient us on how to access any of the university's e-resources. They only take us through general orientation with the sighted on the use of the library but do not do any special orientation for students with visual impairment on how to access the university libraries' facilities. Some of us don't even know about any e-resources. Maybe the university is not ready to let us know about that* (Verbatim expression by a student in Group 2).

Another student noted that:

*We have not been trained on library issues. We don't know anything about library issues. We have not been trained to search for information from*

*the e-resources of the university* (Verbatim expression by a student in Group 3)

One student added that:

*We are not aware of the availability of e-resources of the university not to talk of being trained to access it* (Verbatim expression by a student in Group 4)

Commenting on the availability of trained library staff to support them in search for information, one student declared that;

*One of my friend who is low vision and can read print with a magnifier even went there to search for a book and one of the librarians told him to go to the computer and type the title of the book and search for it. My friend told him that he is a visually impaired student and so cannot do that all alone. The librarian told him to go and get a friend to come to do that work for him. When he came and told me that, I decided not to ever think of going there because if a low vision person could not get the little support he needs then what will happen to me who is totally blind* (Verbatim expression by a student in Group 5).

It seems clear that the respondents lacked knowledge about the university libraries' e-resources and how to access them. The analysis of the comments seemed to indicate that lack of training or special orientation of students with visual impairment on the availability and access to the libraries' e-resources inhibited their access to e-resources in the university. It is also clear that students with visual impairment did not benefit from special support by library staff in accessing the university libraries' facilities.

## 4.2 Discussion of Findings

The discussion highlighted the major findings of the research and inferences made from them in view of findings from related previous studies. The discussion was guided by the research questions that were raised to guide the study.

Regarding research question 1 that focused on finding the pattern of social interactions that exists between students with visual impairments and their sighted peers, the results revealed that majority of the students had many friends from different departments and faculties in the university with at least one sighted student being an intimate friend. The analysis revealed that the students' intimate friends also supported them and shared information and other resources with them. It is clear from the comments of the students that the pattern of friendship with their sighted colleagues is positive.

The findings on the friendship pattern of the participants support studies by Awini (2015) and Matheson, Olsen and Weisner (2007) who reported that majority of students with disabilities did have friends who were not disabled and the sighted peers of the students with visual impairments interacted with them and were not treated harshly by the sighted. However, these findings were inconsistent with the findings of Frostad and Pijl, (2007), Pijl, Frostad and Flem (2008) and Koster, Pijl, Nakken, and Houten (2010) who found that students with disabilities had fewer friends without disabilities and were less accepted in the mainstreamed schools. Rockson (2014) also found in her study that, students with visual impairments lacked support and friendship from their sighted peers. Rockson's study further showed that students with visual impairments interacted and related more with their fellow peers with visual impairments than with their sighted



peers. Thus, the findings of Rockson (2014) do not manifest in the current study, not even from a minority of the students view point.

The findings indicated that generally students with visual impairments in the university were involved in cooperative and/or group interactions. Although one of the students expressed the unwillingness of sighted students to involve them in cooperative activities, majority indicated that the sighted students were prepared to engage them in cooperative interactions. Some students revealed that some sighted students tried very much to ensure their participation in group tasks which promote their academic performance. The findings revealed that the students believed the sighted were prepared to involve them in cooperative activities because of what their sighted colleagues benefited from them; however, the students stated their desire to always be at group meetings because of what they also gained from it. This is what could be termed as 'mutual cooperative benefit'. Findings are consistent with the findings of Pijl and Scheepstra (1996) who reported that students with visual impairments attending mainstreamed schools were least likely to be involved in small group work in and outside of the classroom.

On the issue of involvement in extra-curricular activities, the students revealed that they were not sufficiently involved in sports and hall week celebration activities in the university. The students are of the view that sighted students do not know much about their abilities and how to choose activities or adapt equipment to promote their participation in extra-curricular activities. Participants revealed that sports equipment was not adapted to promote their participation in intramural sports. Even though one of the students indicated that few of them were given the opportunity to participate in some

events in the inter university games occasionally, they believe that the equipment were not suitably adapted to promote their competitiveness and participation in other sporting activities. The students felt they were left out of many events which they could participate in. Analysing the comments, it was clear that the sighted students lacked knowledge about the capabilities of students with visual impairments which largely resulted in their exclusion from some extra-curricular activities. On the contrary, the students expressed satisfaction with their involvement in religious activities such as church services. They indicated their recognition by the sighted peers in religious activities to the extent that they are given the opportunity to participate in various activities of the religious groups and in some cases serve as leaders of the group.

