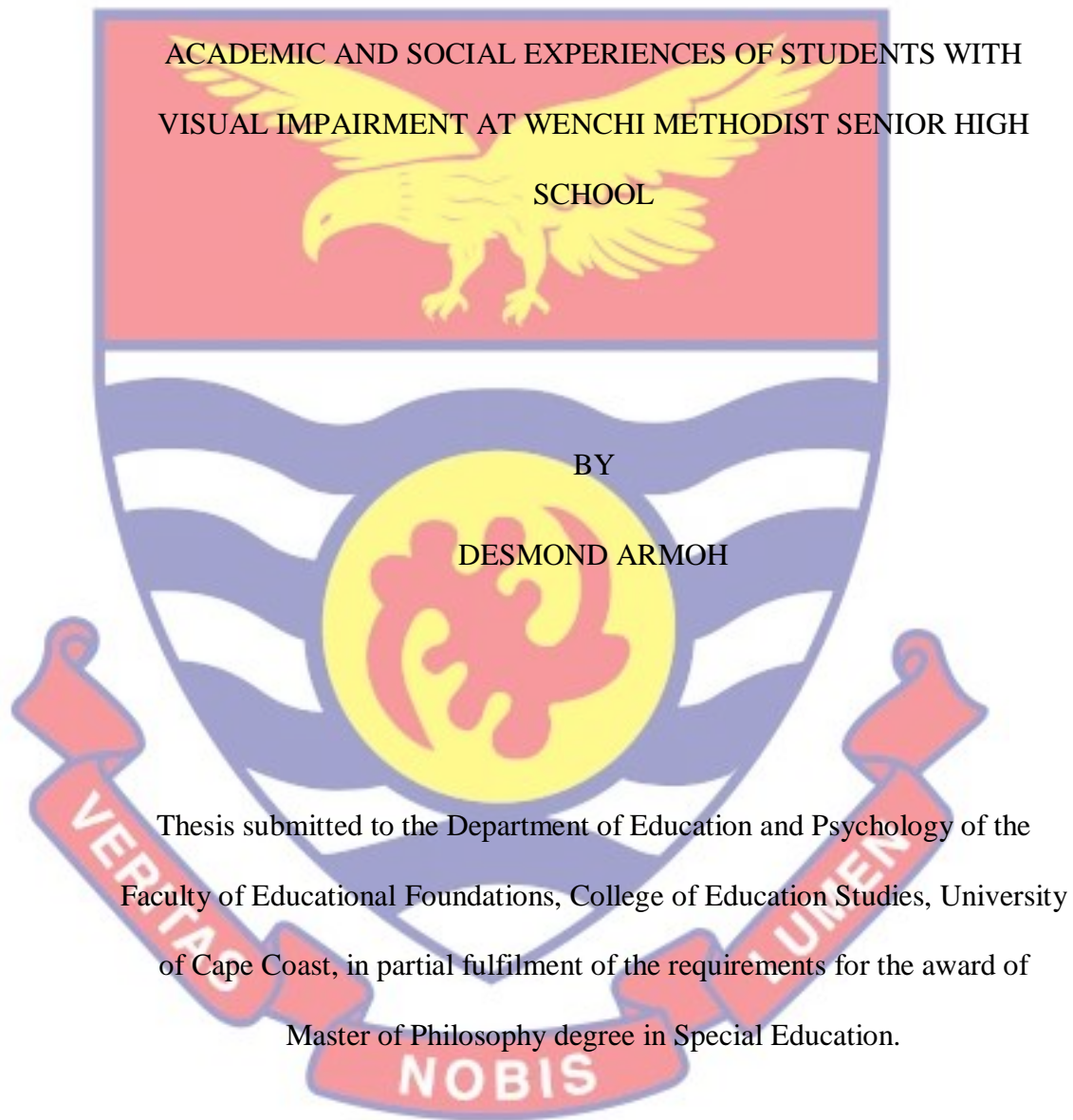


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JULY 2021

DECLARATION

Candidate's Declaration

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

Candidate's Signature Date.....

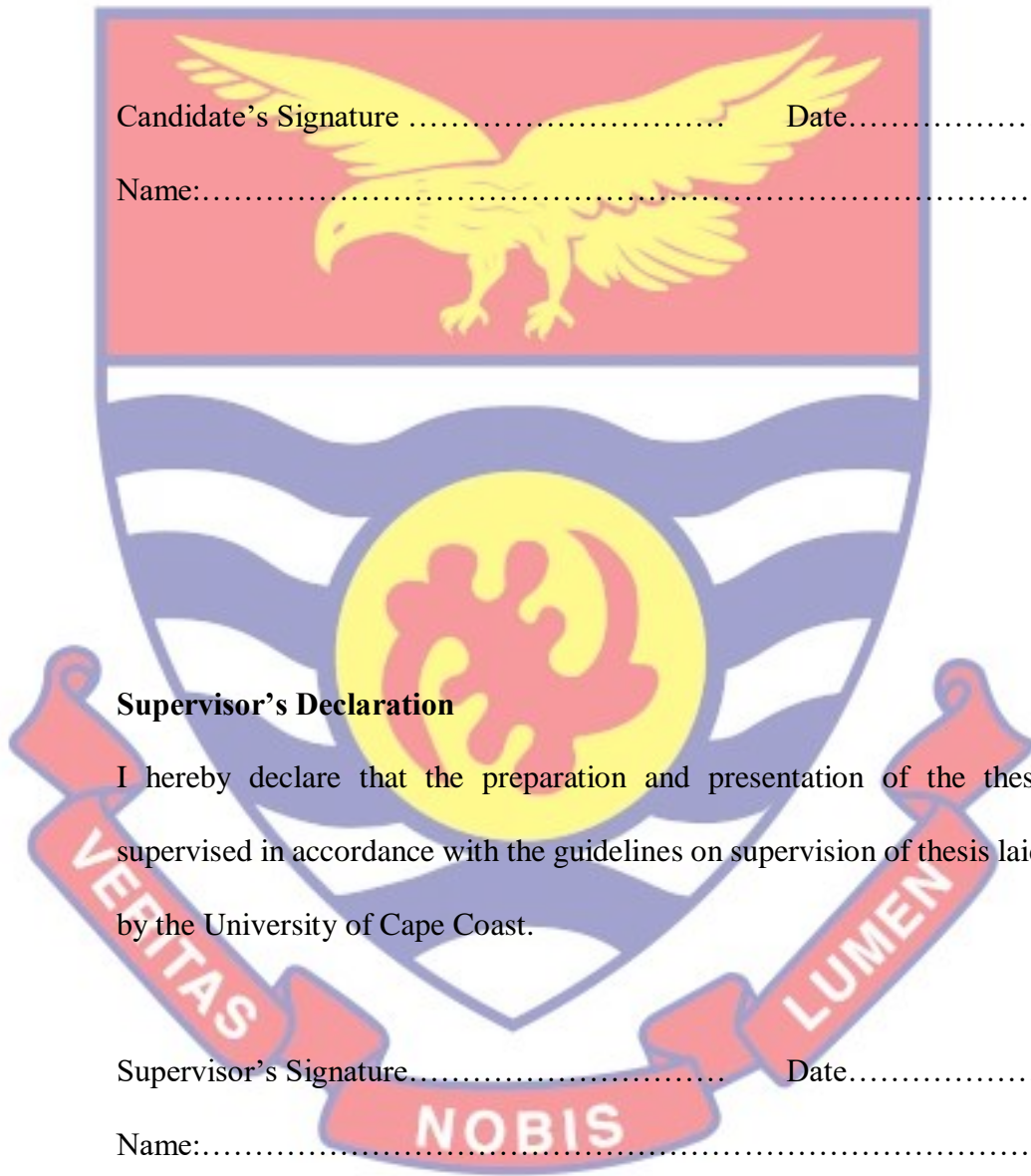
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Supervisor's Declaration

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

Supervisor's Signature..... Date.....

Name:.....



ABSTRACT

The purpose of the study was to examine academic and social experiences of students with visual impairments at Wenchi Methodist Senior High Schools. Four research questions guided the study. The study adopted a qualitative approach specifically, a phenomenological research design. Participants for the study were purposively selected. The sample size for the study was 20 participants which were made up of 11 students with blindness and nine students with low vision. Focus group interview was used to collect data for the study. The data obtained were analysed using thematic analysis. It was discovered in the study that students with visual impairment were assessed academically through tactile modelling, verbalisation, and differentiation. It was further revealed in the study that sighted students were the only medium students with visual impairment access information due to inadequate assistive technologies. Also, it was found in the study that the social relationship that exist between students with visual impairment and sighted students was poor. Based on the findings, it is recommended that the Special Education Division through the Ministry of Education should sensitise sighted students to accept and appreciate individual differences. Students with visual impairment at Wenchi Methodist Senior High should be provided with Closed Circuit Television, magnifiers, Job With Access Speech to enable them access information without solely depending on their sighted peers.

KEYWORDS

Visual Impairment

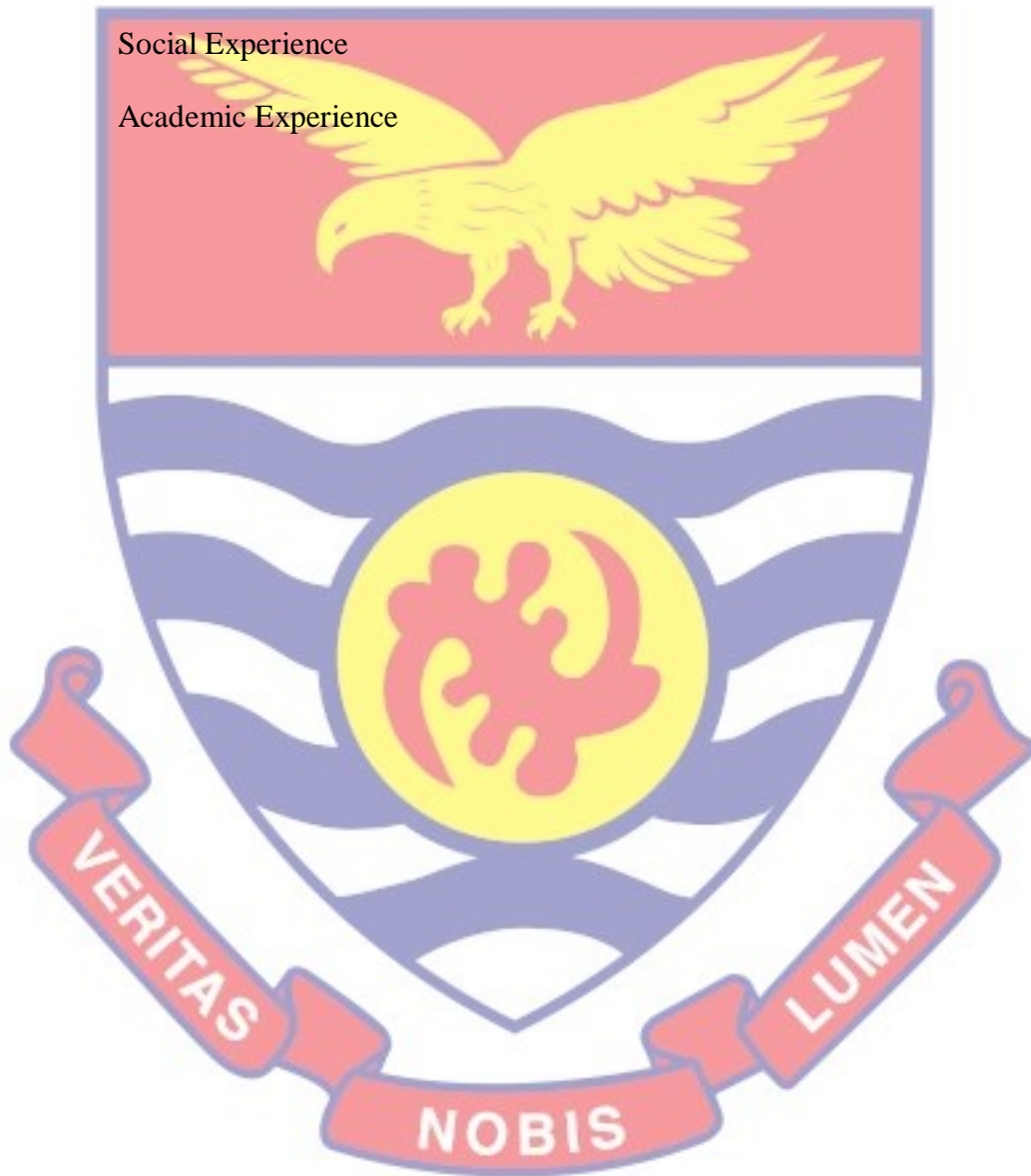
Low Vision

Blindness

Sighted Peers

Social Experience

Academic Experience

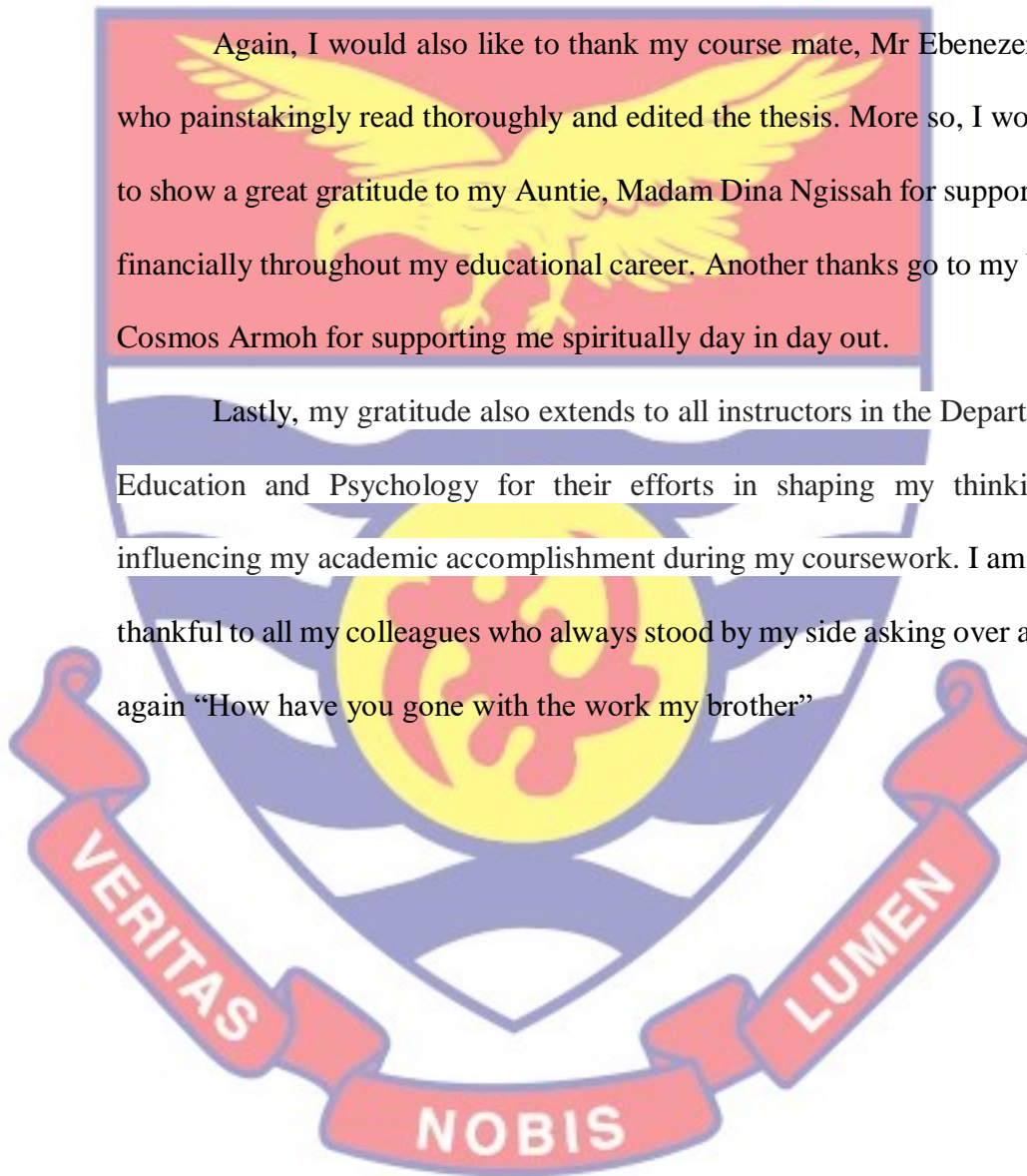


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DEDICATION

To my parents, Mr Francis Armoh Kwesi and Mrs Elizabeth Quarm.



TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF ACRONYMS	xii
CHAPTER ONE: INTRODUCTION	
Introduction	1
Background to the Study	1
Statement of the Problem	7
Purpose of the Study	9
Research Questions	9
Significance of the Study	10
Delimitations	11
Limitations	11
Operational Definition of Terms	12
Organisation of the Study	12
CHAPTER TWO: LITERATURE REVIEW	
Introduction	14
Theoretical Framework	14
Conceptual Review	16

Regular Teachers' Instructional Strategies for Students with VI	16
Regular Teachers' Assessment Practices for Students with VI	32
Empirical Review	44
Summary of Literature Review	47

CHAPTER THREE: RESEARCH METHODS

Introduction	49
Research Design	49
Study Area	50
Sample and Sampling Procedure	51
Data Collection Instrument	53
Measures to Ensure Trustworthiness	53
Pilot-Testing	56
Data Collection Procedures	56
Data Processing and Analysis	57
Ethical Considerations	60

CHAPTER FOUR: RESULTS AND DISCUSSION

Introduction	62
Participants' Demographic Information	62
Results of the Study	63
Research Question One	63
Tactile Modelling	63
Verbalisation	64
Differentiated Instruction	66
Co-Teaching	69
Research Question Two	71

Sighted Friends	71
Assistive Technology	72
Research Question Three	79
Oral Reading	79
Extra Time Allowance	81
Modification	82
Adapted Format	82
Research Question Four	85
Friendship Form	85
Cooperative Learning	87
Co-curriculum Involvement	87
Discussion	88
Research Question One	88
Research Question Two	91
Research Question Three	93
Research Question Four	95
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Introduction	98
Summary	98
Key Findings	98
Conclusions	99
Recommendations	99
Suggestion for Further Research	100
REFERENCES	101

APPENDICES	128
APPENDIX A: ETHICAL CLEARANCE LETTER	128
APPENDIX B: INTRODUCTORY LETTER	129
APPENDIX C: INFORMED CONSENT FORM	130
APPENDIX D: FOCUS GROUP INTERVIEW	131



LIST OF TABLES

Table		Page
1	Population Distribution of Participants	51
2	Distribution of Sample Size of the Participants	52
3	Phases of Thematic Analysis	57



LIST OF ACRONYMS

AFB American Foundation for the Blind

IE Inclusive Education

IEP Individualised Educational Plan

VI Visual impairments

UNESCO United Nations Educational, Scientific and Cultural
Organisation

WHO World Health Organisation



CHAPTER ONE

INTRODUCTION

Introduction

Universally, the concept and philosophy of inclusive education (IE) got international prominence when the United Nations endorsed the principle of Education for All at the World Conference on Education for All in Thailand in 1990 (Lamichhane, 2017). In Ghana, many educational policies aiming at enacting the community-based rehabilitation program, which launched IE in ten districts in 1992, have been approved. For example, the 1992 Constitution promises Free Mandatory Universal Basic Education, as well as the National Disability Policy of 2000, the National Disability Act of 2006, and the Ministry of Education Strategic Plan (2010-2020) (Nketsia & Saloviita, 2013). Thus, all these policies were intended to correct inequality in the educational segment and to offer students with exceptional needs the same opportunity to education in order to make them useful and productive human beings in the society.

