

UNIVERSITY OF EDUCATION, WINNEBA

**EXPERIENCES OF STUDENTS WITH PHYSICAL DISABILITIES IN
MAINSTREAM SENIOR HIGH SCHOOLS IN ASIKUMA-ODOBEN-
BRAKWA DISTRICT, GHANA**

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MASTER OF PHILOSOPHY

2022

UNIVERSITY OF EDUCATION, WINNEBA

**EXPERIENCES OF STUDENTS WITH PHYSICAL DISABILITIES IN THE
ASIKUMA-ODOBEN-BRAKWA DISTRICT, GHANA**



**A thesis in the Department of Special Education,
Faculty of Educational Studies, submitted to the School
Of Graduate Studies in partial fulfillment
Of the requirements for the award of the degree of
Master of Philosophy
(Special Education)
In the University of Education, Winneba**

SEPTEMBER, 2022

DECLARATION

Student's Declaration

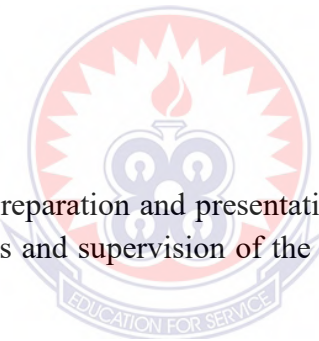
I, Gloria Ama Akyere Nyarko, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature.....

Date.....

Supervisor's Declaration

I, hereby certify that the preparation and presentation of this thesis was supervised in accordance with guidelines and supervision of the thesis laid down by the University of Education, Winneba.



Supervisor's Name: Prof. Yaw Nyadu Offei

Signature.....

Date.....

DEDICATION

To my family, friends, and the learners with special educational needs in Asikuma-Odoben-Brakwa District.



ACKNOWLEDGEMENTS

First and foremost, I thank the Almighty God for how far he has brought me and His strength throughout my academic programme. To all lecturers of the Department of Special Education, University of Education, Winneba. May God reward you for your love and good work. My profound gratitude to my supervisors, Dr. Yaw Nyadu Offei and Dr. Daniel Dogbe for giving me the opportunity to learn, their guidance, sincerity and motivation have deeply inspired me. It was a great privilege and honor to study under them.

I also deem it fit to acknowledge my lovely friend, Wise for his assistance and support, I really do appreciate you friend. To you; Professor Samuel Hayford, and Dr. Awuni, I cannot thank you enough for all the useful support, I say may God richly bless you. I wish to express my heartfelt love and appreciation to my dear friend, father and Lawyer Samuel E. Abekah, I could not have come this far without his care and words of encouragement. May God continue to bless him. To all the pupils and staff in Asikuma-Odoben-Brakwa Senior High Schools, I say a big thank you.

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ABSTRACT

The purpose of the study was to explore the experiences of students with physical disabilities in mainstream senior high schools in Asikuma-Odoben-Brakwa District, Ghana. The study was purely qualitative and used phenomenology as its research design. A census method was used to select all the eleven students with physical disabilities for the study due to the small nature of population. Interview guide in the form of probe was developed to guide the interview for the data collection. Data were analyzed using a content analysis technique and themes generated from the transcription of the data collected from the participants. The results of the study revealed that students with physical disabilities did not experience difficulties with teachers teaching methods and the curriculum. Even though there were available in the schools teaching and learning materials and also library facilities, the students with physical disabilities experienced difficulty using them because they were not user-friendly. Also, students with physical disabilities did not experience problems with teachers and students attitudes towards them as there is friendship and interaction among them. However, the study showed that students with physical disabilities' challenging experiences were associated with the use of schools buildings, the library and toilet facilities. In view of these, it was recommended that more attention should be directed towards making physical structures and facilities more accessible and user-friendly and accommodation be made to other rigid systems so that students with physical disabilities can experience full participation in the schools.



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Physical disabilities are difficulties associated with sitting, standing, getting into position, moving, communicating, using and manipulating classroom tools and materials and self-care (American Speech-Language-Hearing Association, n.d.). Students with physical disabilities may need significant help with all day-to-day tasks or may work independently. The experiences of students with physical disabilities may vary, depending on the nature of their physical disability, whether it is short term or long term, their family background and circumstances and individual factors such as age and personality. Also, students with physical disabilities may find it difficult to safely move around classrooms and the wider school environment. They may again find it difficult to manipulate and use some learning tools and materials, specially writing tools, access or participate in some curriculum activities, for instance, physical education and technology. Some may as well find it difficult to carry out personal self-care tasks such as making use of the toilet, eating and changing clothes as well as move and get into position to learn.