The findings support that of Schedlin, Lieberman, Houston- Wilson, and Cruz, (2012) and Shevlin, Kenny and McNeela, (2002) who reported that students with disabilities were left to watch physical education rather than participate and were not permitted to go on school trips. Shevlin et al. (2002) further noted that participants felt excluded and even more aware of their differences when they were not permitted to participate in such extra-curricular activities. Schedlin, et al., (2012) found that modifications to instruction, the environment and equipment were not made to allow participants to successfully participate in physical activities. Results of the study by Schedlin, et al. further revealed that both participants in the study participated in physical activities at a lower rate than their sighted peers. Contrary to the findings of the above studies, a student with low vision and the principal participant in a single-case study conducted in Canada was found to be engaged in a variety of sporting activities both at school and in the community (George & Duquette, 2006). It is evident from the

discussions that, there existed some levels of social interaction with the sighted in the university but not at a satisfactory level as indicated by the participants.

The results of the study were supported by Tinto's (1975) model of students' retention or departure. Tinto indicated that social interaction is dependent on the student's ability to become involved in the university community as well as connect to the peer and engage in the social life of the institution. This implies that when students with visual impairments are exposed to challenges in their participation, they are likely to depart from the activities of the university or even quit. Tinto postulated that whereas academic interaction is a requirement for students' retention, social integration is not. However, both academic and social interactions have potential influences on student involvement and retention in a university.

As regards research question 2 that focused on finding out the nature of academic interactions that exist between students with visual impairments and their lecturers at UEW, it was evident from the analysis that the nature of academic interactions between the students and their lecturers was unsatisfactory. It was also evident that most instructors did not consider the condition of students with visual impairments in the teaching and learning process. The students indicated that they did not receive any form of modification in the course of receiving information in class apart from occasional spellings of words or terminologies. It could be noted from the comments of the students that majority of the lecturers did not understand the implications of visual impairment in the teaching and learning process. This, the students believed did not influence the lecturers to ensure that they provide accessible learning materials to them. These findings supported that of Mushome and Monobe (2013) who found out in their study

that even though their university in South Africa has been registering students who are visually impaired each year, faculty members were not trained to handle these students in the lecture hall to enhance their academic and social performance. Similarly, Utschig et al. (2011) revealed in their study that faculty members were unwilling to explore innovative or technological accommodations beyond simplistic ones because of the work or time involved in implementing them. Again, teachers were found to use more generic teaching practices with limited or no adaptations tailored to the needs of students with special needs (Kuyini & Desai, 2008).

The students' insightful description of how they were involved in the teaching and learning process revealed that majority of lecturers made conscious efforts at ensuring that they participated in class activities. The students were pleased with the recognition given to them by the instructors in class and appreciated the efforts lecturers made to ensure their participation in class activities. It was evident from the analysis that students valued the efforts of lecturers in ensuring that they had groups and participated in the oral presentations of the group works. In the view of the students, the lecturers gave them a fair opportunity to respond to questions and contribute to class discussions. It was clear from the analysis that the lecturers employed group discussions, group and individual assignments and projects to promote learning in the students. The feeling of being involved in the teaching and learning process enhance the attendance of the students to class or lectures. These findings confirm that of Ahmed (2013) who reported that the overall teaching style of the instructors at the university was more learner-centred than teacher-centred teaching style. Teachers who believed in the learner-centred instruction approach rely on small group work, projects, and discussions to engage students and

encourage active participation in class (Garrett, 2008) as appear to be the case in the current study.