Background to the Study

Cilesiz (2011), defined experience as the full involvement in actions or behaviours, primary to the build-up of knowledge or skills. In the context of this study, academic and social experiences are the activities students with Visual Impairment (VI) engaged themselves with either academically or social interaction in the school. Students with unique educational needs have valuable experiences that can help them achieve their educational goals. What students are uncovered to in the educational setting can influence the kind of skills and knowledge they will

acquire (Bhan, 2012). This means that positive life experiences of students will lead to the production of knowledgeable and skilful individuals for the society (Acheampong, 2017). It could also mean that if appropriate measures are put in place by schools in attempting to educate students with special needs of which students with VI is of no exemption, then their academic and socially accepted activities would be improved. Students with VI are more likely to succeed in school environments that provide adequate training and facilities inside a wide range of program choices, according to researchers (American Foundation for the Blind [AFB], 2011). This suggests that if school environment is conducive and safe that provides an alternative avenue for students with special needs especially students with VI by tailoring instructions to meet their educational needs, then they would achieve their educational goals.

Approximately 1.3 billion people worldwide are believed to have some sort of VI. Thus, 188.5 million people have mild visual impairment, 217 million have moderate to severe VI, and 36 million are blind when it comes to distance vision. In terms of near vision, 826 million people suffer from the condition. (World Health Organisation, [WHO], 2018). Locally, according to statistics, people with VI account for 40.1 percent of Ghana's 737,743 disabled people (Ghana Statistical Service, 2014). In Ghana, it was also shown that almost four out of every ten persons with disabilities are persons with visual impairments in eight of the 16 regions. Only 6.5 percent of Ghana's 288,868 school-aged people with VI have completed secondary school, and 40.1 percent have never completed any formal education (Ghana Statistical Service, 2014). AFB 2012 asserted that students were

at risk of not getting the high-quality services they needed to succeed in special education. This calls for movement in education by international organisations and various countries to allow all persons with exceptionality and special needs to enrol in the same school and learn with the non-disabled persons.

Due to the shift in education, today most students with VI are receiving instruction with their sighted counterpart in the same classroom at the inclusive setting. This movement against exclusion was based on the Salamanca Statement, signed by 92 nations, including Ghana, calls on governments to follow the idea of inclusive education, requiring governments to "enroll all children in regular schools, unless there are compelling reasons to do otherwise" (United Nations Educational, Scientific and Cultural Organisation, [UNESCO], 1994).

Research suggests this move was due to the fact that when all students are educated together, academic and social results for all students improve (Felman, 2000). Students with disabilities who are integrated into general education classrooms have greater opportunities to share their insights with their non-disabled peers, as well as various benefits for all students (AFB, 2012). Wenchi Senior High School was one of Ghana's first senior high schools to implement IE, with the goal of producing better scholars with visual impairments. These individuals now have greater life prospects and have profited greatly from IE in their job search.

Ainscow (2006) stated that successful IE should ensure that educational systems should be restructured and regular schools should react to the varied needs of all learners, with or without disabilities, by accommodating both types of students and rates of learning and ensuring that all children receive a quality

education through appropriate curricula, leadership styles, teaching techniques, resource use, and community corporations. This means, in inclusive environments there should be adapted classroom assessment procedure, flexible curriculum for all learners, conducive environment and socially friendly interacting atmosphere for all students irrespective of the condition. These measures seem to help bridge the gap between students with special need specifically, students with VI and those without disabilities by having access and succeed in their educational career.

Educating students with VI in the inclusive environment has the propensity to unearth their potentials because of the following reasons; studies by Dessemontet et al. (2012), revealed that students with disabilities receiving education in the inclusive classroom made more progress in literacy skills than those in the special schools, inclusive environment serves as a welcoming place for students with or without disabilities to learn how to socialise among themselves (AFB, 2012). Furthermore, it is claimed that educating all children in the same setting, teaches students without disabilities to be tolerant of discrepancies and to admire students with VI (Perles, 2010). Because the general school curriculum is structured, individuals with disabilities who received instruction in an inclusive context have a better chance of finding competitive jobs after graduation than those who left special schools (Katz & Mirenda, 2002).

The experiences of students with VI have been conceptualised and operationalised into four main forms; instructional strategies teachers use to teach, how they access information, the nature of assessment and finally the social relationship between them and sighted peers.

Researchers have found that one of the factors that impacted on a lack of expertise in offering all-encompassing education is the staffing of a sufficient quantity of regular education instructors to teach in secondary schools (Gronlund et al., 2010). Furthermore, some of the general education instructors who are assigned to teach in regular school environment appear to lack sufficient expertise of how to educate in these environments. This, in turn, could have a sway on the education and accomplishment of students with special needs, particularly VI students. Regular education teachers must have appropriate knowledge about inclusion and special needs education in order to deal with the problems of teaching in regular classrooms (Mmbaga, 2002). This means that teachers' teaching practices are critical to the success of IE adoption.

In the area of information access, Bernardi (2012) argued that the inaccessibility of the internet and digital resources has been identified as a hurdle to students with VI accessing information. He added that access to braille materials and technological resources by students with VI helped them to cope academically in school and also make them to be independent learners. This means that for students with VI to be successful in inclusive environment, their means of accessing information should not be overlooked.

With regard to assessment practices, exams require unique considerations for students with VI, including the type of inquiries, the manner in which they respond, and more time. Teachers, on the other hand, believe that adapting exams is tough since it is difficult to ensure that the level questions are the same for all students (Rowlett, 2011). Inability of teachers to adapt questions to suit students

with VI seem to impede their academic performance. Rowlett further asserted that students with VI feel excited in the school when alternative methods of assessment are used by teachers in assessing them academically. For examples; the use of adapted formats in appropriate medium such as braille, large print and extra time allowance.

With social relationship, positive social relationship between peers contribute to their academic attainment. Whitburn (2014) noted that the most effective sort of intervention for augmenting the social status of adolescents with disabilities among their peers without impairments is healthy peer engagement in the classroom and in school-wide activities. Despite this, the majority of students with VI in general education situations are socially isolated (Hatlen, 2004). This has an influence on their self-esteem, which could have major consequences for their educational goals.

Although governments and international organisations are putting enormous efforts to enhance and make education effectively available to persons with disabilities at the general education environments, yet, previous studies conducted on challenges to teaching students with VI in an inclusive situation have been recognised by the school-aged population. (Bardin & Lewis, 2008; Kupar, 2013). Lack of specialist services; books and resources in suitable means to allow equal access to specialised curriculum; stigmatization and rejection by peers were some of the challenges found. These aforesaid barriers seem to limit their academic performance in attempting to achieve their educational goals in life.

Research has also shown that students with VI are often under-identified and under-served in inclusive settings (AFB, 2012). Study conducted by Oppong et al. (2018) on the academic familiarities of deaf students at the University of Education, Winneba, discovered that sign language interpretation help was insufficient. Other studies have found that the assessment practices and teaching strategies used by regular education instructors in inclusive setting are not successfully meeting the academic needs of students with VI (Bayram, 2014; Mwakyeja, 2013). However, it appears that little is known about students with VI access to information and nature of the instruction they receive at Wenchi Methodist Senior High School. This literature gap compelled the researcher to delve into the study in order to fill the gap. It is against this background that the researcher sought to examine the academic and social experiences of students with VI at Wenchi Methodist Senior High Schools.

Statement of the Problem

Students with exceptional educational needs have valuable experiences that can aid them accomplish their educational goals. 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 students will lead to the construction of competent and skilful individuals for the society (Acheampong, 2017).

In an ideal world, IE would include opportunities for students with VI to receive knowledge in a variety of ways (touch, hear, taste, and feel) to reimburse for their vision damage. According to studies, students with VI are more likely to

achieve in school environments that provide adequate teaching and facilities inside a diverse range of program choices (AFB, 2011). Furthermore, curriculum and instructional systems ought to be planned to come across the needs and requirements of students and should be manageable (Mwakyeya, 2013). However, on a visit to Wenchi Methodist Senior High School to find out how students with VI are coping academically and socially with their sighted peers, the researcher observed that students with VI score low in assignments and in examinations. It seems that students with VI are not receiving specialised teaching in the most effective learning mode. It also appears that they do not get adequate access to information. Besides too, it happens that the nature of assessment practices by teachers is inflexible to them. Finally, it was also observed that students with VI were isolated in co-curricular activities. Despite the fact that governments and international organizations are working hard to improve and make education more accessible to people with disabilities in inclusive settings, previous studies on students with VI school-aged populations have found challenges to educating students with VI in regular schools (Bardin & Lewis, 2008; Kapur, 2013). Lack of specialist services, books and materials in suitable channels to allow equal access to specialised curricula, stigmatisation, and isolation were some of the challenges noted. These aforesaid barriers seem to limit their academic performance in attempting to achieve their educational goals in life. Again, research has also shown that students with VI are often under-identified and under-served in the inclusive settings (AFB, 2012). Oppong et al. (2018) concluded that sign language interpreter support was insufficient at the University of Education, Winneba, in a study on the

academic experiences of deaf students. Other studies have found that the assessment practices and teaching strategies used by regular education teachers in inclusive environment are not successfully addressing the academic needs of students with VI (Bayram, 2014; Mwakyeja, 2013). However, it appears that little is known about students with VI access to information and nature of the instruction they receive at Wenchi Methodist Senior High School. This literature gap compelled the researcher to delve into the study in order to fill the gap.

Purpose of the Study

The purpose of the study was to explore the academic and social experiences of students with VI at Wenchi Methodist Senior High Schools. The study specifically sought to:

1. find out instructional strategies teachers use to teach students with VI at Wenchi Methodist Senior High School.
2. explore how information is made accessible to students with VI at Wenchi Methodist Senior High School.
3. find out how students with VI are assessed academically at Wenchi Methodist Senior High School.
4. examine the social relationship that exists among students with VI and their seeing counterparts at Wenchi Methodist Senior High School.

Research Questions

The following research questions were raised to guide the study:

1. What instructional strategies do regular teachers use to teach students with VI at Wenchi Methodist Senior High School?

2. How do students with VI access information at Wenchi Methodist Senior High School?
3. How do regular teachers assess students with VI academically at Wenchi Methodist Senior High School?
4. What is the nature of social relationship that exists among students with VI and their seeing counterparts at Wenchi Methodist Senior High School?

Significance of the Study

The results of this study would help in revealing social and academic experiences of students with VI at Wenchi Methodist Senior High School. This would enable the school authorities find ways of improving on academic and social experiences of students with VI in the school. In addition, the results of the study would help in finding out what instructional strategies teachers use in teaching students with VI in the school. Also, the results of the study would help in revealing how information is made accessible to students with VI. This would also enable teachers find means of making information accessible to students with VI. Further, the findings of the study would help in finding out how regular teachers assess students with VI academically in the school and the nature of relationship that exist between students with VI and sighted peers in the school. This information would help the school authorities find ways to improve on the nature of relationship between those with VI and their sighted peers in the school. Finally, the results of the study would inform educational policies and serve as a reference materials for other researchers in similar studies.

Delimitations

Even though, there are students with VI in other inclusive and special schools in Ghana, this study focused only on students with VI at Wenchi Methodist Senior High School in Bono Region, Ghana. This school was selected for this study because it is one of Ghana's oldest inclusive schools for students with VI. The study focused on only Senior High School Two and Senior High School Three. Senior High School One was not involved in the study because they do not have much experiences compared to those in Senior High School Two and Three. Furthermore, the study was delimited to only academic and social experiences of students with VI. Academic experiences of students with VI is critical because when they experience quality education, it helps them to compete with other students for employment on the job market. Lastly, positive social relationship experience received in the school would enable students with VI to fit in any society they find themselves.

Limitations

One major limitation of the study is concerned with the self-reported nature of the research instrument that was used to collect data for the study. The researcher had no control over the authenticity of the information the participants gave. Furthermore, the participants were sceptical in giving information that reflected the real situation in the school. The findings of the study may not be generalised to other settings because the study was conducted in only Wenchi Methodist Senior High. However, the researcher put in some measures to reduce the impact of these limitations on the findings of the study. They include: the researcher assured the

participants of confidentiality and anonymity. That is, the information they gave was strictly for academic purpose and will not be released to a third party. The identities of the participants of the study were made anonymous.

Operational Definition of Terms

Experience: Active engagement in activities or actions that leads to the acquisition of understanding or abilities

Students with VI: Is a broad term that refers to students who have varying degrees of vision loss. It can refer to students with low eyesight as well as those who are blind.

Sighted Peers: Sighted peers are students who do not have VI.

Academic Experience: It is the active involvement in tasks or activities related to academic purposes.

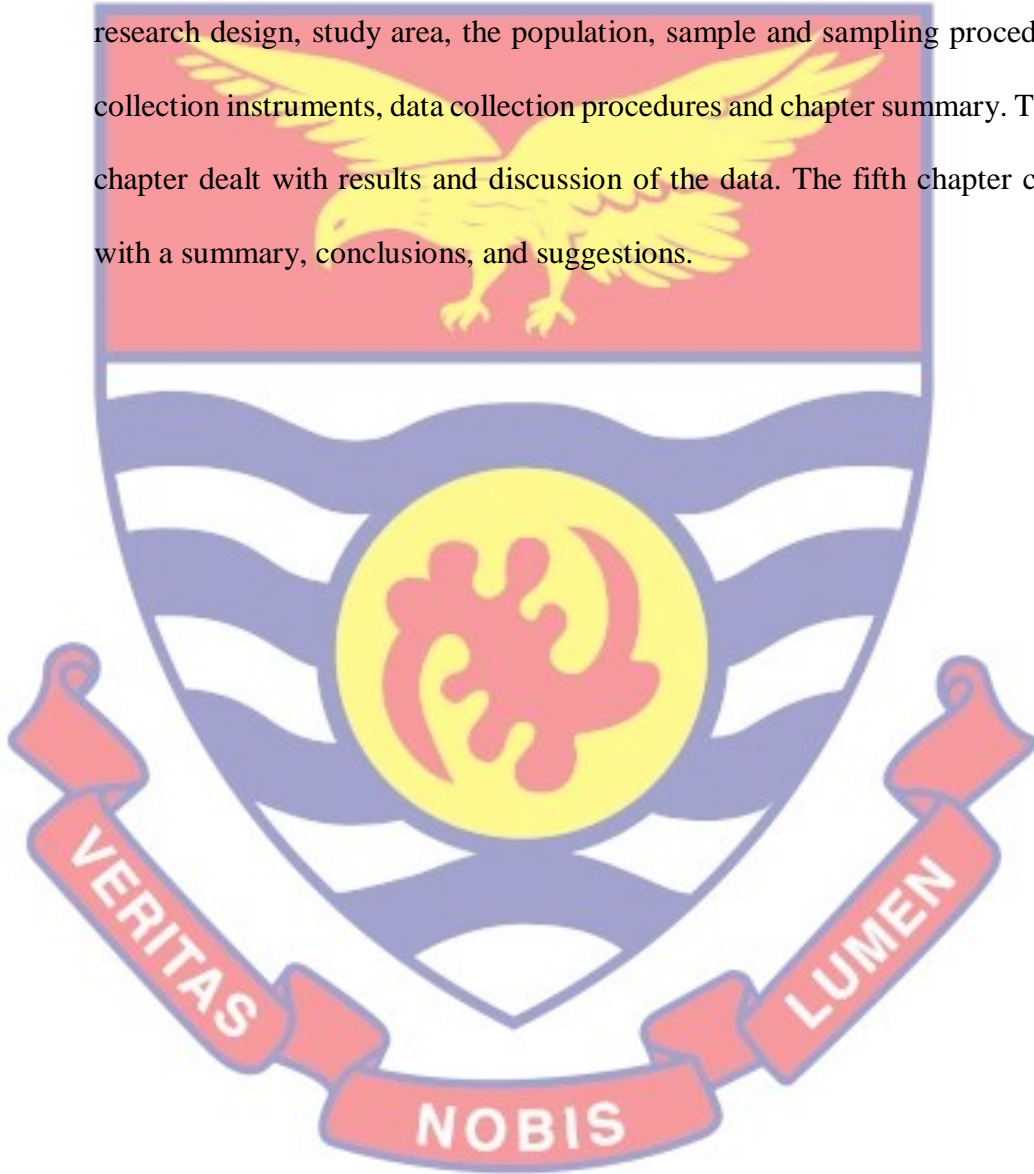
Social Experience: This is full involvement of someone in social related activities.

Inclusion: It is the education of students with VI with sighted students in the same classroom.

Organisation of the Study

The entire study sought to assess the academic and social experiences of students with VI at Wenchi Methodist Senior High Schools. The researcher organised the entire study under five chapters. The first chapter is the introduction. This comprises the following: background to the study, statement of the problem, purpose of the study, research questions, significance of the study, delimitations, limitation, operational definition of terms, and organisation of the study. The second chapter covered literature review. It provides theoretical framework and

empirical evidences on regular teachers teaching strategies, access to information, the nature of assessment and social relationship that exist among students with VI and their seeing counterparts. To address important topics, the themes were divided into sub parts. The third chapter highlighted the methodology. This comprises the research design, study area, the population, sample and sampling procedure, data collection instruments, data collection procedures and chapter summary. The fourth chapter dealt with results and discussion of the data. The fifth chapter concludes with a summary, conclusions, and suggestions.



CHAPTER TWO

LITERATURE REVIEW

Introduction

The main purpose of the study was to explore the academic and social experiences of students with visual impairments (VI) at Wenchi Methodist Senior High Schools. This chapter presented an overview of some related literature and summary of the study. The review was done under the following subheadings:

1. Theoretical Framework
2. Conceptual Review
3. Empirical Review

Theoretical Framework

The study was based on Tinto's integration theory. Learner incorporation into an institution, according to Tinto, can take place on two levels: intellectual and social. Academic integration happens when students come to be involved in the institution's intellectual life, whereas social incorporation happens when students form bonds and relations external of the classroom. Despite their logical differences, these two notions interact and complement one another. This theory is founded on the idea that a student's ability to succeed in school is determined by the experiences he or she has in school (Tinto, 1975). As a result, a learner stayed in school to the extent that he or she felt academically and socially incorporated into the school's life (Braxton et al., 2004). He further added that, if learners' experiences are positive, it means the learner will succeed but if the experiences are negative, students will not succeed and may be dropped out from school. According

to Tinto, the social and academic integration of students are influenced by the engagement process that takes place in the classroom. He believed social integration was a stronger predictor than academic integrations. This means that social relations forms the emotional and self-esteem of the students. It appears that if a student is emotionally sound, he/she continues to stay in the school and perform exceedingly in academics. Tinto (1982) contended that a student's readiness for academic work, expectations and capability to be incorporated in the public life of an institution control the academic and social integration of the student. Furthermore, he indicated that a student's decision to drop or continue at an institution is heavily influenced by the quality or degree of academic and social integration into the school's life.

According to Tinto's model, the amount of engagement time students have with teachers and with other students, primarily oversees the social and intellectual development of students both inner and external the classroom. Although academic integration is more fundamental at this stage, social integration is still necessary because students rely on peer assistance to adjust to this academic environment. Students are more likely to continue engaged at an institution when they become active in its social and intellectual life (Tinto, 1993). Students who get more immersed into a college by creating personal networks, joining clubs, or participating in academic activities are more likely to stay than those who drop out. The theory's primary premise is that, if colleges offer ample designed chances for students to participate with the school, students would develop more incorporated and be around longer (Bailey & Alfonso, 2005).

The consequence of the theory to this study is that, for students with VI to be successful in the inclusive environment, their sighted peers and teachers must build positive social interaction inner and outside the classroom. Also, students with disabilities, particularly students with VI must feel a sense of belongingness in participating in co-curricular activities. Academically, if students with VI become satisfied with the teaching methodology teachers used, get access to information in the school and assessment practices suit them, they would be able to excel or perform very well academically as equal with their sighted counterparts.