The Asikuma-Odoben-Brakwa District has three Senior High Schools (SHS). The three schools are; Breman Asikuma SHS, Odoben SHS and Brakwa Senior High Technical School. Available data show by the District Chief Executive, Mr. Isaac Odoom, during a press briefing indicated that as at 2016, the total population of the three Senior High Schools in the district stood at 1,670. However, following the introduction of the free SHS policy, enrolment increased to 2,160 in 2017 and witnessed a further increase in 2018, with a population of 3,922 (Ghanaweb News,

2019). Furthermore, in an unprecedented manner, the population of the three schools reached an all-time record high of 5,452 students in the 2019 academic year. The Breman Asikuma SHS was established in 1964 and is located at Breman Asikuma in the Asikuma Odoben Brakwa District. Its current population as of 2020 is around 2,172 with schools facilities including Library, Dining Hall, Girls and Boys Dormitories, Bass Clinic, ICT Labs, Science Resource Centre, Classrooms and Administration Block. In the other hand, the Odoben SHS was also established in January 1991 as one of the schools intended by the government to bring Secondary School education to the door steps of those in the communities and located about one kilometer away from town on the Odoben-Brakwa road. The school currently runs three programmes. These are Agriculture Science, Business and Home Economics. The population of the school stands at 684 of whom 393 are males and 291 are female. The school has hostel facilities for boys and girls and is currently constructing as Assembly hall cum canteen to be used in providing meals for interested students. The third school, Brakwa Senior High Technical was established in 2011 as a private institution but was later absorbed by government during the 2015/2016 academic year. The school runs courses like General Science, General Arts, Business, Visual Arts, Home Economics, General Core Subjects and a Technical Course.

The 2010 population and housing census indicates that out of 112, 706 population of Asikuma-Odoben-Brakwa District in the Central Region of Ghana, persons with disabilities constitute 3.8 percent of the population in the district of which 3.5 percent are males and 4.0 percent are female (Ghana Statistical Service [GSS], 2010). The data further shows that the population three years and older with disability in the district is 4, 181, and out of this population, 40.2 percent has never attended school,

50.2 percent attended basic school (Nursery, Kindergarten, Primary, Junior High School [JHS] and Middle School. More so, among the various types of disabilities, 50.7 percent of persons with speech impairments had never attended school, followed by those with physical (49.1%), hearing (48.5%) and intellectual (48.1%) disabilities while 34.4 percent of those with emotional disability had never attended school (GSS, 2010).

Access to education for people with disabilities has arisen to the international policy priority agenda as the global inclusive education movement continues to gain momentum (Braun & Naami, 2019). Global educational policy directives such as the United Nations (UN) Sustainable Development Goals (SDGs; UN, 2015) and the Conventions on the Rights of Persons with Disabilities (CRPD; UN, 2006) promote equal access to all levels of education for people with disabilities. Of all world regions, sub-Saharan Africa has witnessed the fastest growth in high education enrolment from 1970-2013 (Darvas, Gao, Shen & Bawany, 2017).

However, disability is a structure of inequality that has received little research attention in relation to high school education in sub-Saharan Africa. Similarly, Ghana's high school education sector is recognized as one of the region's success stories due to its relatively high enrolment and high government expenditure (UNESCO, 2018). Existing literature examining the intersecting relationships between disability, education, social discrimination, and economic disadvantage implies that people with disabilities are severely underrepresented in higher education in Ghana, but further data collection in this area is needed (Braun & Naami, 2019).

Students with physical disabilities in Senior High School (SHS) in Asikuma-Odobenbrakwa District in Ghana have been found to also experience challenges to their education. Challenges such as rigid curricula and lack of appropriate teaching materials, assessment and evaluation systems are often focused on academic performance rather than individual progress and therefore can also be restrictive for students with physical disabilities and their needs (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009). There are also social barriers such as negative attitudes of teachers, school administrators, and other students affect the inclusion of students with disabilities in mainstream schools. Again, physical access to school buildings is a major challenge. Those with physical disabilities face problems of stairs, narrow doorways, inappropriate seating, or inaccessible toilet facilities.

Academic experiences of students with disabilities is key to success in the classroom in relation to appropriate adaptations, reasonable accommodations and modifications made to the instruction and other classroom activities, (National Center on Disability and Access to Education, n.d). Flexible approaches in the school are needed to address the different abilities and needs of every learner. Where curricula and teaching methods are rigid and there is lack of appropriate teaching materials, students with disabilities can be at an increased risk of exclusion. Again, assessment and evaluation systems are often focused on academic performance rather than individual progress and therefore can also be restrictive for students who have special educational needs. Reasonable accommodation means the provision of appropriate modification and adjustments where needed, to ensure persons with disabilities enjoy or exercise of all human rights and fundamental freedoms (Tudzi et al., 2017). Kothari

(2010) also notes further that reasonable accommodation is manifested in various ways, including seeing to medical expenses, adjustment in teaching times (American Association of University Professors, 2012) and changes in the physical environment (Harvard Law Review Association, 2016).