Analysis of respondents' comments revealed that they were partly pleased with their experiences regarding assessment of learning. It could be noted from the analysis that the students were fairly satisfied with the nature of assessment items and opportunity for alternative medium of assessment. They indicated that question items presented to them during quizzes and examinations were devoid of mathematical concepts, diagrams and tables which require vision to answer. The students noted that they were given extra time to complete examination and lecturers sometimes gave them the opportunity for alternative medium of assessment. It could be deduced from the comments of the students that different methods such as individual assignments, group works, quizzes and end of semester examinations were employed in their assessment. These findings were consistent with that of Waterfield et al. (2006) who found that using alternative methods of assessment benefit both students including students without disabilities. Notwithstanding these fairly positive experiences, the students revealed that they sometimes went through frustrating times when writing examinations. The students reported delays in receiving quiz and examination questions from the lecturers and examinations officers respectively. The students noted that, some delays in receiving examination questions cause anxiety and tension in them when writing examinations. The students indicated that occasionally they were not given enough time to complete their quizzes and examinations. Findings of this study were supported by Madriaga, et al. (2010) who found out that, disabled students had greater difficulties than non-disabled students with the amount of time required to complete coursework. From the forgoing

discussions, it could be observed that the students had concerns with issues regarding their interaction with lecturers especially relating to assessment and modifications lecturers made in the teaching and learning process.

Concerning research question 3 that was to explore the level of support students with visual impairments receive from the resource centre for students with special needs at UEW, the analysis of the comments from the students revealed that, staff at the resource centre provided variety of academic support including, scanning of print documents and books to be used on students' personal computers that had screen readers, embossment of learning materials, creation of audio versions of learning materials and teaching them how to use some assistive devices. The analysis indicated that the supports provided were tailored towards the needs of individual students. The major supports that appeared in the comments of all the focus groups were the transcription of brailled scripts and provision of soft copies of learning materials for the students. In expressing their views, the students noted that the supports they receive from the resource centre were not only related to academics but included supports that were related to their welfare and safety in the university. The analysis revealed that staff at the resource centre arranged for accommodation for the students and assisted them in completing forms relating to bursary and scholarships.

Further analysis of the data revealed the theme, effectiveness of support received. It was evident that the students received supports they requested in good time with an uncompromised quality even though there were isolated cases where some works had some minor errors. A study by Dutta, Schiro-Geist and Crandall (2003) confirmed the findings of the current study indicating that, participants in their study reported high

levels of satisfaction with the supports they received from the disability support service. On the contrary, Sharpe, Johnson, Izzo and Murray (2005) reported participants' low level of satisfaction with supports received from the disability support units.

From the analysis of the comments, the students revealed that they do not receive support in ICT instruction, note-taking and orientation and mobility training due to limited number of qualified staff at the resource centre. It was revealed that the students wanted the management of the university to recruit more staff, provide an equipped ICT laboratory with a specialist instructor and purchase more supportive equipment and devices such as embossers, Perkins brailers, magnifiers, computers, recorders and new technological devices for the blind in view of the inadequacy of these equipment. Supporting these findings, Teye (2014), identified students with disabilities difficulty with access to computers and the inadequacy of computer training as barriers to computer use among the participants. Teye recommended that management of UEW consider recruiting qualified and competent ICT personnel to assist the students with disabilities in using the computer and take charge of the technology-related needs of students with disabilities.

With regard to research question 4 that focused on finding out how students with visual impairments access the university libraries facilities at UEW, it was evident that students were not pleased with experiences relating to access to the physical infrastructure and furniture of the university libraries. The students expressed views on how difficult it is for them to access the university libraries' building and furniture. Concerns with the location and the safety of the outside and inside environment of the university's libraries were apparent from the analysis of the comment of the students. The

students registered their dissatisfaction with the locations and the environment of the libraries building. The students indicated that one of the libraries is located at the topmost floor of the building while some of the gutters around the building of main library were not covered which compromises their safety in movement to the library. These findings corroborate that of Ekwelem (2013) who revealed in his study regarding accessibility to the library building and furniture that, there was lack of facilities such as adjustable table and keyboard tray, ramps, lift with disabled friendly features and automatic-opening doors for students with disabilities. This made the respondents perceive among others that libraries were established to serve only non-disabled users and that there is inadequate knowledge of the needs of those who do not or cannot use the libraries.