Conceptual Review

Under the conceptual review, the following themes were reviewed;

1. Regular teachers instructional strategies
2. Access to information
3. Regular teachers' assessment practices
4. The nature of social relationship that exist between the students

Regular Teachers' Instructional Strategies for Students with VI

Making adjustments and offering adjustments are the techniques that schools employ to incorporate students with VI regular classrooms (Hallahan et al., 2012). Similarly, English (2011) suggested that changes to instruction and the classroom environment should be made. Classroom modifications will be diverse and ought to be designed to the individual desires of each student. However, there are some fundamental best methods that help you design the most appropriate adaptations. It's important to remember that it's not always easy for these students to become as self-sufficient as they are capable of becoming. To avoid the trap of

"learned helplessness," the classroom teacher should foster independence as much as feasible (Simon et al., 2010). Evidence from the literature supports how a student with VI should learn and the techniques that should be employed to offer teaching (Mastropieri & Scruggs, 2010). Learning is hampered by any degree of visual loss, and pupils with vision damage frequently need specialised teaching to understanding conceptions. Students with VI have special demands that require a multidisciplinary approach to education.

Students with VI are typically ignorant of what is going on around them and have limited opportunities to learn through incidental learning. These students learn in a variety of ways, including using their other senses (AFB, 2012). Thus, teachers ought to tailor instruction to suit students with exceptional needs particularly students with VI in the regular school. In order to address the educational needs of students with VI, suitable instructional books and materials (including braille), as well as specialist tools and technology must be integrated so that they can access the core curriculum (Sapp & Hatlen, 2010). Nyoni et al. (2011) stated that regular education teachers should have both relevant abilities and expertise in order to successfully and effectively support children with VI in regular schools. This means that if a teacher shows positive attitudes towards students with special needs, especially those with VI in the regular classroom, he/she would be capable to understand their needs in order to design appropriate instruction to meet their educational needs.

Whitburn (2014), contends that inability of students with VI to excel in the inclusive setting does not necessarily mean that they are incapable. However, if

instructors appropriately adapt their pedagogy and resources to their needs, they would be able to learn independently and perform equally well as their sighted counterparts. In view of this, it seems successful participation in learning by pupils with VI can be attained if there are modifications of teaching strategies, instructional materials and equipment as well as information in braille.

Vrasmas (2014), proposed a general set of procedures that should be incorporated in a teacher's and curriculum's instruction. Supportive learning, scaffolding, varied/malleable set configurations, and making fair alterations along the way centred on specific requirements are all examples of these approaches. Ornelles (2006), provides some instructional techniques/strategies that instructors should adapt to impart students with VI at the inclusive school. For instance, the use of questioning and answering, verbalisation of instruction, guided practice, writing boldly and appropriate contrast. However, Vrasmas (2014) is of the view that, co-teaching, differentiated instruction and individualised education plan techniques/strategies promote effective teaching and learning at the regular school environment. So this study would review instructional strategies from how teachers adapt co-teaching and differentiated instruction to teach students with VI in an inclusive classroom.

Co-Teaching: To strengthen the efficiency of inclusion, then co-teaching must be practice in the classroom. The classroom instructor and the special educator share teaching responsibilities in the classroom with co-teachers. This concept permits the special education tutor and the classroom instructor to collaborate on student learning. Friend (2018), views co-teaching as two way affairs, where the regular

education teacher does the coaching in the classroom while the special education teacher goes round to offer support to students with special needs during instructional hours. Collaborative or co-teaching happens when multiple or more teachers work together to co-plan, co-instruct, and co-assess a group of diverse students in order to meet their needs (Dove & Honigsfeld, 2017). In a regular education classroom, cooperation is an educational tactic in which regular education teachers and special education instructors' segment equal duty for presenting academic material and dealing with the behaviour of a diverse group of students (Fluijt et al., 2016).

Kison (2012), submitted a model in which the collaboration was discussed comprehensively. The inclusion of this effective strategy motivated teachers to endure participating in the co-teaching process, according to the study. It also helps in classifying the variables that were most likely to prevent team teaching courses from continuing. Similarly, Kaur (2017) indicated that instructors must understand and recognise their learners' learning modes, and that major measures must be measured in order to expand the learning atmosphere. Gabarre and Gabarre (2010) agreed with Kaur (2017) that the use of collaborative teaching can help children with special needs education, particularly students with VI, achieve higher academic results. Co-teaching serves as a powerful strategic tools in teaching students with disabilities because of the following reasons.

Heldens et al., (2016), claimed that a co-operative style had a favourable impact on the formation of a healthier learning setting inside schools, which was extremely beneficial to students' ability to increase their competence. This seems

that since the two teachers are well skilful to handle and provide instructions, they would be able to identify the gap in the students with disabilities in the classroom so that their potentials could be developed. Besides too, co-teaching, group teaching and collaboration shared work, tactics (Doppenberg et al., 2012), would surely benefit teachers' professional development while also assisting students in improving their learning capacity. It can be concluded that students with special needs enjoyed and valued co-teaching classroom in an inclusive school. This is because their educational needs are easily met.

More so, Preston-Smith (2015), implored general education and special education students' opinions on co-teaching. The results show that learners' like taking two teachers in the room and notice that the two teachers are not equal in stature, with the regular education instructor seen as more imperative. Another study by Abbye-Taylor (2014), looked into the perspectives of co-teachers and found that instructors who thought co-teaching was successful also claimed that inclusion benefited students academically and socially. Members stated developing constructive relations as their respect for each other's teaching skill and labour code augmented. This study also affirmed the assertion of Heldens et al. (2016).

According to King-Sears (2014), effective co-teaching comprised of five models: These model guide the teaching in the classroom during instructional presentation.

1. team teaching.
2. alternative teaching
3. station teaching

4. parallel teaching,
5. one teaching-and-assisting/teaching-and-observing,

One-Teaching-and-One-Assisting Model: In this framework, equally trainers are present in the classroom, but one of them spearheads the teaching by presenting the teaching material. Simultaneously, the other instructor assists the primary teacher by offering additional information to enhance pupils' learning or by monitoring them as they work (King-Sears, 2014). This is the most prevalent method of instruction, in which a regular education instructor leads the class and a special education instructor assists individuals with impairments (Majchrzak, 2015). As a result, it is suggested that the subordinate tutor take field notes on a specific category of students' academic or social behaviours, or all students' academic or social behaviours (Friend & Cook, 2013). This model seems to be effective tool in the classroom because the students with special needs especially the students with VI enjoy more time with the special educator in the classroom during instructional hours. This also seems to motivate them to cope and compete with their sighted peers in the inclusive environment.

Station Teaching Model: Once each instructor is in charge of teaching separate or similar material programme in different portions of the classroom, this is known as station teaching. The class is separated into two units, with each co-teacher in charge of developing and delivering the topic for their segment (Friend & Cook, 2013). This co-teaching style necessitates more arrangement time than the preceding model, but it can be employed with a lesser teacher-to-learner ratio if both teachers take vigorous teaching responsibilities to help all students (King-

Sears, 2014). Takacs (2015) postulated that station teaching is favourable for students with special needs and necessitates students to be positioned in diverse sets notwithstanding of their incapacities.

Parallel Teaching Model: In this type of co-teaching, a special education tutor and a regular education instructor effort together in the similar classroom to provide instruction to separate groups of students with varying needs (King-Sears, 2014). As a result, this strategy encourages students to become more involved in learning opportunities and tailored training. To guarantee that both team teachers cover the similar subject and interconnect effectively with every set, this technique necessitates extensive planning (King-Sears, 2014).

Alternative Teaching Model: When one instructor is in charge of imparting education to the majority of students while the other is in charge of working with a small group of pupils, this is known as alternative teaching. This model implies that students with disabilities and special education needs who are unable to comply with regular education services during teaching and learning are assigned to a special educator who provide instructions.

Team Teaching Model: Team teaching involves the general education and special education teachers sharing equal voices and duties in the classroom by teaching the entire class in turn (King-Sears, 2014). This strategy is the most difficult to implement since it necessitates substantial contact and cooperation from the coaches (King-Sears; Scruggs et al., 2007). Irrespective of the co-teaching ideal, both special education and regular education teachers must demonstrate a strong pledge to convey teaching, design lessons, assess learner work, and add value to

Individualised Educational Plan (IEP) for students with disabilities (Friend, 2016). To that, Nunes (2018) performed a study on teachers' perceptions on co-teaching. The research concluded that co-teaching is an effective teaching technique that, when used by teachers in the classroom, may meet the academic/learning demands of students with VI. When students with exceptional needs are positioned in a regular education classroom, the general educator and special educator must work together (Bronson & Dentith, 2014). This assertion suggests that no single teacher can meet the educational desires of students with special needs.

Differentiation of Instruction: In inclusive classrooms, differentiation is a recommended approach (Gibson, 2013). Apart from that, differentiation usually entails active and teacher-led changes to the content, method, result, learning situation, or learning time centred on a student's preparedness or additional significant learner feature like learning choice or desire (Tomlinson, 2014). Tomlinson goes on to say that teachers can adjust content for students, provide multiple learning options, utilise different assessment tools, and adapt the learning environment to match students' requirements. Teachers are proactively modifying programmes, training techniques, resources, learning activities, or student product desires to better suit students' learning goals, according to these theories. Gibson (2013), in conjunction with Tomlinson (2014), proposed that the effective use of differentiated instruction necessitates teachers to demonstrate their pledge to building learning available to students by employing springy coaching practices in terms of environment plans, tiered instruction, and assessment procedures. Presentation, cultural experience, linguistic proficiency, gender-based learning

favourites, study habits, drive, concern, and self-regulatory capabilities all vary widely across students (Dijkstra et al., 2016). As a result, in order to address those variances, teachers must differentiate their education successfully. Pozas and Schneider (2019) proposed a taxonomy of practices that should provide instructors with practical and specific recommendations on how to develop and differentiate their education in order to adequately solve the heterogeneity of students' needs in the classroom. The classification of practices is separated into six categories:

Tiered Assignments: Teachers use the same curriculum material for all learners, but change the deepness of content, the learning action process, and/or the sort of result created by the learner according to the students' preparedness, concern, or learning mode. (Richards & Omdal, 2007). Thus this practice ensures that students do not learn at the same pace, so when given assignment or task, teachers should consider the abilities level of the students.

Intentional Composition of Student Working Groups: This practice permits the teacher to establish absolutely homogeneous or heterogeneous subgroups based on performance, readiness, and interests of the students. In this approach, subject matter is divided into small blocks or units. For each unit, the teacher gives uniform instructions to the whole group of students. Thus, the creation of subgroups will enable the teacher to render effective teaching to students who are slow learners. This is because the students with special educational needs would be easily identified and attended to quickly by the teacher.

Tutoring systems within the learning group: Great capability learners' earnings up the role of teacher assistants and gives instruction to low ability students. This

is very important because students sometimes understand concept better by a peer tutor. According to Friend and Cook (2013), this practice of differentiated instruction motivates the students with VI because they have other opportunities to receive additional tuition from a hardworking and intellectual students in the classroom. These roles may continue for a long term.

Staggered Non-Verbal Learning Aids: This is a carefully and purposefully planned sequence of learning aids with varying levels of difficulty. The learning aids must simply offer the bare minimum of information required for a pupil to overcome learning difficulties. This practice also permits the teacher to modify his/her instruction to suit all categories of students in the classroom.

Mastery Learning: As a result, the teacher should enforce all instructional approaches to ensure that all students meet minimal criteria (along with greater standards for more advanced pupils). This entails keeping a tight eye on students' progress. This approach of tailored instruction is extremely important for the training of students with VI since the teacher will be monitoring and evaluating the students' academic development.

Open Education/Granting Autonomy to Students: Students are in charge of their personal learning and can choose which things to study on their own. Learner optimal of activities, station work, project-based training, portfolios, and other similar techniques are examples of such methods. This practice of differentiated instruction encourages creativity and innovative in the student. Here the students are given the opportunity to develop their potentials in order to become productive person in the society.

In summary, differentiated method of teaching students with VI gives students full and individualised attention from the teacher/tutor.

Access to Information: Access to information is seen as a social right and very important to all students regardless of their disabilities, therefore, academic libraries should offer data to students with VI in the format that is suitable and usable to them (Majinge & Stilwell, 2014). In the modern world, technological changes have widened/increased access chances to information, communication and education for people with disabilities. Such changes allow students with VI the access to knowledge in order to reach the peak levels of schooling, independence and participation in the cultural life of their community. Kapoor (2012) stated that in many nations, assistive technology has revolutionised the lives of people with VI by allowing them equitable access to services and public spaces. According to the literature, technology has not only provided access to computers and all of their benefits, but it has also led to the development of various specific gadgets that have gone a long way toward solving the challenges encountered by people with VI. According to the literature, in the case of persons with VI, it is frequently the use of assistive technology that ensures their equal contribution in a variety of public activities, ranging from meetings and acting to more peculiar activities such as reading books, accessing information, or engaging in entertaining activities.

A research conducted by Morris (2014) on how students with VI learning expeditions in scholastic environments differ by person qualities and prior experiences, as well as the type and structure of the institution they attend, are all factors to consider. Findings shown that inclusion is only fruitful if instructors

deliver effective learning chances for students with VI. It was also revealed access is influenced by the nature of the visual impairments, information retrieval methods, and the attitudes and talents of the students. This approach is especially important in further education settings because of the emphasis on the practical. It can be concluded that for IE to be efficacious, teachers and school administrators need to ensure that adequate access to data by students with VI are provided. This present study review access to data by students with VI in terms of usage of assistive technology, access to braille materials and availability of large print.

Assistive Technology: Assistive technology for the persons with VI is related with technologies, equipment, devices, apparatus, services, systems, processes, and adaptive equipment that enable them to overcome various physical, social, infrastructural, and obtainability challenges to individuality and live vigorous, productive, information-accessible, and autonomous lives as equal participants of the public (Hersh & Johnson, 2008). Šehić and Tanacković (2014), opined that the most important thing that facilitates students' seeking and using of academic information is adaptive technology. Šehić and Tanacković added scan print materials, enlarge text/magnify screen, translate documents into audio formats, can help students with VI to access information on the internet with the use of speech synthesisers, and so on to seek and access (digital) information and modify it for use.

In view of that, many people see assistive technology as facilitator for transformation such as changes in working conditions, information management and exchange, educational techniques, learning methodologies, systematic

research, and data access (Mikre, 2011). Hence training them in use of assistive technology will enable them to access the school curriculum in order to fit in the regular school environment. Job Access With Speech (JAWS) for Windows is a wonderful program that allows people with VI to access and use any of the information and apps on a computer by transforming the text on the screen into speech or refreshable braille displays (Smith et al., 2012).

Lucky and Achebe (2012) enumerate the most essential assistive technologies that benefit students with VI in terms of easy access to information and effective learning. The Kurzweil Reading Machine, the Computer, Video Conferencing, the Internet, and the World Wide Web (WWW) are just a few examples. In addition, for students with VI, the use of various supportive technology tools such as screen readers, Braille translation software, Braille writing tools, Closed-Circuit Television (CCTV), Braille embossers, and scanners is critical. Screen magnifier is one of the assistive technologies listed by Eskay & Chima (2013). This is software that allows you to magnify text or graphics on your computer screen up to sixteen times its original size. A screen reader is a piece of software that reads the contents of a document aloud to the user. Voice recognition software allows the user to enter data into the computer using only their voice. CCTV is another excellent assistive technology for those with VI. This device would enlarge print from any source (books, papers, letters, etc.) and display it on a television screen. The size of the letters can be adjusted by the operator, ranging from slightly bigger than usual to enormous sufficient to seal the screen. California Department of Social Services (California Department of Social Services, 2012).

Assistive technologies are excellent instruments for enhancing the learning of students with VI to access and obtain information, communicate with friends, and share knowledge in the same way as sighted individuals do (Ahmad, 2015; Borg, 2011). Assistive technology is critical for supporting the inclusion of students with VI, particularly in learning activities. Furthermore, suitable assistive technology allows students with VI to rapidly acquire information and complete tasks, allowing them to attain the greatest level of individuality probable (Smith & Kelly, 2011). Overall, Information Communication Technology (ICT) is being used to improve people's quality of life through increasing efficiency and effectiveness in various socioeconomic areas, notably education.

Braille Media/Materials: Students with VI require unique services, such as braille books and materials, as well as specialised equipment and technology, in order to have equitable access to core and specialised curricula, as well as to contest effectively in school and subsequently in society (AFB, 2013). Braille, according to AFB (2015), is a means of communication for people with VI that contains six elevated dots in a single cell that may be read with the fingers through touch by students with VI or low vision, and with visual reading by sighted people. Braille, according to Iroegbu (2010), is a tactile reading system made up of 63 different combinations of elevated dots placed in a six-dot pattern called a cell.

Braille accessibility is particularly important in the training of students with VI for the following reasons: first, being capable to read and write in braille promotes the right of the student with VI to access data on an equivalent basis with their seeing counterparts (Iroegbu, 2010). Second, they argue that not only reading

and writing braille is an active form of communication, but it is also an established method of obtaining and improving literacy for students who are blind or have extremely impaired eyesight. Furthermore, reading and writing braille gives students with VI a sense of freedom since they can label their own items and read and write without assistance. Braille reading and writing, once again, opens doors to education and employment opportunities, as well as allowing students with VI to interrelate with communication autonomously in their personal time and space.

Odoh (2016), looked into the impact of braille reading and writing on the academic achievement of students with VI in Plateau State's Jos metropolitan. The findings revealed that students with VI's ability to read and write braille had an impact on their academic achievement. It was also revealed that the availability of braille materials have a substantial impact on the academic achievement and access to information of students with VI. Centred on this discoveries, it can be established that braille plays a central role in the education of VI students and improves their access to understanding.

In spite of the augmented availability of acoustic materials, braille has remained the basic means of conceptualising spellings, sentences, paragraphs, punctuation, numerical configurations and presentation of simple diagrams, charts, tables and graphs in tactile form by persons with VI. Although individuals with VI are able to listen to audio books or a personal reader to access print materials, and can write by verbalising to someone. However, many people find that using braille materials allows them to acquire information faster and do jobs that require reading or writing more effectively (Halliday, 2004).

Large Print: A person with low vision has trouble doing pictorial tasks, even with recommended remedial glasses, but can improve his or her capacity to do so by employing compensatory visual methods, low vision and other technologies, and modifying the surroundings (Legge, 2016). A person with a visual acuity of 6/18 (20/63) or less in the better eye with the best correction, or a visual field smaller than 10 degrees from the point of fixation, according to WHO (2018), is considered poor vision. These categories of vision impaired have residual vision that permeate them to read print. However, they encounter difficulty in performing daily tasks including the use of sight and need to use bolded print for reading, strong magnifying tools and other alterations (Friend, 2008). This appears that their ability to access print papers appears to improve their information accessibility.

Some experts believe that enlarging the text will help children with impaired vision, but raising the text size to 120 percent on a copier or increasing the font size to 18 or 22 points may not be enough. Large or magnified text reduces the number of letters and words fixed in a visual span, resulting in more fixations per line (Bosman et al., 2006). Children with impaired vision may find it challenging to conclude the appropriate or crucial print size for effective reading. According to research, Century Gothic typeface and font size 18–20 were produced and used for students with low vision, while braille documents were designed and used for students with blindness (Çakmak et al., 2014). A descriptive survey was undertaken by Argyropoulos et al. (2019) to examine the favourites and options of students with visual damages on reading ability mode for learning. Despite this, the majority

of participants chose attending ('acoustic reading') as the most effective presentation vehicle for their studies.