There are barriers such as negative attitudes of teachers, school administrators, and other students affect the inclusion of students with disabilities in mainstream schools. The attitudes of teachers, schools administrators, and other students affect the inclusion of people with disabilities in mainstream schools, and furthermore, some school teachers, including head teachers, believe they are not obliged to students with disabilities.

Again, the physical environment is another challenge of experiences to the education of students with physical disabilities in mainstream school. Physical access is a widely documented barrier for students with disabilities to higher educational and learning institutions, yet it continues to be a critical issue. Accessibility may involve taking measures to guarantee access on an equal basis to the physical environment to persons with disabilities or without disabilities. While accessibility standards seek to address the general needs of persons with disabilities, reasonable accommodation addresses the specific and relevant needs of the individuals with disability to enable him or her to enjoy his or her right in a particular setting or context. Students with physical disabilities face difficulties in traveling to school. When students reach school, there are problems of stairs, narrow doorways, inappropriate seating, or inaccessible toilet facilities. (Centers for Disease Control and Prevention, 2021)

An emerging body of research shows that many Ghanaians with disabilities are poor, lack education, and are unemployed (Naami, 2015). Given these circumstances, young people with disabilities in Ghana view further education as important to leading a better life, gaining employment, and self-sufficiency (Singa, Salifu, Iddrisu, Casey-Hayford, & Ludebye, 2015). Ghanaians with physical disabilities in particular whose range of employment opportunities are limited due to the physical requirements of some jobs perceive inadequate education as a leading cause of their unemployment and identify further education as their most important support need.

The right to education has been recognized internationally as an overarching right. It is a human right in itself and is also indispensable for the exercise of other human rights (UNESCO, 2015). Persons with disabilities (PwDs) have limited access to education in Africa because structural and social barriers (Oyaro, 2015; Tudzi, Bugri & Danso, 2017). The researchers further note that the challenges faced by persons with disabilities with respect to the built environment are also manifest at the high education level in African countries like Ghana (Tudzi et al., 2017), Uganda (Emong & Eron, 2016) and Tanzania (Matonya, 2016).

Since Ghana is a party to this international protocol, it is expedient that the country is seen to be upholding the provision of the convention (Tudzi et al., 2017). Although disability and education are human rights issues (World Health Organization [WHO], 2011), the socio-cultural context in which disability is seen in Ghana has also been a debilitating factor. Disability has been seen to be associated with evil and the supernatural by many people; hence addressing it in the context of human rights has not been that simple. Braun and Naami (2019). The Ghana Inclusive Education Policy Document outlines specific policy objectives and strategies focused on restructuring

many aspects of the current educational system, including the environment. The architectural principals of universal design are explicitly mentioned as the guiding theoretical framework to be used to create ‘disability friendly’ accessible environment across all levels of education (Ministry of Education [MoE], 2016).

As Ghana is at the early stage of implementing this national Inclusive Education Policy, it is critical to study the school experiences of students with disabilities to inform sustainable reform. The limited amount of research conducted on inclusive education in Ghana is focused more on lower as opposed to higher levels of education, and research findings suggests that while there has been some improvement regarding educational access for children with disabilities, the aspirations of Ghana’s Inclusive Education Policy are far from being realized (Braun & Naami 2019). In 2012, the (MoE), estimated that approximately 3 percent of children aged 4-14 in Ghana received any form of basic education (MoE, 2012). While these statistics exhibit an upward trend in increased access to education, the vast majority of children with disabilities remains out of school and will not have the opportunity to advance through the educational system towards higher education (Braun & Naami, 2019).

1.2 Statement of the Problem

(Okongo et al., 2015).The inaccessible environment limits access to facilities, resources and other important services for students with physical disabilities. Also, adequacy, up-to-date and specialized teaching and learning materials are not available to meet the special needs of the students with physical disabilities. For example, some participants disclosed that library facilities on campus are inaccessible. The

implication is that these participants have to rely solely on the notes taking during class lessons and this negatively affects their academic performance.

Also, it was revealed that some of the students with physical disabilities were not happy about their relationships with peers and teachers. According to these students, peers and teachers were always calling them by their disabilities instead of their real names and these bring negative effects on them including stigmatization, peer rejection, and lower self-esteem. This situation as noted from the students and further confirmed sources from the other schools' environment makes the students with physical disabilities reluctant to form friendships and to have interactions with peers and teachers, thus missing out on needed support services (Kwon, 2005).

Again, from the views and experiences of some of the students with physical disabilities, the physical environment was not favorable to them because the location of important facilities such as the libraries, classrooms, ICT laboratories, canteen facilities, and washrooms (Okongo et al., 2015), are not easily accessible to them. All these facilities as noted are located either on the first and second floors of the story building and the only means to get access to them is by the use of stairs. The situation as perceived might pose a big challenge to the students with physical disabilities in the three senior high schools in the district as a result the need to research on the experiences of students with physical disabilities in accessing education in these schools.