Disputing the findings of the current study is that of Samson (2011) who found that the needs of students with disabilities were being met as students were able to physically access library facilities with little or no difficulties. Samson revealed in the study that all libraries had either been retrofitted to accommodate students with disabilities and new structures were being constructed according to universal design standards. In the effort of the libraries to meet the physical accessibility needs of students with disabilities, Samson found that the libraries had multiple entryways with ramps, elevators, adjustable computer tables, universal adjustable keyboards, accessible study desks, stand-up study or computer tables, adjustable seating and aisles for easy movement. She also noted that 87.5 percent of the libraries collaborated with the Disability Services in providing assistive technology to promote access.

Findings from the analysis of data revealed that, provisions were not made by the university libraries management to make the library materials accessible to the students.



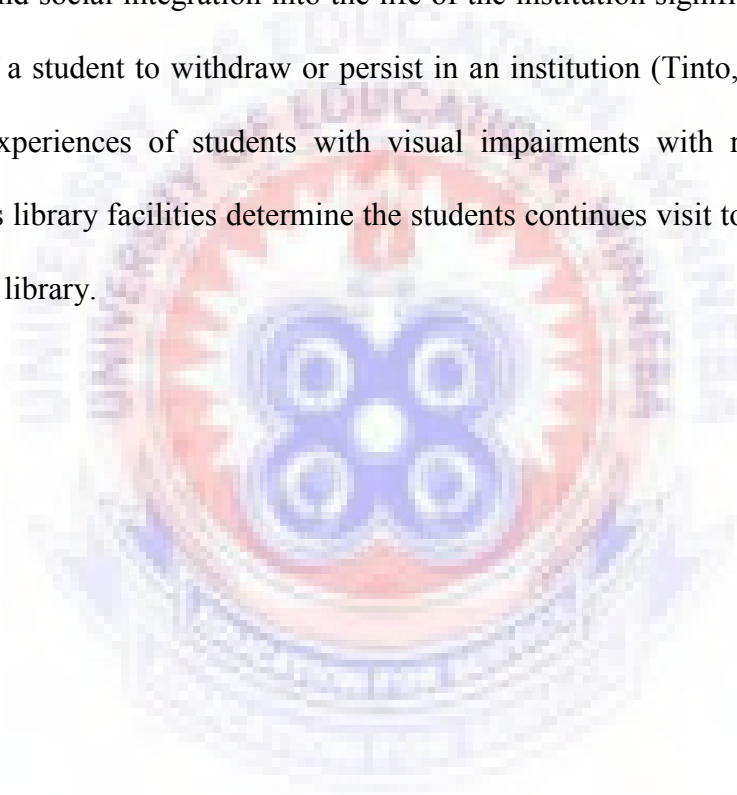
It could be noted from the analysis of the expressions of the students that management of the university libraries neither provided library materials in accessible formats such as braille and bold print nor any technological device that would aid the students to access the materials in the university libraries. Various studies have reported similar findings indicating that students with visual impairments in the most university libraries do not have books in braille or large print format making them to depend on human readers for information) (Majinge & Stilwell, 2013; Ndumbaro, 2009; Tungaraza, 2010).

Further analysis of participants' comments revealed lack of students' knowledge of the university libraries e-resources and how to access them. The students indicated that they only went through general orientation with their sighted colleagues on the use of the libraries but were not given special orientation and training as students with visual impairments to enable them access both print and e-resources of the libraries. The students expressed their concern with the lack of trained specialist staff at the libraries to support them in search of information.

Consistent with these findings is the results of a study by Dadzie (2007) which revealed that information skills training which included training on the available electronic resources in the library and how to effectively search the databases were not offered to undergraduate students at the University of Ghana. In alignment with the findings of the current study, Sunrich and Green (2006) found that out of the 6 institutions profiled, it was revealed that only one library provided 7 assistive technologies while the other institutions provide a maximum of two (Kurzweil 1000 and JAWS) out of the fifteen assistive technologies listed. These authors also found that students were not trained to use the available assistive technology and staff were also not

trained to support students with visual impairments to use the assistive technology mainly due to budgetary constraints.