Regular Teachers' Assessment Practices for Students with VI

Every human being on the planet relies on assessment to live their lives. According to Norton (2007), evaluation teaches students around whatever they ought to focus on in direction to succeed in school and also assists as a basis for response. This shows that how and what students learn is heavily influenced by evaluation. Other than end-exams, assessment refers to methods that can alter what students have already grasped and provide confirmation of their performance (Perrotta, 2014; Gozuyesil & Tanriseven, 2017). Teachers decide about students' learning and the aid they require using adjustable assessment (Eggen, 2016; Gozuyesil & Tanriseven, 2017), differentiate teaching, and involve them in adapted assessment experiences (Chiappe et al., 2016). As a genuine attempt to improve classroom processes through a variety of methods, assessment also depends on a varied use of resources available (Mowl, 2006). Educators increase their understanding of what students have learned, how efficiently they completed assigned activities, and the effectiveness of materials, methods, and approaches employed on students' learning through evaluation (Zacharis, 2010). It can be said that teachers' adaptation for assessing students with exceptional needs and disabilities, particularly students with VI in academics has a positive effect on their academic performance.

Craddock and Mathias (2009), established in their studies that, both students with and without disabilities in universities have harmful involvements in

assessment and students with disabilities were found restricted by the modes of assessment. Meaning that, the university does not vary their assessment in many ways. Shepherd (2006) reiterated on the negative assessment experiences of students with special needs, arguing that students with special needs may have been deprived in some activities during the teaching and learning process, and that if assessment tools are skewed towards activities that benefit seeing learners, such as making extensive use of graphics, they will be twice as deprived. The context in which the assessment is conducted, the forms of assessment used, and the final once-off summative tests are all difficulties that students with disabilities confront in assessment processes (Hanafin et al., 2006). Students with impairments are concerned because of their unfavourable experiences. If students with VI in higher education institutions are to enjoy equal opportunities and take part entirely in the training and learning and valuation procedure as their non-disabled counterparts, issues of access and fairness need to be addressed (Podzo & Chipika, 2019).

To minimise the uneasiness of students with VI in situations where summative assessment is inevitable, Salisbury (2008) describes the following strategies:

Time Allowances: Students with VI should be allowed extra time to complete tests, as determined by the particular teacher based on the assessment's nature and purpose.

Alternative Methods of Assessment: When formal evaluation methods are not effective for students with VI, the teacher ought to evaluate them using non-formal approaches such as class work, portfolios, or oral presentations.

Modifying Assessments: This should allow students with VI to participate fully in the assessment without unfairly benefiting them.

According to a research by Waterfield et al. (2006), employing alternate evaluation methods benefits both students with and without impairments. As a result, teachers must make the required adjustments to their assessment of students with special needs. Adaptations made in assessment methods in the general education classroom, such as extra time allowance and adapted materials, will be examined in the instructors' assessment practices.

Extra Time Allowance: Students with VI need extra time for the completion of examinations (Mullins & Preyde, 2013). Gebrehiwot (2015) claims that students with VI may have been disadvantaged in specific activities throughout the training and learning process due to the adaption of assessment approaches that may be made in response to their needs. They would be doubly disadvantaged if assessment instruments are oriented near activities that favour seeing students, such as making extensive use of visuals. According to the same author, techniques of assessment employed in university classrooms should allow students with VI to demonstrate the complete range of learning they have accomplished. According to Gebrehiwot (2015), when changes are made to learning outcomes, material, or learning activities, an equivalent change must be made to the evaluation method as well.

A study conducted by Chiparaushe et al. (2011) on challenges, chances and threats faced by students with disabilities at higher education in Harare, Bulawayo and Midlands provinces of Zimbabwe discovered that students with VI enjoyed extra examination time of up to 60%, while those who had other forms of

impairments were left out. Equally, a study by Chataika (2007) established that students with VI were allowed additional time in examination and a separate examination room. One participant in that study said that, *“I am allowed a quarter of an hour extra time for reading and so on. It’s adequate for most exams.”*

If students with disabilities in higher education institutions are to have a positive educational experience, equal chances and take part fully in the teaching, learning and assessment process as their non-disabled counterparts, issues of access and equity need to be addressed (Podzo & Chipika, 2019). Also, Makanya (2015) contended that substitute curricular materials, pedagogical and inclusive assessment practices are essential to meeting the needs of students with VI. Due to the nature of their impairment, students with VI do their work very slowly, therefore extra time is essential for them to digest visual information and complete their written projects (Salisbury, 2008). Persons with limited vision, for example, take substantially longer to read a book than students with normal eyesight. For students who are blind, reading and writing in braille, as well as obtaining information through tactile bases, take up a lot of time. It can be deduced that making provision for extra time during assignment, classwork and exams for students with special needs mainly those with VI in the general classroom, would encourage their persistence in the school.

Adapted Writing Text/Materials: Among many other concerns, specific modifications and adaptations to the assessment of students with VI are required, necessitating cultural variance (Makanya, 2015). According to Marder (2006), students with low vision use large print, assistive technology, and optical and non-

optical devices to access the curriculum, whereas students who are blind use tactile formats, braille note takers, braillewriters, books on tape, and/or screen access software to access the curriculum. Curriculum access difficulties are also important in the evaluation process. Marder (2006) further contends that if the above adaptations are made available in examination and assignment, student with VI can perform equally well in standardised exams. To help students with VI, assessment resources need to be modified. For instance, printed text can be adjusted through enlarging the font size, bolding the text, enlarging background, toting colour, and altering spaces between characters (Mastropieri & Scruggs, 2010). This enable students with low vision to access the materials and complete the exam with ease. It's critical to emphasise that learning objectives for people with VI should be fundamentally the equivalent as for everyone else. Students with VI need explicit mediations as well as changes to their educational programs (AFB, 2011). Students with VI are capable of learning, but their visual senses are limited.

The necessity to access print materials using other techniques affects students with VI's full participation in regular education classrooms (Cavanaugh, 2002). Cavanaugh (2002), asserted that when students with VI satisfied with the participation of assessment procedure such as test and assignment, encourage their persistence in the school. Assessment materials should be made available in braille formats and other alternative for students with blindness to have access (Gompel et al., 2004). Gompel et al. added that the application of assistive technology such as screen reader, CCTV and talking phones among others can be useful adaptation for students with VI to access reading in order to participate fully in the assessment

process. This is consistent with the views of Marder (2006). Therefore, inclusive school should make provision for such supportive technologies and incorporate them in teaching and learning process.

Social Relationship that Exist Between the Students with VI and the Sighted

Peers

Social relations with peers is a crucial factor in promoting access and participation in positive life experiences (Estell et al., 2009). Mainstream schools give students with special needs the chance to develop pleasant relations with their sighted peers and interactions with peers (Parvin, 2015). Confident public relationship are crucial because they play a role in shaping people's lives of students with special needs and enable them to succeed academically in an inclusive setting (Marshall-Reed, 2010). The form of social relations of students meaningfully impact on the social, emotional and academic performance of the students regardless of the differences that might exist. When students cultivate positive relationships with peers, they may experience higher self-esteem and motivation in school, which are prerequisites to academic success (Parvin, 2015).

Social relations give students chances to upkeep about and try to understand others and to react to the moods, needs and apprehensions of their friends (Marshall-Reed, 2010). Within the context of social relations, students with disabilities learn the customs and values of peers and also develop a linkage of supports (Carter et al., 2005). Students with VI face encounters in gaining positive social interactions since they are neglected in social activities. Students with VI, according to Roe (2008), need to acquire self-awareness and a range of social skills

through a variety of experiences. The author went on to say that possibilities to interact with others should be built into daily whole-class activities and taken advantage of as they arise.

Several studies and literature supported the fact that confident public relations between students with disabilities and their non-disabled counterparts impact greatly on the academic performance of the former (Awini, 2015; Vacca et al., 2011). George and Duquette (2006), adopted a qualitative approach to examine the psychological active engagement of a student with impaired vision in the United States. 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 study's main findings were that the psychosocial development of children with low vision isn't necessarily hampered by restrictions in or perceptions of VI, and that these students do not always struggle with peer relationships.

A similar study was conducted by Kasiram and Subrayen (2013) on the social exclusion of students with VI at a tertiary institution in KwaZulu-Natal. The study employed the exploratory design. Convenient sampling technique was used to select 15 students with VI from two campus sites of the university as participants for the study. For data collection, semi-structured interviews and focus group discussions were used. Abuse of power was one of the study's results, which presented itself in a variety of ways and at many levels across multiple structures,

including nuclear and extended families, mainstream schools, societies, and universities. The study's findings also revealed that disability and poverty had a dualistic, parasitic connection, and that exclusion was formed and carried out by superior or dominating groups in society, resulting in confinement or incarceration that was not accidental.

These studies by Kasiram et al. (2006) seem to reveal inconsistent 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 VI and exclusion from social activities. The findings of this study, which also employed the qualitative approach, including the usage of interviews and observation as data collection instruments, and thematic data analysis would expected to add more knowledge about experiences of students with VI. This present study tries to fill the social gap that exist between students with VI and the sighted students on the kind of friendship form of students with disabilities, cooperative learning with sighted peers and participation in extra-curricular activities among students VI

Friendship Form: Friendship, according to Gordon, Feldman and Chiriboga (2005), is very essential in the lives of many people. Friendship can also be seen as a kind of social relationship between people that promote shared feeling of trust, affection and support (Gordon et al., 2005). It is also a critical factor in the social, cognitive and emotional development of students (Tipton, 2011) including students with disabilities. Friends are persons who devote time together, engage in more extreme public activities together, and have advanced levels of collaboration (Bowker, 2004). Relationship provides the youth with the opportunity to learn

about peer norms, values, accepted social behaviours and develop independence and other appreciated life skills (Brown & Klute, 2003; Carter et al., 2008; Gifford-Smith & Brownell, 2003).

According to studies, students with sensory issues have a harder time forming relationships with their peers than other students with disabilities, and they are more likely to become secluded in the classroom (Chamberlain et al., 2007). Students' acceptability in their age type is important for their social and academic growth (Schaffer, 1996). However, students with disabilities seem more vulnerable to being isolated (Pijl, & Frostad, 2010) and less accepted in inclusive classrooms. According to a research by Pijl et al. (2008), up to 25% of students with impairments were not welcomed, did not have a friend, and did not participate in a class subgroup, whereas just 8% of their typical counterparts had comparable experiences. This appears to support the idea that academics have recognised the social benefits of inclusion education; yet, inclusion does not always result in increased social contact and friendships amongst students with and without disabilities (Scheepstra et al., 1999). Another study by Lifshitz et al. (2007) focused on investigating the self-concept, quality of friendship and adjustment to blindness among adolescents with VI. In four of the six subscales, both groups of VI teenagers answered similarly to the instrument, while the sighted adolescents scored substantially higher on the other two subscales, which include enjoying leisure time together and disagreement and rejection. These findings were in line with those of Sacks and Wolfe (1998), who reported that adolescents with VI have poor friendships and social interactions because of their difficulty learning social skills

and incapacity to communicate nonverbally. As a result, it can be concluded that positive relationship between students with disabilities and non-disabled students in schools prepares students for life activities in society and improves their school attendance.

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, lesser set conferences can be scheduled to work on abilities the student needs to cultivate or strengthen consequently providing the opportunity for the student to engross in positive social interaction with peers (Roe, 2008). Slavin (2009) also contended 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 (Slavin, 2009).

In spite of the many benefits of learning in groups, students with special needs, especially students with VI, are least probable to be intricate in group events. A study conducted by Boruvkova and Emanovsky (2016), in a study including 207 students in first, second, and third grades at lower secondary schools in the Czech Republic, it was discovered that cooperative learning approaches aid in the integration of isolated students into the class. The numbers of isolated students in frontal instruction and cooperative learning are statistically significantly different, according to the findings. According to the findings, cooperative learning is

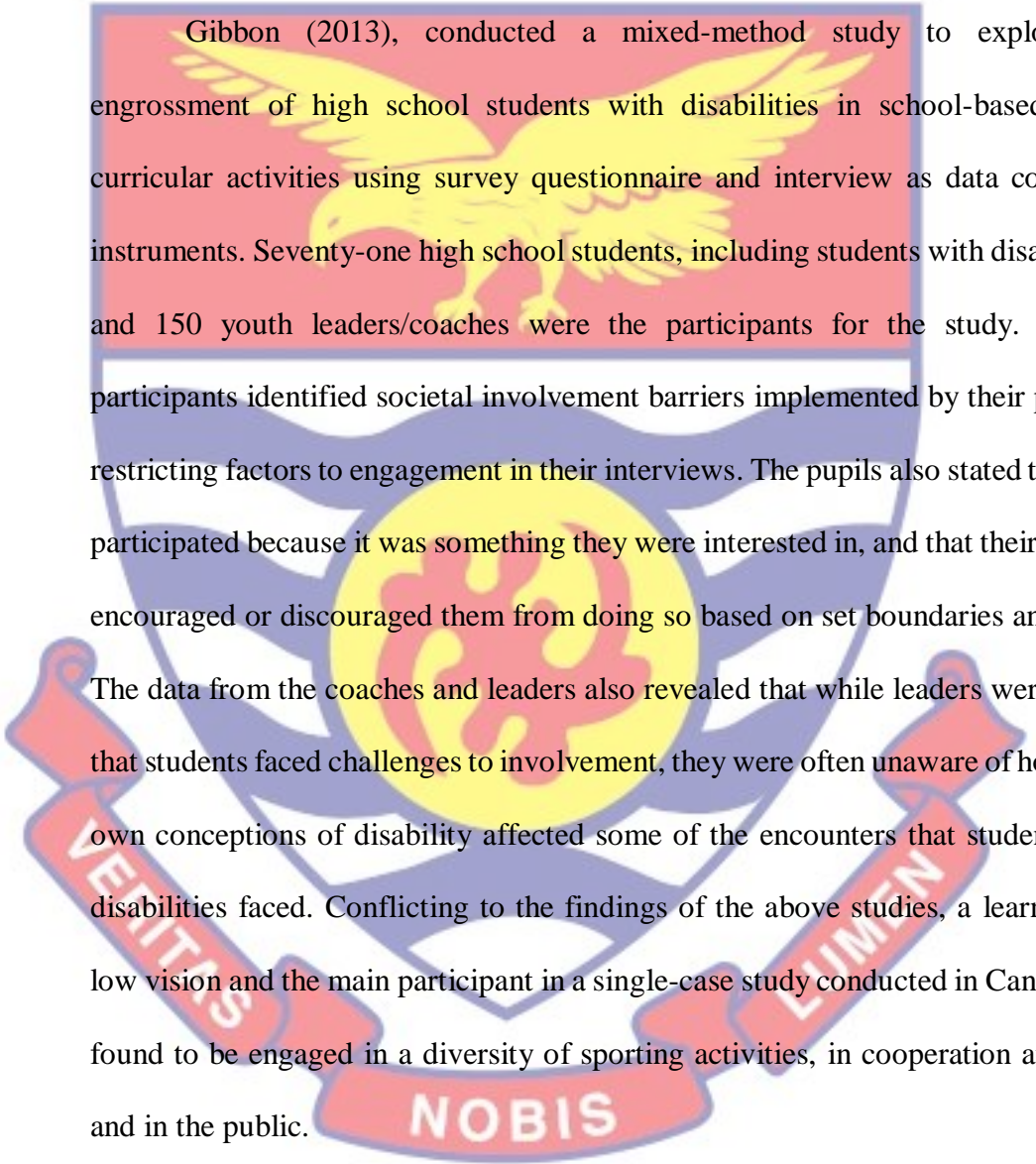
extremely beneficial in assisting marginalised students in becoming integrated into their team and reaping the benefits of group learning. Another study conducted by Rockson (2014) on the strategies teachers use to promote communication among students with VI and their sighted peers in selected integrated senior high schools in Ghana discovered that teachers used group work (peer teaching) as an approach to support social interaction among the two categories of students in the schools. It can be observed from both studies that cooperative learning plays significant role as far as training of students with special needs is concerned.

Participation in Extra-Curricular Activities among Students with VI: Extra-curricular activities, according to Massoni (2011), are activities that students participate in that are not part of the school's regular curriculum. They can take many forms, including athletics, clubs, hall week celebrations, religious fellowships, and plays. Massoni further indicated that:

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

In spite of the documented benefits of extra-curricular activities, students with disabilities, including students with VI, are generally less involved in recreational activities outside of school time (Solish et al., 2010), consequently, students with VI have less opportunities for interactions with sighted peers (Gore, 2015). In a small scale qualitative study, Shevlin et al. (2002) reported on the

experiences of students with disabilities who were forced to observe physical education rather than engage and were not permitted to go on school outings. When they were not permitted to engage in such extracurricular activities, the participants in the study felt isolated and became more informed of their differences.

The logo of the University of Cape Coast is a watermark in the background. It features a shield with a yellow eagle at the top, a yellow sun with a red face in the center, and a red banner at the bottom with the Latin motto "NOBIS". The shield is flanked by two red banners with the Latin words "VERITAS" and "LUMEN".

Gibbon (2013), conducted a mixed-method study to explore the engrossment of high school students with disabilities in school-based extracurricular 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. Student participants identified societal involvement barriers implemented by their peers as restricting factors to engagement in their interviews. The pupils also stated that they participated because it was something they were interested in, and that their parents encouraged or discouraged them from doing so based on set boundaries and roles. The data from the coaches and leaders also revealed that while leaders were aware that students faced challenges to involvement, they were often unaware of how their own conceptions of disability affected some of the encounters that students with disabilities faced. Conflicting to the findings of the above studies, a learner with low vision and the main participant in a single-case study conducted in Canada was found to be engaged in a diversity of sporting activities, in cooperation at school and in the public.

Despite attempts by peers to exclude him from games because he could not play competitively, the participant stayed motivated and persisted to participate in sports activities at school and community-organised sports. The student's parents

also pushed him to engage in physical activity by enrolling him in a variety of extracurricular activities such as hockey, wrestling, and skiing, all of which helped him develop physically and socially (George & Duquette, 2006). The gap in George and Duquette's work to be filled by the study is that, they concentrated only on the student's participation in sports so this study sought to 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.

Empirical Review

With regard to teaching tactics educators used to impart students with VI impressions of a middle school algebra co-teacher team that includes a regular education teacher, a special educator, and students with and without disabilities were studied by King-Sears et al. (2020). Though most students with disabilities believed the regular educator led the lesson, students without disabilities equally valued the role of the special educator. Furthermore, the majority of students stated that the special educator, or both the special educator and the general educator, gave assistance and clarification. Furthermore, Strogilos and Avramidis (2016) investigated the impact of co-teaching on students with special needs. The findings show that co-teaching benefits students, particularly students with impairments, in terms of involvement. Nunes (2018) conducted a study on inclusion teachers' perceptions on co-teaching, which is consistent with Strogilos and Avramidis (2016) and King-Sears et al. (2020) studies. The findings of the research affirmed that co-teaching is an effective teaching strategy that when teachers adopt in their classroom presentation could address the academic/learning needs of students with

VI. Team teaching has the latent to address the educational needs of students with special needs, according to their findings.

With the aspect of access to information, Rony (2017) investigated on how students with blindness and teachers' experiences ICT as a tool to support and include blind students in a school for all. The study utilised qualitative paradigm and the findings from the study showed that students with blindness use ICT as support in their learning process and it helps them to access information in inclusive school, if their teachers provide adequate ICT materials as support in their teaching practice. It was also revealed from the study that the teachers have inadequate experiences in the use of ICT in teaching students with blindness. A study conducted by Mwantimwa (2017) on ICT accessibility and usability to support learning of students with VI in Tanzania, which used a mixed methods approach and discovered that ICTs support innovative learning, encourage independent learning, and encourage participatory and collaborative learning, is consistent with the findings of Rony (2017).

Kenyon (2019), examined instructors' use of formative assessment to check for student understanding and adapt instruction in a qualitative case study research. Teachers collected and used formative assessment to improve lessons and determine student understanding from a small group of students, according to the findings. Teachers also lacked the knowledge, abilities, and techniques needed to use formative assessment to help all students accomplish their learning objectives. Smith and Amato (2012), examined the policies and procedures guides for large-scale tests in all 50 states and reported that the most typically authorised timing

variations were administration across many days, lengthier duration, or breaks. Stone et al. (2010) examined student performance on a state-wide English Language Arts assessment item by item and found that students with VI performed similarly on most questions when given proper accommodations. They recommended paying more attention to two features: uniformity in augmentation and the usage of classic text styles that students are acquainted with.

However, a study by Zvisinei and Govero (2019) on assessment involvements of students with special needs in advanced education found that students with disabilities still face assessment challenges although there are marked improvements on their accommodations. It can be said that Zvisinei and Govero's study is inconsistent with that of Zebehazy et al. (2012). Finally, with the patterns of social relationship, in a large scale study by Students with special needs have less encounters with social group and are less acknowledged than students without special needs (Koster et al., 2010). Also, a study conducted by Rockson (2014) also found that students with VI lacked the support and friendship of their sighted counterparts. The study further showed that students with VI interacted and related further by their companion group with VI than with their seeing counterparts. It can be affirmed that the findings of Rockson study are consistent with the work of Koster et al. (2010). To buttress with their study, a study conducted by Huure and Aro (2011) showed that students with visual impairments often feel loneliness and difficulties in making friends at the regular school. However, a study conducted by Awini (2015) on social involvement of children with VI in pilot inclusive schools in Ghana revealed that, there existed some levels of friendship with the sighted

peers in the school and this friendship network centred on being assisted by the sighted. The study also discovered that the patterns of interaction in the schools were quite positive for the blind.

Despite this, Fredricks and Eccles (2006) found that students who engaged in a larger proportion of extracurricular activity contexts had better academic adaptation and were fewer possible to engage in risk behaviours (such as drug and alcohol use) during adolescence.

Summary of Literature Review

Chapter two discussed literature review on academic and social experiences of students with VI. The review of related literature was done in three main segments. The first segment was the theoretical framework, the second section was the conceptual review and the last segment was the review of related empirical studies. Tinto integration theory was used to underpin the study. In summary, the theory states that if the experiences of students in the regular school are positive, the students' persistence in the school will be higher. However, if their experiences are negative, the students will drop or discontinue from the school. The second segment highlighted on the conceptual review on regular teachers teaching strategies, students access to information, regular teachers assessment practices and the nature of relationship that exist between the students. The study further reviewed literature on themes deduced from each conceptual review. Finally, empirical review was provided on each research question. It was found from the review that inclusive school needs adaptation and modification in teachers' teaching strategies and assessment practices. It was also discovered that in the

development of students with VI, having access to knowledge is critical. Finally the empirical review suggested that there is a gap that exist in the inclusive school concerning the students with VI academic and social experiences. This study sought to address this gap.



CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter discusses the research methods that was used for the study. They are presented under the following subheadings: research design, study area, population of the study, sample and sampling procedures, data collection instrument, measure to ensure rigour and trustworthiness, data collection procedures, ethical consideration, data processing and analysis, and chapter summary.

Research Design

The study was conducted using a qualitative research paradigm and a phenomenological research methodology. Because the study's goal was to learn more about the academic and social experiences of students with VI in an inclusive secondary school setting, phenomenological research was used. The adaptability of this research methodology was a factor in the decision. That is, it gives interviewers more leeway to delve deeper into the essence of students' academic and social experiences (Miles, Crisp, & Husnu, 2014).

Phenomenological research, according to Creswell and Creswell (2017), is a design of inquiry derived from philosophy and psychology in which the researcher describes the lived experiences of persons regarding a phenomenon as stated by study participants. Phenomenological research has inherent advantages and disadvantages. Also, it is good for smaller data sets and it has the freedom to investigate data deeply and infer beyond the text. Through broad and open-ended

inquiry, phenomenology research allows researchers to gather first-hand information about what participants experience (Rudestam & Newton, 2015).

Phenomenological research has been subject to criticisms. The most common is concerned with the lack of scientific rigour, robustness, and statistical generalisation (Woodside, 2010). Despite these criticisms, it has rigorous inductive analysis and transferability (Pilot & Beck, 2010). Again, qualitative researchers can arrive at insightful, inductive generalisations about the phenomenon under study through rigorous inductive analysis combined with the application of confirmatory procedures that address the believability of the conclusions.

Study Area

The study was focused on academic and social experiences of students with VI at Wenchi Senior High School. Wenchi Municipality is located in the western part of Brong-Ahafo Region of Ghana currently Bono Region. It lies within latitudes 730 and 805 North and longitudes 2: 15 West and 1: 55 East. It covers a total land area of 1,145 square kilometers and shares boundaries with Techiman Municipality to the west, Kintampo to the north-west, Tain District to the East and Sunyani Municipality to the South. The population of Wenchi based on 2010 Population and Housing Census is 89, 739 representing 3.9 percent of the region's total population (Ghana Statistical Service, 2014). The most predominant occupation of the people of Wenchi engaged in agriculture, representing more than half (57.8%) of the entire employment rate in the Municipality.

Population

The population of the study was 32 students with VI. This population was made up of 12 students with low vision and 20 students with blindness. Wenchi Methodist Senior High is an inclusive school that is made up of students with VI and sighted students. Table 1 shows the population distribution of the participants of the study.

Table 1: *Population Distribution of Participants*

Class	Population	Students with Low Vision	Students with Blindness
Senior High School 1	9	3	6
Senior High School 2	11	6	5
Senior High School 3	12	3	9
Total	32	12	20

Source: Field Data (2021)

Sample and Sampling Procedure

A non-probability sampling with purposive sampling technique in qualitative research was used (Pilot & Beck, 2014). The study focused on collecting quality data not necessarily a large number of data. Given this reason, a purposive sampling was used to sample 20 participants' with VI. Purposive sampling was chosen because it would enable the researcher to get the right type of participants that could provide useful information for the study. This sample size was used because they are the rightful students who can give accurate information to the study. Additionally, this sample size was based on recommendations given by Creswell (1998). He recommended that for phenomenological research, researchers

can interview 5-25 individuals who have all experienced the phenomenon. It is assumed that, with at least two years staying in the school, the students would have attained some level of experience in the school and would be able to give reliable and valid response to the interview items.

Furthermore, it is believed that after at least two years at the school, the students will have gained some level of experience and will be able to respond to the research questions in a reliable and valid manner. According to Pilot and Beck (2014), criterion sampling technique is the selection of participants based on pre-determined criteria of importance (that is, for this study, at least five years of teaching experience).

Purposive sampling, on the other hand, offers both advantages and disadvantages. It is cost-effective, time-effective, and may be the only viable option available if the quantity of primary data sources accessible to contribute to the study is restricted (Pilot & Beck, 2014). However, purposive sampling's flaws, on the other hand, include vulnerability to researcher judgment errors, a high level of bias, and the inability to generalise study findings. Table 2 shows the distribution of sample size of the participants.

Table 2: *Distribution of Sample Size of the Participants*

Class	Students with Low Vision	Students with Blindness	Sample size
Senior High School 2	6	4	9
Senior High School 3	3	7	11
Total	9	11	20

Source: Field Data (2021)

Data Collection Instrument

The study's data were gathered through a focus group interview. The researcher chose focus group interview 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 view than an individual view of a phenomena (Bogdan & Biklen, 2007). The students with VI were grouped into four. That is, group 1, 2, 3, and 4. Each group contained five participants making a total of 20. The interview method was used for the study because it provides in-depth information and allows respondents to express themselves based on their own experiences and viewpoints without being influenced by the researcher (Mantey, 2014).

The focus group interview was developed in five sections. The first section covered the demographic data of the participants. The second section dealt with research question one, the third section also covered research question two, fourth section dealt with research question three and lastly, section five covered research question four. The researcher adapted Acheampong's (2017) interview guide items on research question four (What is the nature of social relationship that exist between students with VI and their sighted peers at Wenchi Methodist Senior High School?) and developed the rest with the guide of the supervisor.

Measures to Ensure Trustworthiness

Unlike quantitative research where the credibility of findings is determined through reliability and validity, the credibility of findings in qualitative research is determined through trustworthiness (Pilot & Beck, 2009). The degree of confidence in data, interpretation, and methods employed to ensure the quality of a study is

defined by Pilot and Beck as trustworthiness. This study ensured trustworthiness based on the six criteria outlined by Lincoln and Guba (1986), and Guba and Lincoln (1994). They are: credibility, confirmability, dependability, transferability, and authenticity.

Confirmability

Confirmability is the assurance that the results, inferences and commendations are backed by the data collected and there is consistency and coherence between the actual evidence and the researcher's interpretation (Pilot & Beck, 2006). Confirmability is a substitute term to the concept objectivity used in quantitative research studies. The researcher used audit trail and peer review to ensure confirmability (Johnson & Christensen, 2012). This allowed another researcher to access the data and reach the same results as the initial researcher (Stommel & Celia, 2004). The researcher ensured that the findings reflects the interviewee's exact information given, and not the researcher's own perspective.

Credibility

Internal validity is a term used in quantitative studies to replace credibility. In qualitative research, credibility refers to the accuracy of the findings. It refers to how the researcher accurately reflected the truths of the research participants. The researcher employed member checking, make longer engagement, frequent debriefing and peer scrutiny were used as a way to ensure credibility (Lincoln & Guba, 1986). With the member checking, the researcher played the tape recording for the participants to listen. This was used to ascertain whether what was recorded by a researcher match with what the participants said or did, during interview and

observation sessions accordingly (Johnson & Christensen, 2012). In this study, reporting the findings honestly was observed.

Authenticity

According to Pilot and Beck (2006), authenticity refers to the extent to which the researcher has offered a fair, faithful, honest, and balanced description of social life from the perspective of someone who lives it every day, demonstrating a variety of realities. To ensure authenticity in this study, the researcher reported the findings in a way that represent the true information given by interviewees. Also, the researcher put aside all preconceived opinions, beliefs and perceptions that may influence interviewees during the interview and possibly the data.

Transferability

To ensure transferability, the researcher will record adequate information from interviews. Also, the researcher will provide an extensive description of the interviewees which included their experiences (Stommel & Celia, 2004). In order to achieve transferability, the researcher gathered, identified, described, and reported the data adequately in a way that could facilitate easier understanding for readers to evaluate the applicability of the data and findings to other settings (Pilot & Beck, 2008).

Dependability

Pilot and Beck (2006), described dependability as one of the criteria for assessing trustworthiness in a study by having peer researchers assess it. To ensure dependability, the researcher had the obtained data examined by a peer researcher, who then compared the results to ensure that they were correct (Stommel & Celia,

2004). Furthermore, to ensure dependability, the researcher described the results of the findings in detailed. This would enable future researchers to repeat the work in different area to get the same result. Also the researcher employed overlying methods such as focus group interview. Employing focus group interview enable the researcher to collect the responses from the participants in unit so that the data could reflect the true characteristics of the participants, thereby increasing the dependability of the data.

Pilot-Testing

The instrument was pilot-tested at Ghana National College in Cape Coast. Ten students with VI were involved in the pilot-testing. The basis for the researcher to do pilot-testing before the main study was to test/check the trustworthiness of the instrument in order to unravel a concrete findings that can be applied to other setting/place. The term "pilot testing," refers to both tiny versions of a full-scale study and particular pre-testing of a research instrument such as a questionnaire or interview schedule (Van Teijlingen & Hundley, 2002). A pilot-test was conducted to refine the instrument and reveal practical difficulties that may impede the main study (Doody & Doody, 2015). As a result, pilot studies assist researchers in identifying grammatical errors, ambiguities, complex words among others (Dikko, 2016). It also helped to polish the researcher's interview skills and address possible issues that may arise in the cause of the main data collection.

Data Collection Procedures

Firstly, the researcher sought consent from the school authorities and the participants involved by sending an introduction letter to them which was given by

the Department of Education and Psychology, University of Cape Coast. The researcher ensured that the interview was conducted in a serene environment. Additionally, the researcher sought the consent of every interviewee to tape-record the interview session. At the end of every interview session, tape-recordings was played back to the interviewees to enable them to make corrections if any, give clarification by adding more information, or confirm the information he or she had given to the interviewer (Vanderpuye, 2013). The researcher ensured that participants' involvement in the study was voluntary (Denscombe, 2010).

Data Processing and Analysis

A qualitative data analysis with thematic analysis was used to analyse the data that were collected from the interviews. Several authors have recommended various steps or phases to analyse qualitative data (Braun & Clarke, 2006). The study adapted Braun and Clarke's (2006) thematic analysis. Thematic analysis is a method for detecting, analysing, and reporting themes in qualitative data (Braun & Clarke, 2006). Table 3 describes the six phases of thematic analysis.

Table 3: *Phases of Thematic Analysis*

No.	Phase	Description
1	Familiarising yourself with your data	Data transcription (if necessary), reading and re-reading the data, and jotting down initial thoughts
2	Generating initial codes	Data relevant to each code is organised, and exciting components of the data are coded in a systematic manner across the entire data collection.
3	Searching for themes	Assembling codes into viable themes and collecting all relevant data for each one.

Table 3 continued

No.	Phase	Description
4	Reviewing themes	Creating a thematic "map" of the analysis by checking in the topics in relation to the coded extracts (Level 1) and the complete data set (Level 2).
5	Defining and naming themes	Ongoing study to fine-tune the details of each topic as well as the overall story told by the analysis; providing clear definitions and labels for each theme.
6	Producing the report	This is the last chance for analysis. Selection of vivid, engrossing extract examples, final analysis of selected extracts, tying analysis to research topic and literature, and writing a scholarly report on the analysis

Source: Braun and Clarke (2006)

Familiarising with the Data: In order to familiarise with the gravity and scope of the data, the researcher frequently listened to the audio-recordings and constantly read the content of the data to search for meanings, and patterns (Pilot & Beck, 2006). Also, to ensure quality and accuracy of the transcribed data, the researcher transcribed the data on his own (Pilot & Beck, 2008). In transcribing the data that were gathered from the interviews, the researcher typed verbatim the audio-recordings which include pauses and reluctances that was made by interviewees. The reason for typing verbatim is to ensure that no part of data is lost or misconstrued but kept in its original form.

Generating Initial Codes: According to Stuckey (2015), coding is a process used in the analysis of qualitative research, which takes time and creativeness. Taylor and Gibbs as cited in Vanderpure (2013) defined coding as the process of analysing the data to produce themes, ideas and categories and marking similar passages of

text with a code label so that it can easily be recovered at a later stage for further comparison and analysis. The researcher applied codes to data extracts (Braun & Clarke, 2006). Also, the researcher identified the units of analysis that contain important information related to the research questions. Content of the information collected from interviews that are similar was draw to attention (Braun & Clarke, 2006).

Searching for Themes: In order to find themes, it begins with first classifying the various codes into probable themes, then collect all of the applicable coded data extracts inside those themes. The researcher looked for themes in the data gathered from the interviews during this phase. In addition, the researcher classified the various codes into possible themes and gathered all pertinent coded data extracts inside those topics (Braun & Clarke, 2006). The researcher double-checked the primary themes that had been found and constructed, as well as the extracts and codes that had been assigned to them.

Reviewing Themes: The themes that were derived from the data were fine-tuned by the researcher. When there is sufficient evidence that two or more topics are related, they are combined to form a single theme. During this phase, according to Braun and Clarke (2006), it may become clear that some motifs aren't really themes, while others may merge into one another. The researcher ensured that the material is thematically connected, and that there are clear and discernible differences between the themes (Braun & Clarke, 2006).

Defining and Naming Themes: Identifying the essence of what each theme is about, as well as the general themes, and choosing what component of the data each

theme captures are all part of the process of defining and refining themes (Braun & Clarke, 2006). The researcher read over the coded and collated data extracts for each theme, and organise them in a coherent and coherent way with associated narrative (Braun & Clarke, 2006.) This will be accomplished by giving short labels to the data-derived themes and subthemes (Vanderpuye, 2013).

Producing the Report: This phase, according to Braun and Clarke (2006), begins when the researcher has a collection of fully developed topics and includes the report's final analysis and writing. Furthermore, in Chapter 4 of this study, where the results and discussions will be provided, the researcher verified that all of the thoughts gathered from the data were reviewed and organised into themes. The report offered sufficient substantiation of the data's topics. Finally, in order to help readers comprehend the study's conclusions, the report provides verbatim excerpts taken from general comments offered by interviewees in response to the research questions.

Ethical Considerations

According to Rani and Sharma (2012), ethical issues pertain to anonymity, confidentiality, and informed consent. The researcher considered a number of ethical issues. Ethical approval was sought from the Institutional Review Board, University of Cape Coast, to conduct the study. Additionally, the researcher sent a letter of introduction given by the Department of Education and Psychology, University of Cape Coast, to the selected schools to inform them of his study. Secondly, participants were assured of confidentiality and anonymity. This implies that under no circumstance would information disclosed by participants be made

known to others. The researcher ensured that the participation of the participants was voluntary. Lastly, the researcher also asked the permission of the participants before recording the interview sessions.



CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of the study was to explore the academic and social experiences of students with visual impairments at Wenchi Methodist Senior High School. The results on the focus group interview responses on the research questions were presented using thematic analysis. The demographic information of the participant. A sample size of 20 students with VI (i.e., 11 students with blindness and nine students with low vision) were used for the study.

Participants' Demographic Information

This section presents the background information of the students with VI who responded to the interview. Demographic information of the students VI included gender, age-range, programme of study and the time of onset of the impairment.

Gender

Twelve males out of 20 participants representing 60% and eight females representing 40%.

Age Range

Two participants were below 20 years representing 10%. Eleven participants were 20-23 years representing 55%. Four participants were above 24-27 years representing 20% and three participants were above 27 years representing 15%.

Programme of Study

All the 20 participants offered General Art representing 100%.

Time of Onset of the Impairment

Eight out of 20 of the participants had the visual impairment before birth representing 40% and 12 participants had the visual impairment after birth representing 60%.

Results of the Study

Research Question One: What instructional strategies' do regular teachers use to teach students with VI at Wenchi Methodist Senior High School?

The data collected during the focus group interviews were used to answer this question. Four themes emerged from the data. These were tactile modelling, verbalisation, differentiated instruction, and co-teaching. The data was thematically analysed using these topics.

Tactile Modelling

In finding out the instructional strategies that regular teachers use to teach students with visual impairments at Wenchi Senior High School, the focus group interaction revealed that teachers used tactile modelling during their lessons. The respondents stated similar opinions on how their teachers guide them in performing activities such as holding their hands, shoulders, and physically touching them. The students also expressed that teachers give them concrete materials to perform activities in the classroom. Some of the students stated their views in these ways:

“Because we have difficulties in seeing, they usually stand at your side and hold your hands and do the demonstration that they are teaching. By so doing we are able to also understand what they are

showing our sighted friends” (Verbatim expression by a student in Group 3).

“They usually stand behind us and guide us to perform some activities in the classroom. Others too will hold your hand and help you to do the activity. And I like it because it helps us to also feel exactly what the teacher is doing, which the sighted colleagues are able to see and understand” (Verbatim expression by a student in Group 1).

Another student mentioned that:

“The teachers hold our shoulders and guide us to do some works. And it is a very good method for us because for us the visually impaired who cannot see, it is sometimes difficult for us to really get what the teaching is saying. So, when they hold our hands it makes it easy for us to also understand the activities they are talking about. For me it helps very much” (Verbatim expression by a student in Group 4).

From the analysis of the viewpoints of the students, it could be noted that teachers used guided practice as an instructional strategy to teach students with visual impairments. It is also observed that the guided practice method helps to improve upon the level of understanding of the lessons among the students.