It was obvious from the comments of the students that these negative experiences they went through at the university libraries deterred them from going there in search for information. These revelations were consistent with “Tinto’s model of student’s departure or retention”, where Tinto specifically indicated that the quality or degree of academic and social integration into the life of the institution significantly influences the decision of a student to withdraw or persist in an institution (Tinto, 1982). This implies that, the experiences of students with visual impairments with regards to access to university’s library facilities determine the students continues visit to or withdrawal from visiting the library.



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the summary, conclusions and recommendations made on the findings from the study which explored the experiences of students with visual impairments at UEW. Four research questions were formulated from the objectives to guide the study. Focus group interviews were conducted on 30 students with visual impairments. Data from the interviews were analyzed using themes that emerged from the responses of participants.

#### 5.1 Summary of Findings

In terms of the pattern of social interaction with the sighted peers, students' responses revealed three themes: pattern of friendship, cooperative interaction pattern and participation in extra-curricular activities. Results of the study revealed that the students were accepted and supported by their sighted peers in the university which created friendship among them, yet the students had fewer intimate friends due to lack of trust in their sighted colleagues. The findings also revealed that non-disabled students involved the students in group works. The sighted were prepared to involve them in group works largely because of what they benefited from students with visual impairments. It should however be noted that, some of the students stated that the sighted were not prepared in some cases to involve them in group activities. Further analysis of the data revealed that the students were not involved in extra-curricular activities in the university. Although the students were satisfied with their involvement in religious activities, they were

excluded from participating in sporting and hall week celebration activities because the non-disabled students probably lacked knowledge of their capabilities.

In expressing their views on how lecturers interact with them in the lecture hall, the students expressed their dissatisfaction with the modifications lecturers made to accommodate them. Responses revealed students' belief that most lecturers do not have knowledge on how to modify instruction in teaching students with visual impairments. Findings of the study revealed that lecturers did not provide learning materials in accessible formats for the students. On the contrary, the students appreciated the recognition given to them by the lecturers in class and valued the efforts made by some lecturers to ensure their participation in the teaching and learning process. Findings of the study relating to assessment of students revealed that the students were fairly satisfied with the nature of assessment items and opportunity for alternative medium of assessment although there were reports of occasional frustrating experiences with assessment.

Results of the study further revealed that depending on the needs of the student, students received supports including transcription of brailled scripts, provision of soft copies of learning materials for the students, embossment of learning materials and creation of audio versions of learning materials. In addition, it was also revealed that, teaching them how to use some assistive devices and arrangement of hostel accommodation were also provided as support for the students. The respondents revealed that they were satisfied with the effectiveness of the support they received from the resource centre but indicated that there is room for improvement with regards to the support provided to them. Findings of the study revealed that students did not receive support in the areas of ICT instruction, note-taking and orientation and mobility training.

The students indicated their need for more assistive devices and equipment such as magnifiers, computers, recorders and embossers.

The students' views on access to the university libraries' facilities revealed that the location and furniture of the libraries were inaccessible. It was further revealed from the data that library materials were not provided in accessible formats to promote accessibility of information for students with visual impairments. The students stressed the unavailability of technological devices that could facilitate their access to the materials in the libraries. Additionally, findings of the study indicated that the students lacked knowledge of the libraries' e-resources and they were not trained to access the e-resources neither did they have specialist library staff that could support them in accessing the libraries facilities.

## **5.2 Conclusion**

The study concluded that although students with visual impairments in the university have appreciable number of sighted friends, the sighted students' lack of knowledge of the capabilities of the students with visual impairments hampered their involvement in social activities. Again, it was established that lecturers made valuable efforts at involving the students in lecture hall interactions. The recognition of students with visual impairments was felt in the nature of assessment items presented and alternative medium of assessment by lecturers. However, it was gathered from the study that lecturers need exposure to occasional special training on how to modify instruction to meet the needs of students with visual impairments in class.

Additionally, it was recognised that the students with visual impairments required support in ICT instruction, note-taking and orientation and mobility training to enhance their social and academic performance. The students were fairly satisfied with the effectiveness of supports they received from the Resource Centre for Students with Special Needs. It also realised that the libraries' locations and materials were inaccessible to the students. The participants felt their needs were not considered in the procurement of library materials. It was established that the students lacked knowledge of the university libraries' e-resources. From the findings of the study it can be concluded that the experiences of students with visual impairments in the university is somewhat positive.