Verbalisation

Another instructional strategy that was found to be used in teaching students with visual impairments is verbalisation. It was noted from the respondents’

comments that the teachers verbalise instructions to them. Some of the respondents remarked as follows:

“Since we are visually impaired, the teachers verbally describe everything they do to for us to hear because sometimes if they don’t describe some of the instructions to us, we will not know. For example, when the teacher writes something on the board, he will pronounce the word or read the sentence and ask us to repeat after him before he will move to the next activity” (Verbatim expression by a student in Group 1).

“Some of the teachers read whatever they write on the blackboard, and ask us questions. So, after writing the will read it aloud to our hearing and make sure that we have heard it before the clean the board and write other things. That is how the do it” (Verbatim expression by a student in Group 2).

One other student confirmed the above remarks by stating that:

“As for our teachers, they like to read whatever they write on the blackboard. Or sometimes they call the sighted to read it after that the whole class will repeat before the teacher will ask if anybody did not hear. If someone say he didn’t hear it then the teacher will repeat it once again” (Verbatim expression by a student in Group 4).

From the comments above, it can be deduced that teachers used verbalisation as an instructional strategy to teach students with visual impairments. It can also be noted that the student considered verbalisation as a good strategy,

since it helped them to keep track of the instructions as they were being presented by the teachers.

Differentiated Instruction

According to the data obtained from the respondents, teachers made use of differentiation as an instructional strategy during lesson delivery. It was noticed that teachers used two forms of differentiation techniques – differentiation by content, differentiation by process. It was found from the data that adaptations were made to the instructional content as well as the instructional process to teach students with visual impairments.

Differentiation by Content

One of the sub-themes that emerged under differentiated instruction is differentiation by content. The data revealed that instructions are altered or customised to meet the needs of students with visual impairments. The following comments from some of the responders backed up this point of view:

“When there is a diagram in a certain work that we are asked to do, the teacher exempt us from drawing but allow us to write the parts or write the names. When you take English language for example, there are diagrams in it. So, our teacher don’t let us draw but describe it verbally to us and sometime hold our hands and try to demonstrate it to us. This really help us because we are able to follow the lesson and remove the worries from us and make us understand the topic very well” (Verbatim expression by a student in Group 1)

“Most of the time, the teachers give us different things to do from what the sighted are doing, and that makes us able to take part in the lesson. For example, because we are not asked to take part in drawing but we are asked to state the various part of a particular diagram or arrange the parts if they are in order, it enables us to be comfortable and feel more involved in the lesson” (Verbatim expression by a student in Group 2)

Two other respondents asserted that:

“We for instance, we are not supposed to do certain things in class during lessons. Like for example, because we can't see so we can't draw diagrams and others. So, the teachers allow us to just state the parts of the diagram. Because of that we also feel ok and not afraid that we will not be able to do the exercise in the lesson” (Verbatim expression by a student in Group 3)

“When it comes to things like tables or diagrams, we are not part. The teachers allow us to maybe list the items in the table or sometimes arrange them in the correct order. So, we are very ok with how the teachers have been doing it for us because it also helps us to also understand it like how the sighted understand it” (Verbatim expression by a student in Group 4)

It can be deduced from the students' comments that the teachers made some adaptations to the instructional content when teaching students with visual impairments. It could be deduced from the data analysis that the differentiation of

the content made the lessons easily understandable to students with visual impairments.

Differentiation by Process

Another sub-theme that emerged under differentiated instruction is differentiation by process. It was revealed from the data analysis that the instructional processes were adapted to meet the needs of students with visual impairments. One respondent indicated their viewpoint as follows:

“Many of our teachers mostly teach us bit by bit and that makes it possible for better understanding. For example, if a government teacher is teaching, he will first teach the introductory aspect, pause and introduce the next topic on the next day. So, it helps us to get broader understanding of the topic” (Verbatim expression by a student in Group 3).

Other respondents commented as follows:

“Some of the teachers teach bit by bit and also mention our names and ask us questions during teaching” (Verbatim expression by a student in Group 2).

“The teachers don’t group us during teaching in the classroom. But they mention our names and ask us whether we understand the lesson or not” (Verbatim expression by a student in Group 4).

The comments above show that the instructional processes were differentiated when given instruction students with visual impairments. It can be

noted from the responses that the students feel involved in the lesson and were able to understand the topic well when the instructional processes were differentiated.

Co-Teaching

Co-teaching was another theme that emerged from the interaction with the respondents. Through the interactions with the student with VI, it was reported that though there were resource teachers at Wenchi Senior High School, however, there was no form of co-teaching during lessons in the classroom. When asked whether they got some form of assistance from other teachers while the main teacher was teaching, the participants revealed that they did not receive any assistance from other teachers, including resource teachers. Some of the participants commented as follows:

“No! We don’t get any assistance from any other teacher during teaching and learning apart from the main teacher who is teaching. For example, if we have let say CRS lesson, is only the CRS teacher that come to the classroom. No resource teacher has ever come to our classroom to help us during teaching and learning by other teacher” (Verbatim expression by a student in Group 1).

“During English comprehension lessons, some of the sighted students sit beside us and read it to us. But I haven’t seen any other teacher, even not our resource teacher coming in our classroom to help us.” (Verbatim expression by a student in Group 2).

Another student expressed that:

“We don’t get any assistance from any other teacher in the classroom with the main teacher at the same time” (Verbatim expression by a student in Group 3).

From the remarks quoted above, it could be deduced that there was no form of co-teaching during lesson delivery in the classroom by the regular class teachers. When asked about the effect of the lack of co-teaching on their understanding of the lessons, the respondents revealed that they were negatively affected by the lack of co-teaching. For instance, two of the respondents remarked that:

“This really affects our performance because we lose important points in the classroom during teaching and learning and we sometimes don’t get the full understanding of some of the lesson taught” (Verbatim expression by a student in Group 2).

“The absence of assistance from other teacher during teaching and learning affects us in all subjects’ negatively but mostly in English language” (Verbatim expression by a student in Group 3).

Another student pointed out that:

“Sometimes when the teacher gives us an exercise, we have to wait for the sighted students to finish before a colleague student attends to us. This makes it difficult for us to cope with the class and it doesn’t help us at all” (Verbatim expression by a student in Group 4).

It is clear from the comments of the students that they were not satisfied with the lack of co-teaching during lessons in the classroom. The respondents also

expressed their frustration with the negative effects they had to bear due to the lack of co-teaching.

Research Question Two: How do students with VI access information at Wenchi Methodist Senior High School?

The data from the focus group interviews were used to answer this research question. It was shown from the participants that access to information in the school has become a big challenge to the students. Five themes also came out from the data. These were friends, assistive technology, large print, magnifier and braille format. These themes were used to present data analysis.

Sighted Friends

In finding out how students with visual impairments access information at Wenchi Senior High School, the focus group interview data revealed that they got information through their sighted friends. The participants narrated how they got the information from their sighted friends. Some of the students narrated their views in these ways:

“Some of my sighted colleagues give me information. Sometimes I will be in the classroom and you see your classmates coming closer to you, by telling you that do you know what is trending in Ghana news and the entire world?” (Verbatim expression by a student in Group 2).

“Sometimes at morning assembly, the school prefects and other seniors on duties give us information such as the do’s and don’ts in the school. They also let us know some of the bad practices that

happens in the school” (Verbatim expression by a student in Group 4).

Another student confidently said that:

“Some of our sighted colleagues give us more insight about the rules and regulation in the school. Some even try to give you academic record of the school in terms of external examination in the dormitories and the classroom” (Verbatim expression by a student in Group 3).

From the analysis of the viewpoints of the students, it could be said that sighted students disseminated information to students with visual impairments in the school. It is also affirmed from the participants that information from their sighted peers helped them to be more up and doing in the school.

Assistive Technology

Assistive technology was one of the themes that emerged from the access of information by students with VI. Close-Circuit Television (CCTV), Job Access With Speech (JAWS) and internet were the sub-themes deduced from the assistive technology. It was discovered that, students with VI access to assistive technology in the school was impeded.

Close-Circuit Television (CCTV)

CCTV was one of the sub-themes that emerged from the assistive technology. Data from the participants attested that students with VI did not get access CCTV. This was expressed by the participants’ views as follows:

“I did not get CCTV in the school to read printed materials. If I get I would be happy because I would be able to learn and read on my own without any assistance from any other colleague which would make me independent in some of my private life. The absence of the CCTV has affected my spelling rate and English vocal” (Verbatim expression by a student in Group 3).

Another participant also said that:

“The first time I use CCTV to read in my former school is like I was in a new world. I was so happy and enjoy it during reading but since I came here I haven’t gotten it to do my independent studies” (Verbatim expression by a student in Group 4).

Two participants confirmed the above expression by saying that:

“CCTV will help us a lot because with the absence of the sighted counterpart, you can read on your own. The absence of the CCTV has affected my learning greatly” (Verbatim expression by a student in Group 2).

One participant also attested that:

“When I ask some of my predecessors they said the CCTV was in use in the school but during our time we are not getting it that makes me worried” (Verbatim expression by a student in Group 1).

It can be confirmed from the dissatisfied opinions from the participants that CCTV was inaccessible to students with VI in the school and that had retarded their access to information.

Job With Access Speech (JAWS)

JAWS was another sub-theme that was deduced from the assistive technology. The participants expressed their views on the usage of the JAWS in the following ways:

“The school has a computer lab but it is not in use. We don’t even get access to computers so not even to talk of the JAWS to read print independently” (Verbatim expression by a student in Group 1).

One participant said that:

“The few students who have personal laptop install the JAWS on it to access audio speech of text materials. This is really improving their academic performance in all subjects” (Verbatim expression by a student in Group 1).

Another student also asserted that:

“Inability to access JAWS on the computers in the school affect us greatly. Not all the time would a sighted colleague be available for to read print to us to write. Even when they read to us, we don’t normally get the meaning and the spelling of some words accurately. When we get the audio text on the computer, it would enable us to improve our learning. The absence of the audio text on the computers in the school really affects our learning and academic performances in the school” (Verbatim expressions by students in Group 2).

One participant confirmed the narrations by saying:

“Am a good listener and I learn best in audio medium? I can't afford to buy laptop and if the school has functioning computer lab, I could go there and read on my own. Now I am uncomfortable with my learning and performances in the various subjects” (Verbatim

expression by a student in Group 4).

Data from the participants showed that inability of the students to access audio text format on the computers in the school inhibits their academic performances and access to information.

Internet Access

Internet access was also a sub-theme that emerged from the assistive technology.

Data from the participants revealed the following responses:

“Capital no! We don't even have a functioning ICT lab. So we don't get access to the use of the internet. If we get access to the internet, it would enable us to do further research but inability to access the internet has affected us a lot academically” (Verbatim expression by student in Group 3).

A participant said:

“We have computer lab but when I asked my teachers why we are not using the computers, they told me that, the school doesn't have ICT expert to teach us. Why should a school have a computer lab and the computers would be serving as gods”. (Verbatim expression by a student in Group 2).

Another participant said:

“The school should understand our needs and medium of learning and hire ICT teacher immediately so that we can pass and pass our WASSCE very well as the sighted peers” (Verbatim expression by a student in Group 4).

Other participants also affirmed the above narrations by saying that:

“In fact the school system is not helping us at all because we don’t get the access to the computers to learn independently which is the key material resource to facilitate our learning and this has really affected our performances and information seeking badly”

(Verbatim expression by students in Group 1).

It was deduced from the data that, the participants showed some dissatisfactions about the school’s inability to hire ICT expert to manage the lab for them to access the internet usage as assistive technology had totally affected their access to information.

Large Print

Access to large print was another theme that came out from the access to information by students with VI in the school. The participants from the focus group interview expressed their views about the access to large print in the school in the following ways:

“We have not been getting large print of teacher’s lessons and even any relevant materials” (Verbatim expression by a student in Group

1).

Two students also said:

“The large print is very good to us because it makes learning easier to us and also enable us to learn on our own. But since we are not getting, it slows down our learning and also make us rely on our sighted peers for assistance” (Verbatim expression by students in Group 4).

Another student confirmed the above narrations by saying that:

“My vision is such a way that when you increase the font size of the printed materials, say to 16 and above, I am able to read the material very well. But I am not getting the text books or teachers hand-out in large print. The last time I asked one of the resource teachers he told me that there are no papers to do the printing since increasing the font size consume plenty sheets and since then I became worried” (Verbatim expression by a student in Group 2).

It can be noted from the data that, the participants showed dissatisfaction about unavailability of books in large print in the school. It was also affirmed from the data that students with low vision do not get access to large print materials to read on their own and this has affected their learning and access to information profoundly.

Magnifier

Magnifier is also another theme that arose from the access to information by students with low vision. Data from the participants revealed that magnifier was not accessible in the school. The participants expressed their worrying in the following ways:

“The school used to have the magnifiers. I remembered our predecessors were using the magnifiers but during our time no magnifiers have been given to us to read and this is a big worry to us” (Verbatim expression by a student in Group 4).

Another participant confirmed the above narration by saying that:

“When we go to the resource room we don’t get magnifiers to read and it is very bad” (Verbatim expression by a student in Group 1).

Braille

Braille being a theme emerged from the access to information and it is one of the chief medium of getting information for students with VI. Data from the participants in the focus group interviews showed that textbooks were not accessible in braille format in the school for the students to access and this has impeded their academic performances woefully. The students expressed their worrying viewpoints in the following ways:

“If the teachers teach and you didn’t understand and you want to research on your own, there is no book in braille for you to access it in the school. Sometimes I feel like regretting to come to school. Because there is no material resource for us to depend on to learn” (Verbatim expression by a student in Group 3).

Another participant said:

“I like braille because it helps me to get access to reading materials and also expose me to first-hand information and also enables me

to spell certain words correctly” (Verbatim expression by a student in Group 4).

Though the participants placed importance to the use of the braille however, almost all the participants in each focus group showed a great preference for braille and assistive technology. They said that:

“The reading of the braille is not easy especially for the late blindness. Using your fingers to read and the same time using your other hand to write is not easy. It slows our speed in completing work. If we get teachers to train us in the use of the ICT, we would prefer using the computers in doing task than the braille” (Verbatim expression by student in Group 1).

It can be observed from the data that books in braille materials were not accessible and this had negatively affected their learning.

Research Question Three: How do regular teachers assess students with VI academically at Wenchi Methodist Senior High School?

The data collected during focus group interviews were used to answer this research question. Four themes emerged from the data. These were oral reading, extra time allowance, modification and adapted format. These themes were used for the thematic analysis of the data.

Oral Reading

In finding out the regular teachers’ assessment of students with VI academically at Wenchi Senior High School, the focus group interviews revealed that teachers read questions to the students during class tests. The participants stated

similar views on how their teachers did the oral reading in the classroom. It was also found that teachers gave extra time to the students. Some of the students gave their views in these ways:

“During class test, the teacher in charge read it to us to answer and after that we read it to the sighted students to transcribe for the teachers to mark. We do it at the resource center, we don’t sometimes get our scripts. But when we answered it in the classroom for the sighted to transcribe, we get our script and get to know where we had it wrong” (Verbatim expression by students in Group 1).

“Usually, for the examination, it is conducted by our resource teachers at the resource centers but for the class test I enjoy responding to the questions orally by my teachers in the classroom because it makes me finish on time” (Verbatim expression by student in Group 3).

One other participant also said:

“Responding to the questions orally by the teachers during class test is helpful to us because we get our marks on time” (Verbatim expression by student in Group 4).

From the analysis of the viewpoints of the students, it could be noted that teachers read test orally to students with VI in the school. It is also observed that the oral reading was helpful to the students.

Extra Time Allowance

Extra time is one of the key features to consider as well as assessment of students with disabilities is concerned. Data from the participants showed that teachers gave extra time to students during class test and examination. It was also discovered from the data that extra time allowance given to students with visual impairments helped them a lot. The students expressed their excitement in the following ways:

“We enjoy extra time during class work/test and examination very greatly and this has helped us a lot to complete our work and pass very well” (Verbatim expression by student in Group 2).

A student noted that;

“If the time for the examination is 1 hour 30 minutes, the teachers add additional 45 minutes to ours. This helps us a lot” (Verbatim expression by student in Group 1).

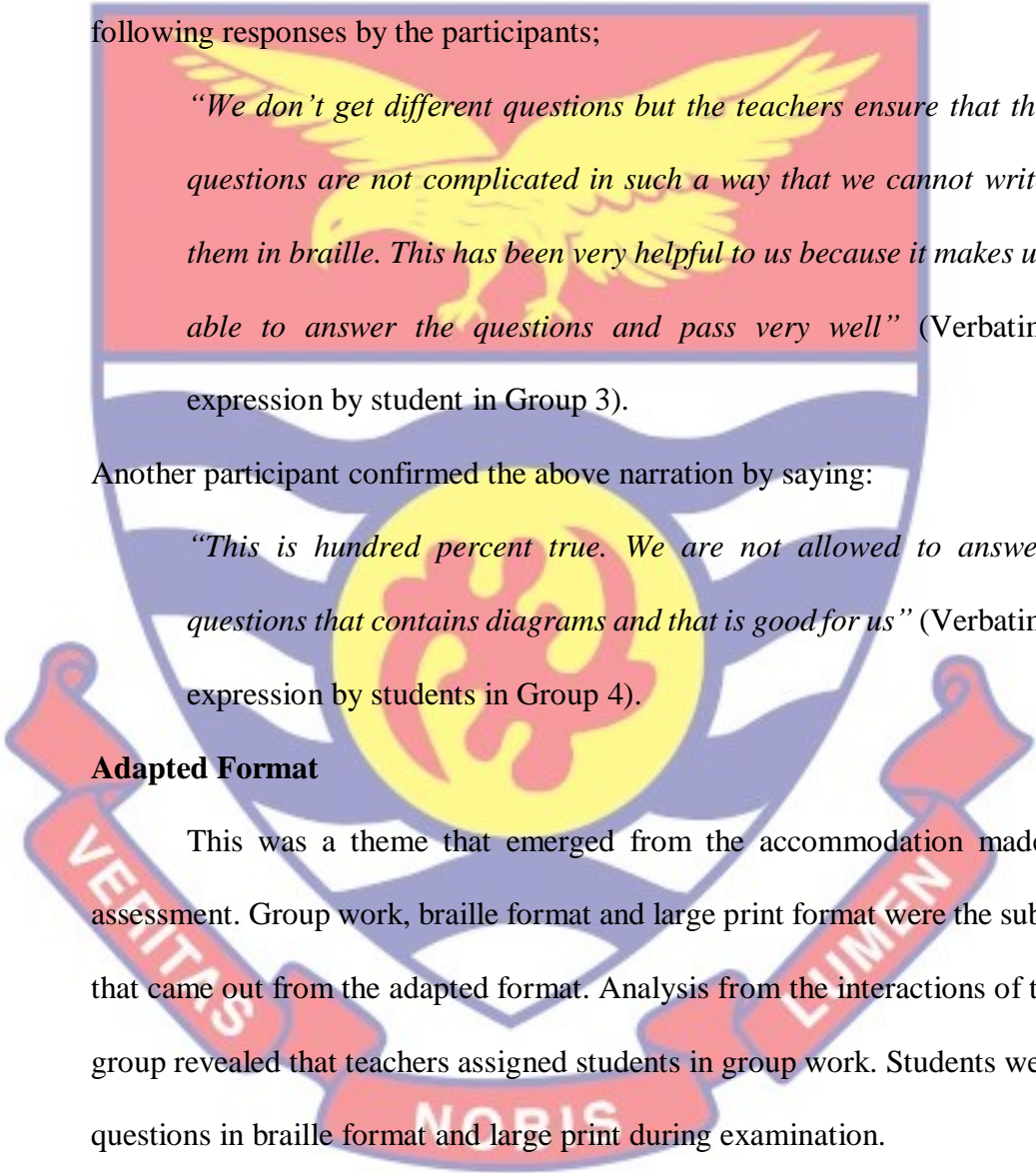
Another participant also said:

“Sometimes because of the extra time allowance, I will finish my work and having more time to go through the work to correct my mistake. So the extra time is helping me a lot” (Verbatim expression by student in Group 4).

With analysis from the data, it can be said that teachers gave extra time as adaptation for the students during class test and examination.

Modification

This is also a theme that emerged from the assessment practices by the teachers in the school. Data collected revealed that teachers modified examination questions to suit the students with VI in the school. The evidence was shown in the following responses by the participants;



“We don’t get different questions but the teachers ensure that the questions are not complicated in such a way that we cannot write them in braille. This has been very helpful to us because it makes us able to answer the questions and pass very well” (Verbatim expression by student in Group 3).

Another participant confirmed the above narration by saying:

“This is hundred percent true. We are not allowed to answer questions that contains diagrams and that is good for us” (Verbatim expression by students in Group 4).

Adapted Format

This was a theme that emerged from the accommodation made during assessment. Group work, braille format and large print format were the sub-themes that came out from the adapted format. Analysis from the interactions of the focus group revealed that teachers assigned students in group work. Students were given questions in braille format and large print during examination.

Group Work/Presentation

A sub-theme from the adapted format that was practiced by the teachers as assessment strategies in the school was group work/presentation. It was evidence

from the participants that though the teachers gave them group work to present. However, it was noticed that the scores from the group work were not factored into the examination. It was observed from the participants in the following ways:

“Though our teachers assess us in group work but they don’t use the scores in case any of us couldn’t write the exam to promote the student. Unless you write the exams before you will be promoted”

(Verbatim expression by student in each Group 1).

Another participant also said:

“The group work helps me a lot because I get different sources of information from other peers. Each and every one will go and search for information before we meet to put them together as one main work” (Verbatim expression by student in Group 4).

It can be deduced from the data that teachers assessed the students in group work/presentation. It was also seen that the students attached importance to the group work

Braille Format

This was a sub-theme that arose from the adapted format. Analysis from the data confirmed that teachers embossed (tactile format) examination questions for the students. It was evidence in the participants in the following ways:

“We get examination questions in braille format. We enjoy it in answering questions during examination because it ensures independent work” (Verbatim expression by student in Group 1).

A participant narrated that:

“Some of us are late blindness and find it difficult in reading the braille speedily. Because braille is voluminous and takes time in identifying the dot during reading, we mostly don’t finish answering the questions during examination. We would have preferred the question in electronic form to make us finish our work on time”

(Verbatim expression by student in Group 3).

It was found from the data that teachers made examination questions accessible in braille format and was very useful to the students.

Large Print

Another sub-theme that was deduced from the adapted format was large print. Data from the participants revealed that, students did not frequently present questions in large print for the students with low vision. This was confirmed from the participants as follows:

“I am late blindness and very slow in reading the braille so I become happy when my questions are presented in a large print at a font size 18 and above. Sometimes you will be in the exam room expecting questions in large print but you will be given braille form. This doesn’t allow me to finish my exams” (Verbatim expression by student in Group 1).

Another participant narrated that:

“I am low vision and have challenges with my finger dexterity to read the braille in a speedy manner. So I prefer using my residual vision to read the large print. If get the questions in large print I am

able to finish the exam on time” (Verbatim expression by student in Group 4).

It can be deduced from the students’ comments that they are satisfied with the mode of academic assessment in the school.

Research Question Four: What is the nature of social relationship that exists between students with VI and their sighted peers at Wenchi Methodist Senior High School?

The nature of social relationship that exists between the students were critical issues that were addressed by the participants. Three main themes were highlighted. These were friendship form, cooperative learning and co-curriculum involvement. Analysis from the data revealed that the friendship form between the sighted students and students with visual impairments was fair. It was also found that students with VI and their sighted peers did cooperative learning. More so, data also showed that students with VI were involved in co-curriculum activities especially sports.

Friendship Form

The theme that emerged from the nature of social relationship was friendship form. Data from the participants showed that friendship form between the students was seen as fair. The participants expressed their opinions in the following ways:

“Our social relationship with the sighted peers are two ways affairs.

Some are willing to come to us and some also see us differently and

are not willing to come to us” (Verbatim expression by student in Group 2).

“For some when you are going and there is danger ahead they will assist you but some will not offer help to you” (Verbatim expression by student in Group 4).

“It is not easy because even when a sighted student tries to provide assistance to us, the other sighted colleague will stigmatise them by saying you are now blind and that scares them from coming to us. The sighted students think that when they make tight friends with us they will get the blindness” (Verbatim expression by student in Group 1).

Two participants said:

“Even if a sighted student wants to come close to us it may be that the person needs something from us. when you are in the same classroom and dormitory with them they treat you good and come closer to us whenever they see us but those we are not in the same classroom and dormitory with, don’t want to even come closer to us at all” (Verbatim expression by students in Group 3).

“If I should rate the friendship with the sighted students, I will say it is somehow fifty percent” (Verbatim expression by student in Group 2).

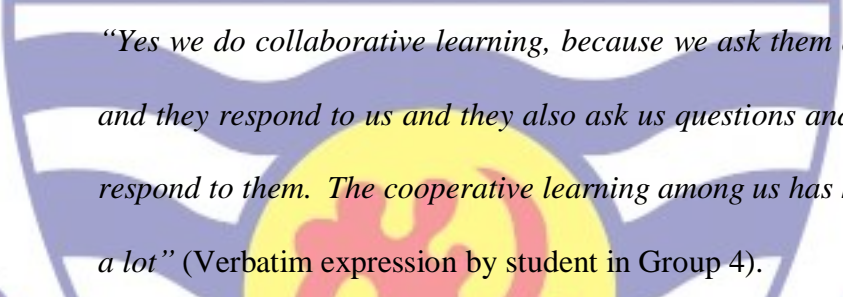
Analysis from the participants indicated that, the friendship form between the students with VI and the sighted peers was some fair.

Cooperative Learning

Data from the participants showed that there was collaboration between the sighted peers and the students with VI. This was noticed from the participants in the following ways:



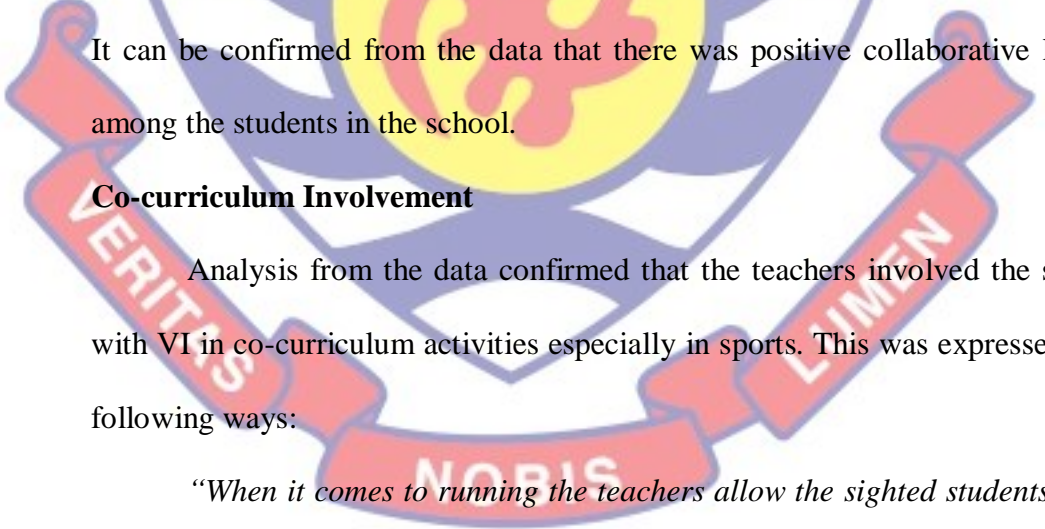
“Yes yes! Very excellent and positive. We form group studies with the sighted peers and share the topics among ourselves and come and present it to the group and if there is any correction to be made, we all come on board to discuss it” (Verbatim expression by student in Group 4).



“Yes we do collaborative learning, because we ask them questions and they respond to us and they also ask us questions and we also respond to them. The cooperative learning among us has helped us a lot” (Verbatim expression by student in Group 4).

It can be confirmed from the data that there was positive collaborative learning among the students in the school.

Co-curriculum Involvement



Analysis from the data confirmed that the teachers involved the students with VI in co-curriculum activities especially in sports. This was expressed in the following ways:

“When it comes to running the teachers allow the sighted students to hold our hands and run together. When it comes to football, the teachers sometimes give us bell ball for us to play. The bell ball

gives sound, so we follow the direction of the sound to know where the ball is” (Verbatim expression by student in Group 1).

Two others said:

“When we go for church service, they select some of us who are good in singing to lead the praises and worship team. We become happy when they involve us in those activities” (Verbatim expression by students in Group 2).

“Even when it comes to electing prefects they make us aware to pick positions that we want and can deliver well” (Verbatim expression by students in Group 3).

Based on the narratives of the students with VI, it can be concluded that the type of relationship that exist among them and their sighted peer was a two-way affair. Some sighted peers socialise with them while others do not.

Discussion

This section presents the discussion of the findings based on the research questions that guided the study.

Research Question One: What instructional strategies’ regular teachers use to teach students with VI at Wenchi Methodist Senior High School?

In exploring the instructional strategies regular education teachers use to teach students with VI, it was revealed in the study that teachers used tactile modelling. With this strategy, the students reported that when the teachers were demonstrating a skill in the classroom that required students to look at them and imitate the skill, the teachers guided students with VI by holding their hands and/or

shoulders, and provided them with concrete materials to performing the skill being taught. This confirms the findings of Avornyo (2017), who reported that teachers used strategies such as verbal description, and demonstrations in teaching students with VI. According to the students, it made them feel more confident to complete instructional tasks they had been assigned to. This finding is in line with existing literature which posits that, since students with VI have limitation in imitating visual information, teachers should incorporate the use of touch and physical model (Salleh & Zainal, 2018). From my perspective, since students with VI did not have the ability to see what teachers demonstrate in the classroom, teachers can provide them with physical assistance and give concrete and actionable feedback in demonstrating skills. With this, the students can have a feel of the skill being taught hence, boosting their self-confidence and motivation.

Additionally, the results of the study revealed that teachers used verbalisation as another instructional strategy in teaching students with VI. According to the students with VI, the teachers verbalised instruction for them. This implies that instructions that were written on the board, and/or in the book are given to the students with VI verbally. This finding is in agreement with existing literature which suggest that teachers should give verbal notice on assignments and offer to read written information for students with VI in the classroom (Seham & Yeo, 2015). It is essential for teachers to supplement visual materials and/or information presented in the classroom with verbal explanation. This will help to mitigate any feeling of marginalisation on the part of students with VI in the IE environment which has been reported in previous studies as challenges students with VI face in

being educated among their ‘non-disabled’ counterparts (Ali, & Hameed, 2015; Subrayen, 2011).

It was further revealed in the study that teachers used differentiated instruction to teach students with VI in the classroom. The students with VI said that teachers used two forms of differentiation techniques. These were; differentiation by content and differentiation by process. With differentiation by content, it was found in the study that teachers mainly presented lessons through both auditory and visual means to enable students with VI and the sighted to equally benefit from the instructional section. With differentiation by process, the students with VI said that the teachers gave those manipulative materials and hands-on support when teaching in the classroom. Differentiated instruction as found in the study validates the suggestion of Dijkstra et al. (2016) that students differ greatly in terms of performance, cultural background, language competence, learning styles, motivation, and interest so teachers need to effectively differentiate their instruction in order to address these differences.

However, it was discovered in the study that although there were resource teachers in the school, the regular education teachers did not use co-teaching approach in teaching the students with VI. The students with VI reported that they did not enjoy learning because the regular education teachers did not engage the services and involvement of the resource teachers in the school. The students also expressed their frustration for not experiencing the impact of co-teaching. This problem needs critical attention because regular education teachers may not have the expertise in teaching students with VI by themselves alone (Kesiktas &

Akcamete, 2011). Therefore, the involvement of resource teachers who are experts in reading and transcribing of the Braille and managing students with VI cannot be overemphasised. Although it was found in the study that teachers used tactile modelling, differentiated instruction, verbalisation, and peer tutoring to teach students with VI, co-teaching has been argued by several authorities as a significant teaching approach for educating students with VI in an IE environment (Preston-Smith, 2015; King-Sears, 2014; Abbye-Taylor, 2014; Friend & Cook, 2013). It is therefore, important for regular education teachers to engage resource teachers in the school to support them in teaching the students with VI. With their support, co-teaching approaches can be adopted to promote effective learning among students with VI hence, improving their academic performance.

Research Question Two: How do students with VI access information at Wenchi Methodist Senior High School?

The results of the study showed that students with VI access information through their sighted friends in the school. It was found that sighted students disseminate information and updates such as date and time of events, details of instructional activities such as group work, assignment, and project work to students with VI in the school. Friends can be resourceful in acquiring new skills, knowledge, and general information as suggested by Kunt (2013). Consistent with this, Estell et al. (2009) opined that inclusive schools are social spaces that give students with VI the opportunity to develop harmonious relationships with their sighted peers and interact with friends. However, in my view, although sighted students can be helpful to students with VI in the school environment, it may lead

to over reliance hence, reducing students with VI's self-confidence and may also lead to deprivation confidentiality. Simply, students with VI may over depend on their sighted friends to access information. In support of my view, existing current literature stresses that, in order for students with VI to live an independent life, it is essential they develop adequate skills needed to build self-confidence and not be over reliant on friends for information (Jameel & Shamim, 2019).

Additionally, concerning the availability and access to assistive technologies, the results of the study revealed that students with VI did not have access to CCTV, JAWS, internet, magnifiers, and braille format in the school. The students with VI reported that they were unhappy and less motivated during instructional periods due to the absence of these assistive technologies. From my experience, students who did not enjoy lessons and feel passive in instructional sessions turn to forget concepts or skills taught by the teacher. This, therefore, implies that students with VI in an inclusive setting should be provided with the necessary technologies needed to promote effective learning. Also, it was found that students with VI do not have access to audio text format on computers due to the unavailability of ICT professionals who have expertise in teaching students with VI. The lack of assistive technology found in the study is consistent with the findings of a current study conducted in Tanzania (Kisanga & Kisanga, 2021) and a previous study in the United States of America (Zhou et al., 2011) reported that there were inadequate availability of assistive devices for students with VI which negatively affected their active participation in class and their academic performance in general.

Existing literature indicates the relevance of JAWS to students with VI. For instance, according to Smith et al. (2012), JAWS are programs that allow students with VI to access and use information by converting texts displayed on the screen of a computer into speech or into a refreshable braille displays. Additionally, the educational benefits of the use of CCTV, magnifier, and large print in educating students with VI cannot be relegated. These technologies make it possible for students with VI particularly, those with low vision to visualise print from sources such as books, papers, and letters. In my opinion, assistive technologies are vital tools for promoting the inclusion of students with VI in learning activities because it gives them the opportunity to access and share information, and contact their friends as the sighted students do. It is, therefore, imperative that students with VI are provided with assistive technologies to have equal learning opportunities as the sighted students.

Research Question Three: How do regular teachers assess students with VI academically at Wenchi Methodist Senior High School?

Concerning how teachers academically assess students with VI, the results of the study revealed oral reading, extra time allowance, modification and adapted format are the ways through which students with VI were assessed. The students with VI reported that teachers read class tests and examination questions to them and gave them extra time compared to the sighted students. Also, students with VI were given examination questions in braille format and large print. The study further showed that teachers group students with VI among the sighted students for presentations. These findings are inconsistent with the findings of a previous study

conducted by Craddock and Mathias (2009) who reported that students with disabilities were restricted by the modes of assessment. The finding reported by Craddosck and Mathias (2009) is inconsistent with the findings of the current study probably because they conducted the study in a higher institution (that is, a university) where students with disabilities may have been perceived as mature students and therefore, could adapt to fit into the school setting.

Additionally, oral reading, extra time allowance, modification and adapted format found in the study is consistent with the findings of a previous study conducted by Smith and Amato (2012) who reported that additional time, braille format, and large print were the accommodation strategies used to assess students with VI. From my experience as a special educator for the VI, students with VI need extra time to perform academic activities such as class test and examination. This is in line with that of Mullins and Preyde (2013) who suggest that students with disabilities such as VI need extra time for the completion of examinations. It was found in the study that instructions and instructional materials were modified to meet the needs of students with VI in the school. This finding is consistent with Avornyo (2017), who reported that instructions and instructional materials were adapted to suit students with VI in the school environment.

Furthermore, students with VI often selected courses based on the mode of assessment that suit their needs. This is perhaps the reason why Redpath et al. (2012) reported in their study that students with disabilities choose courses by taking into consideration means in which they will be assessed. Through adaptable mode of assessment, teachers determine students' learning and the assistance they

need (Gozyuesil & Tanriseven, 2017) to differentiate teaching and engage them in modified assessment experiences (Chiappe et al., 2016). Therefore, it was revealed that students with VI had positive experience regarding how they were assessed among the sighted students.

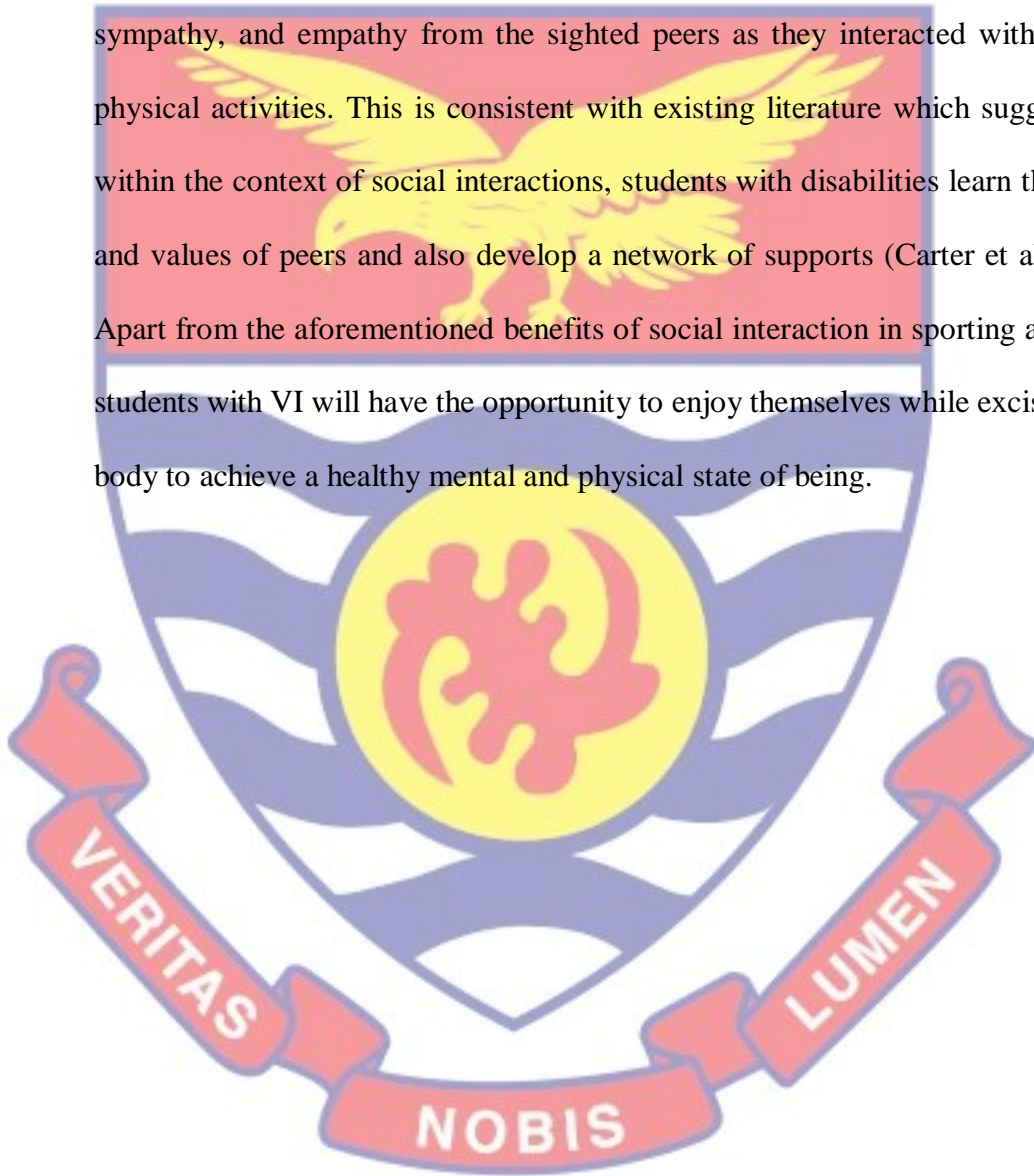
Research Question Four: What is the nature of social relationship that exists between students with VI and their sighted peers at Wenchi Methodist Senior High School?