### **5.3 Recommendations**

Based on the findings, the researcher recommended that:

- ❖ Lecturers should create lecture hall environment that encourages frequent peer interaction and also ensure that groups formed for assignments have at least one student with visually impairment who will periodically be selected to lead presentation of the group work.
- ❖ The university authorities should ensure that special sporting equipment are purchased to promote participation of students with visual impairments in intramural and extramural activities.
- ❖ The Department of Special Education should periodically sensitize lecturers in the university on how to modify instruction to embrace students with disabilities especially students with visual impairments in lecture hall interaction.

- ❖ The Human Resource department of the university should recruit more staff to support student with visual impairments in the university.
- ❖ Management of the university libraries should purchase technological devices that will produce learning materials in accessible format for students with visual impairments and should also organise periodic training for them on how to retrieve available e-resources to their academic benefit.

#### **5.4 Suggestions for Further Research**

In relation to the study, the researcher suggested the following areas for further research:

- ❖ Need for further research to investigate the academic experiences of students with visual impairments in tertiary institutions in Ghana as well as its impact on their performance.
- ❖ Need for a study that compares the experiences of students with low vision and those with total blindness in Ghanaian universities.

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**APPENDIX A**

**DEPARTMENT OF SPECIAL EDUCATION**

**UNIVERSITY OF EDUCATION, WINNEBA (UEW)  
OFFICE OF THE HEAD OF DEPARTMENT**

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Our Ref:

November 22, 2016

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Dear Sir/Madam,

**LETTER OF INTRODUCTION**

I write to introduce to you, Nana Opoku Acheampong an M.Phil student of Department of Special Education of the University of Education, Winneba, with registration number 8150150005.

He is currently working on his thesis on the topic "*Experiences of Students with Visual Impairments at the University of Education, Winneba, Ghana*".

I should be grateful if you could give him with the needed assistance to enable him to collect data from you school. This forms part of the requirements to complete the programme.

Counting on your cooperation.

Thank you.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Yaw Nyadu Offei'.

YAW NYADU OFFEI (PHD)  
AG. HEAD OF DEPARTMENT



## APPENDIX B

### INTERVIEW GUIDE FOR STUDENTS WITH VISUAL IMPAIRMENTS

#### Patterns of Social Interaction with Sighted Peers.

1. Describe the pattern of social interaction between you and your sighted peers in the university?

#### Prompts:

- a. How easy or difficult is it for you to make friends with the sighted?  
How would you describe your relationship with the sighted?
- b. What about your involvement in cooperative activities/group work?
- c. How about your participation in extra-curricular activities such as sports and games on campus?

#### Nature of Academic Interactions with Lecturers

2. What is the nature of academic interactions with lecturers? Describe it.

#### Prompts:

- a. What would you say about how lecturers teach you?  
How about adaptations and modifications lectures make for you during teaching.  
Do lecturers provide reading materials in accessible formats?
- b. How will you describe the way you are involved in the teaching and learning process?
- c. What can you say about your experiences in terms of assessment?  
Do the assessment items have signs, tables and diagrams?

Do you receive extra time to complete your quizzes and exams?

Do you get the opportunity to be assessed through different means such as presentations, group work and individual assignments?

### **Level of Support Students Receive from the Resource Centre for Students with Special Needs**

3. How do you benefit from the services from the resource centre.

#### **Prompts:**

a. What type of support do you receive from the centre?

Do you receive support regarding note-taking, ICT training and orientation and mobility training?

b. How effective are the support provided to you?

What can you say about the quality and timeliness of support?

c. What more do you think can be done to support you?

d. What do you think should be done differently and how?

### **How Students with Visual Impairments Access University Library Facilities**

4. How will you describe your experiences in accessing library facilities?

#### **Prompts:**

a. How accessible is the library building and general layout?

b. Are the library resources such as computers and books accessible to you? If yes how?

c. Are there special trained staffs to support you in search of information?

d. Have you been trained to use the library's online resources?