In exploring the nature of social relationship that exists, it was found that students with VI interacted with their sighted peers through friendship, cooperative learning, and co-curriculum involvement. With friendship, the result of the study showed that there was a fair and mutual relationship between students with VI and their sighted peers in the school. However, some students with VI expressed that while some sighted friends were willing to socialise with them, others were not because they perceived their condition (that is, VI) as transferable. In my view, this can be problematic because inclusive schools are expected to promote social interaction between students with disabilities and those without disabilities. This can be detrimental to the access and participation in positive life experiences among students with VI. In support of this, a student with VI said, *‘Some are willing to come to us and some also see us differently and are not willing to come to us’*. Another student had this to say, *‘When you are going and there is danger ahead they will assist you but some will not offer help to you’*. It is vital, students with VI were accepted by their ‘non-disabled’ counterparts as emphasised by the Individuals with Disabilities Education Act [IDEA] (2004).

Additionally, with cooperative learning, it was revealed in the study that students with VI collaborated with their sighted peers in performing academic activities such as projects, assignments, class exercises, among others. According to the students with VI, they worked in groups with their sighted peers. This, therefore, suggests that students with VI in the school were given a positive learning opportunity that enabled them to interact with their sighted peers to shape the lives and allowed them to achieve academically in an inclusive environment (Marshall-Reed, 2010). This assertion is also in connection with the views of Braxton et al. (2004) that the degree to which students stay in a school depend on their experience in academics and social integration. In my view, when students develop positive relationships with their sighted peers, they may experience higher self-esteem and motivation in school, which are prerequisites to academic success. A student with VI said, *'We form group studies with the sighted peers and share the topics among ourselves and come and present it to the group and if there is any correction to be made, we all come on board to discuss it'*.

Regarding the involvement in co-curriculum activities, it was found in the study that the teachers involved students with VI in activities in the school. In connection to this, a students with VI said, *'When it comes to running, the teachers allow the sighted students to hold our hands and run together. When it comes to football, the teachers sometimes give us bell ball for us to play. The bell ball gives sound, so we follow the direction of the sound to know where the ball is'*. This finding corroborates with that of Avornyo (2017), who revealed in her study that, students with VI participated in physical education activities such as, gymnastics,

ball games, athletics and physical fitness activities. From my perspective, social interactions give sighted students the opportunity to care about and try to understand and to respond to the feelings, needs and concerns of their peers with VI. Also, students with VI learned acceptable behaviours such as tolerance, sympathy, and empathy from the sighted peers as they interacted with them in physical activities. This is consistent with existing literature which suggests that within the context of social interactions, students with disabilities learn the norms and values of peers and also develop a network of supports (Carter et al., 2005). Apart from the aforementioned benefits of social interaction in sporting activities, students with VI will have the opportunity to enjoy themselves while exercising their body to achieve a healthy mental and physical state of being.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter discusses the summary, conclusions and recommendations of the study. Key findings and suggestions for further research were also presented in this chapter.

Summary

The purpose of the study was to explore the academic and social experiences of students with VI at Wenchi Methodist Senior High Schools. Four research questions guided the study. The study adopted a qualitative approach specifically, a phenomenological research design. Participants for the study were purposively selected. The sample size for the study was 20 participants which were made up of 11 students with blindness and 9 students with low vision. The data collection instrument used for the study was a focus group interview. The data obtained from the focus group interview was analysed using thematic analysis (Brown & Clarke, 2006).

Key Findings

The study revealed the following key findings:

1. With the exception of co-teaching, the teachers used tactile modelling, verbalisation, and differentiated instruction as their instructional strategies in teaching students with VI.

2. Students with VI accessed information through their sighted friends. Students with VI had no access to assistive technologies such as CCTV, JAWS, internet, magnifiers, and braille format.
3. Students with VI were assessed academically through oral reading, extra time allowance, modification and adapted format.
4. The nature of social relationship that existed between students with VI and their sighted peers were through friendship, cooperative learning, and co-curriculum involvement.

Conclusions

IE provides the opportunity for students with disabilities and those without disabilities to interact, build relationship and friendship, appreciate the differences of people, and achieve academically. Students with VI at Wenchi Methodist Senior High has positive academic experiences through the use of extra time allowance, adapted format, oral reading, and modification. However, some challenges were highlighted in the study regarding academic and social experiences of students with VI in an inclusive setting. It is, therefore, suggested that adequate measures should be put in place to ensure that both the sighted students and students with VI understand each other well through planned activities.

Recommendations

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

1. Regular teachers in Wenchi Methodist Senior High School should make use of the services of resource teachers. With this, they can collaborate with the

resource teachers to adapt any of the co-teaching approaches to manage instructions in their classrooms.

2. The Ministry of Education through Special Education Division should provide students with VI with assistive technologies they can access information with such as CCTV, JAWS, internet, magnifiers, and braille format.
3. Headteachers and teachers within the Wenchi Methodist Senior High School should find innovative ways such as devotion, media, invitation of persons with disabilities to the school to sensitise the sighted students on issues about disabilities and the need to accept their peers with VI.
4. The Ghana Education Service should provide regular teachers in Wenchi Methodist Senior High School with regular in-service training courses on instructional strategies for students with VI.

Suggestion for Further Research

The scope of the study could be expanded to include students with VI in other inclusive schools in other geographical areas. This would increase the degree to which results can be generalised to a larger proportion of students with VI. Variables such as onset and category of VI of students should be studied in relation to experiences in school. This would give additional information whether there is any relationship between students' onset, category of VI and experience.

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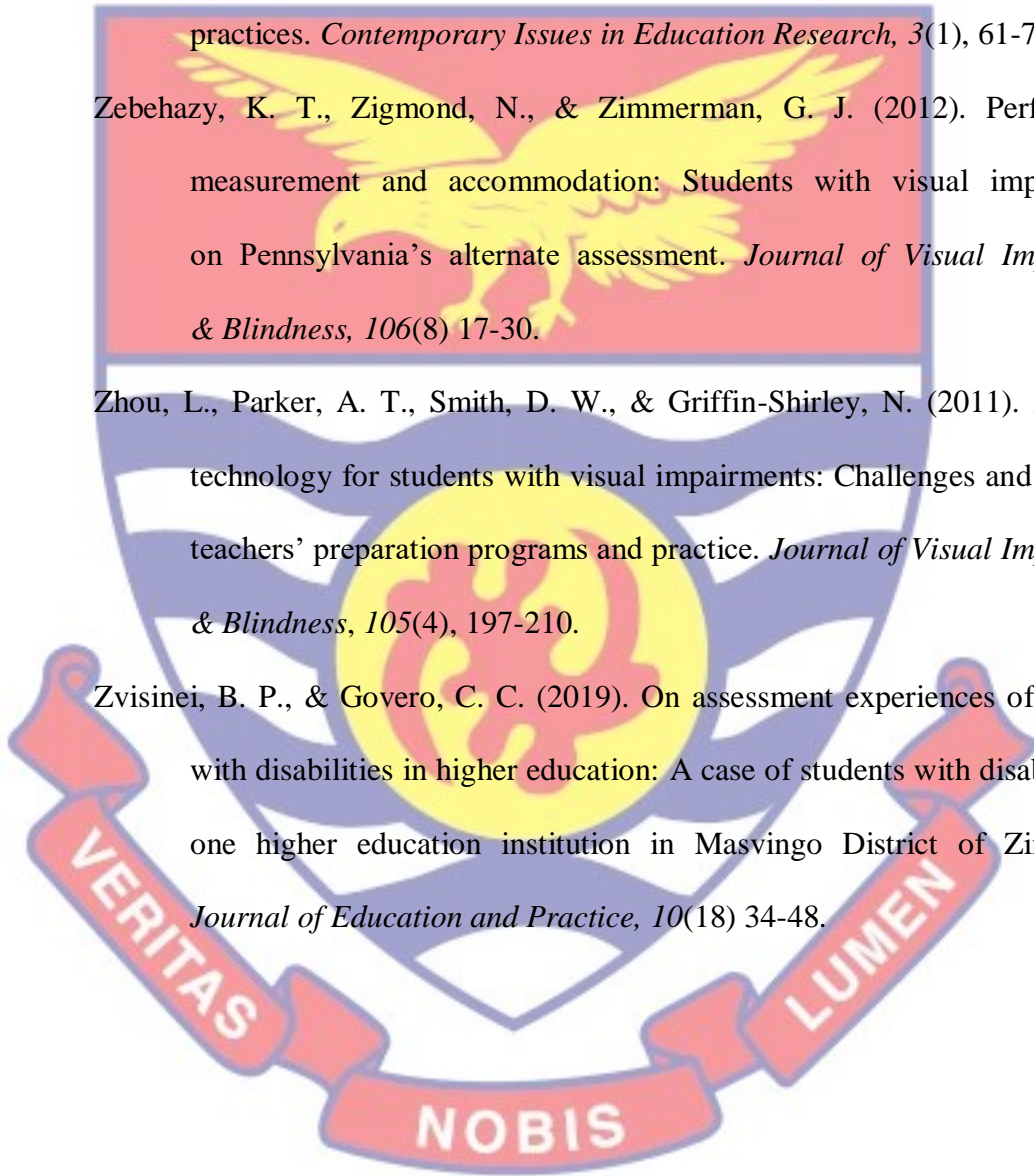
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APPENDICES

APPENDIX A: ETHICAL CLEARANCE LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: (CES-ERB) ucc-edu/vs/h/1-26  Date: 15th April 2021
Your Ref:

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB
Prof. J. A. Omosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680


The bearer, Desmond Armah, Reg. No. FF/SDP/19/0004 is an M.Phil. / Ph.D. student in the Department of Education and Psychology in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to undertake a research study on the topic:

Academic and social experiences of students with visual impairment at Wendlo Senior High School, Bono East Region

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/~~her~~ proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/~~her~~ study. The ERB would be grateful if you would give him/~~her~~ the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,




Prof. Linda Dzama Forde
(Secretary, CES-ERB)

APPENDIX B: INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697
Email: dep@ucc.edu.gh



UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:
Your Ref:

2nd March, 2021

THE HEADMASTER
WENCHI METHODIST SENIOR HIGH SCHOOL
P. O. BOX 88
WENCHI

Dear Sir/Madam,

**THESIS WORK
LETTER OF INTRODUCTION
MR. DESMOND ARMOH**

We introduce to you Mr. Armoh, a student from the University of Cape Coast, Department of Education and Psychology. He is pursuing a Master of Philosophy degree in Special Education and he is currently at the thesis stage.


Mr. Armoh is researching on the topic: **“ACADEMIC AND SOCIAL EXPERIENCE OF STUDENTS WITH VISUAL IMPAIRMENTS AT WENCHI METHODIST SENIOR HIGH SCHOOL, BONO REGION, GHANA.”**

He has opted to collect or gather data at your institution/establishment for his Thesis work. We would be most grateful if you could provide him the opportunity and assistance for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

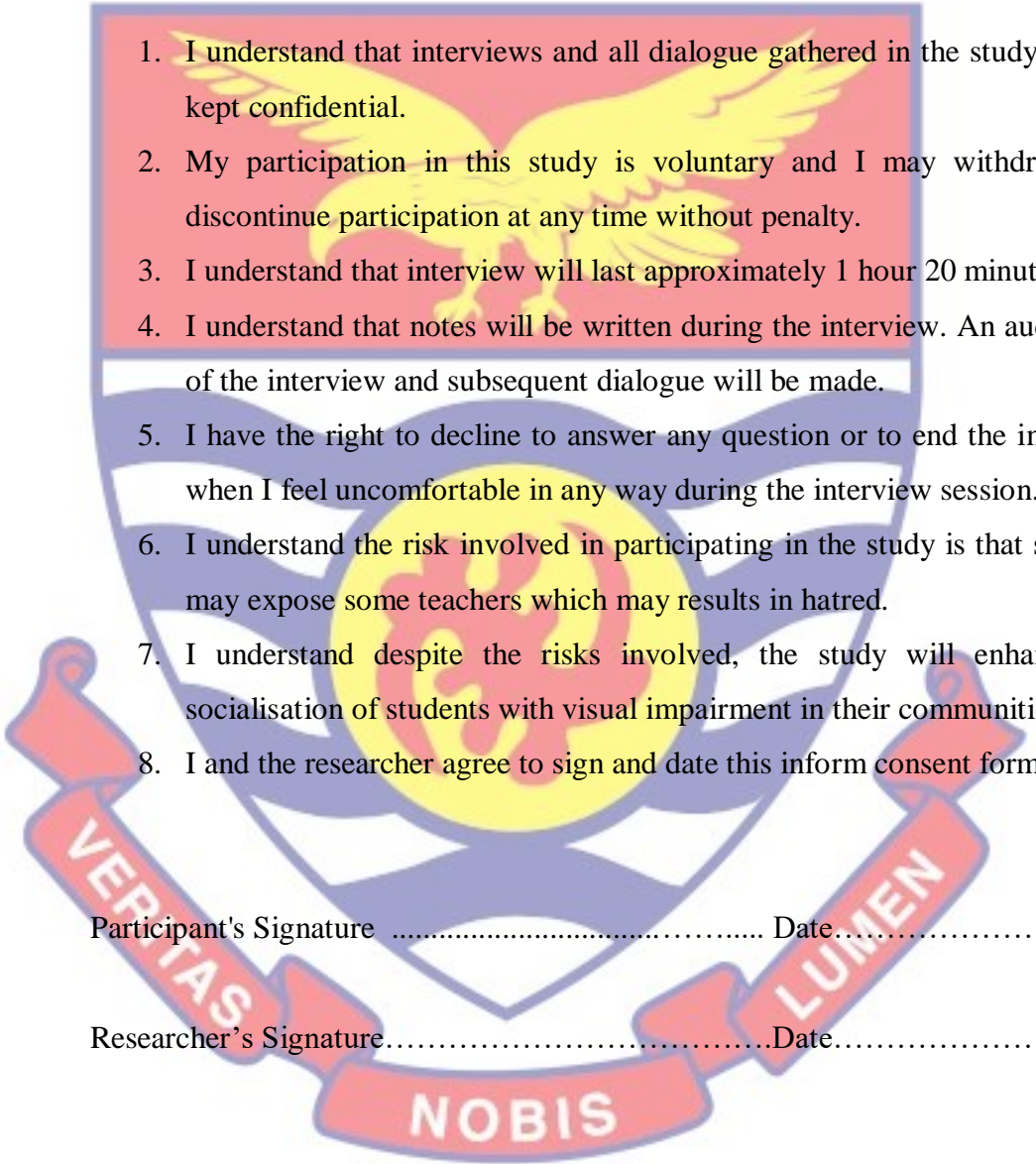
Thank you.

Yours faithfully,


Gloria Sagoe
Chief Administrative Assistant
For: **HEAD**

APPENDIX C: INFORMED CONSENT FORM

I volunteer to participate in a research work conducted by Desmond Armoh from the University of Cape Coast (UCC). I understand that the research is to collect information about the academic and social experiences of students with visual impairment at Wenchi Senior High School.

- 
1. I understand that interviews and all dialogue gathered in the study will be kept confidential.
 2. My participation in this study is voluntary and I may withdraw and discontinue participation at any time without penalty.
 3. I understand that interview will last approximately 1 hour 20 minutes.
 4. I understand that notes will be written during the interview. An audio tape of the interview and subsequent dialogue will be made.
 5. I have the right to decline to answer any question or to end the interview when I feel uncomfortable in any way during the interview session.
 6. I understand the risk involved in participating in the study is that students may expose some teachers which may results in hatred.
 7. I understand despite the risks involved, the study will enhance the socialisation of students with visual impairment in their communities.
 8. I and the researcher agree to sign and date this inform consent form.

Participant's Signature Date.....

Researcher's Signature.....Date.....

APPENDIX D: FOCUS GROUP INTERVIEW

RESEARCH TOPIC

ACADEMIC AND SOCIAL EXPERIENCES OF STUDENTS WITH VI AT WENCHI SENIOR HIGH SCHOOL

Interviewer:

Desmond Armoh

OPENING

- a. Establish Rapport: introduce myself and give my personal details to participants. Telling the participants that the intention for this interview is purely academic purpose only.
- b. Purpose: to assess students' academic and social experiences.
- c. Time Line: interview for each focus group will take about 45 minutes.

BODY

SECTION A

Demographic data of the participants

1. Can you tell me your age range?
2. Can you tell me your gender?
3. At what time did you get the visual impairments?
4. Can you tell me form?
5. Can you tell me the programme you are pursuing?

SECTION B

Instructional strategies teachers use in teaching students with VI

1. Describe how your teachers teach instruction with the assistance of other teachers?

Prompts:

- a. Do you get assistance from other teachers while the main teacher is teaching?
- b. How do the other teachers assist you during instructional hour?
- c. What kind of assistance do the other teachers give you during teaching?

2. How do your teachers adjust content for you in various teaching subjects?
3. Describe how your teachers involve you during teaching?
4. Describe how your teachers break instructional tasks for you?

SECTION C

Accessing information by students with VI.

1. Describe how you get information in the school?

Prompts:

- a. Do you get CCTV to read?
- b. Do you get access to JAWS on your computers in the school to read?
- c. How do you feel about using assistive technology?
- d. Do you get access to large print and magnifiers to read?
- e. Do you get text books in braille formats?
- f. How do you feel about using the braille?

SECTION D

Assessment of students with by teachers.

1. Describe how your teachers assess you during class work, assignment and examination?

Prompts:

- a. Do your teachers give you extra time to finish your exams and class work?
- b. Do your teachers use alternative ways such as presentation, group work, portfolio and individual assignment to assess you?
- c. Do your teachers make assessment materials accessible in large print, Braille format and electronic form to you?

SECTION E

Social relationship between students with VI and sighted peers.

- A. Describe the pattern of social interaction between you and your sighted peers in the school?

Prompts:

- a. How easy or difficult is it for you to make friends with the sighted?
- b. How would you describe your relationship with the sighted?

- c. What about your involvement in the classroom?
- d. Do you do group learning/group work with the sighted peers?
- e. How about your participation in extra-curricular activities such as sports and games in the school?

CLOSURE

- a. Summarise: please do you have anything else to say about our interaction? Including clarification, questions, corrections and comments, etc.
- b. Maintain Rapport: I appreciate the time your cooperation. Is there anything else you want me to know? You can contact me anytime if there is anything you want me to address
- c. Departure: am much grateful for your cooperation. See you! Bye bye.