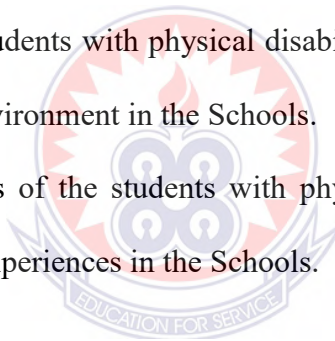
1.3 Purpose of the Study

The purpose of the study was to explore the experiences of students with physical disabilities in mainstream Senior High Schools in Asikuma-Odoben-Brakwa District, Ghana.

1.4 Objectives of the Study

The objectives of this exploration were to:

1. Find out the academic experiences of students with physical disabilities in Asikuma-Odoben-Brakwa mainstream Senior High Schools.
2. Find out from students with physical disabilities their social experiences in the Schools.
3. Ascertain from students with physical disabilities their experiences in relation to the physical environment in the Schools.
4. Explore the views of the students with physical disabilities on measures to improving their experiences in the Schools.



1.5 Research Questions

The following research questions guided the study.

1. What academic experiences do students with physical disabilities have in the Asikuma-Odoben-Brakwa mainstream Senior High Schools?
2. What social experiences do students with physical disabilities have in the Schools?
3. What experiences do students with physical disabilities have in relation to the physical environment in the Schools?
4. What views do students with physical disabilities have on the measures for improving their experiences in the Schools?

1.6 Significance of the Study

The results of the study would enable the students with physical disabilities who are in mainstream senior schools in the district to highlight their academic experiences. The data would help the schools' authorities to take measures to improve on the academic experiences for the students with physical disabilities. Again, the results of the study would enable the students with physical disabilities to air their views in relation to their social experiences in the mainstream senior high schools in the catchment area. This would help informed the decision of the school authorities to take action to removed barriers to participation in the schools. The results of the study would also help reveal how the students with physical disabilities cope with physical environment of the school. This would help the school management to know whether the physical environment is accessible or not. Finally, the results of the study would enable the students to share their personal views on measures to improving their experiences. This would eventually draw the attention of the school management to the experiences of the students, whether positive or negative.

1.7 Delimitation of the Study

The scope of the study covered only the Asikuma-Odoben-Brakwa District in the Central Region of Ghana with the focus on the lived experiences of students with physical disabilities in mainstream senior high school. The scope of the study also covered all the three mainstream senior high schools in the District. The justification for selecting all the three schools was to achieve a fair idea whether students with physical disabilities have similar or varied experiences within the schools in the district.

1.8 Limitation of the Study

The study encountered some limitations such as reluctance of participants to give their time for accepting to be interviewed. The time factor also limited the study process because the schools under study were located in different towns, and also some participants were outside campus as day students, and as a result arrangement has to be made through phone calls and pre-visits to be able to get them for the interviews. Also, due to the small size, it cannot be assumed that the findings would be representative of all school settings in the country, or representative of the experiences of all the students with physical disabilities. Again, the needs and the abilities of the students under study in this research vary greatly, meaning their experiences in mainstream also varied. It would not be the intention of the researcher however, to make generalizations but rather to highlight the reality of mainstream education as experienced by a chosen group of participants. Despite the varying levels of ability of the students, the researcher is confident that this study adequately represents both the positive and challenging aspects of mainstream education as experienced by students with physical disabilities.

1.9 Operational Definition of Terms

Experiences: in this study, experiences refer to what students with physical disabilities had to say about their involvement in the schools settings in relation to academic, social and the physical environment.

Physical disabilities: refers to a limitation on the students' physical functioning, mobility, dexterity or stamina.

Mainstreaming: this refers to students with physical disabilities in the same general classroom with their peers without disabilities.

1.10 Organization of the Study

This study comprises of five chapters. Chapter one gives the background of the study. Introduces the problem statement, elaborates on the study objectives, research questions, significance of the study, delimitations and limitations of the study, definition of significant terms and organization of the study.

Chapter two presents the literature review of relevant studies on the concept of inclusive education, the theoretical framework of the study, academic experiences, social experiences, experiences related to physical environment and measures to improving experiences.

Chapter three deals with the research methodology and procedures used for data collection and analysis. This include the research design, target population, sample and sampling technique, research instruments, procedure for data collection, and data analysis. Chapter four presents the analysis and discussion of the results of the study, while chapter five covers the summary of the research findings, conclusions, recommendations and suggestions for further study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the literature reviewed for the study in three sections. The review first presents the Theoretical Frameworks, the Conceptual Review of inclusion and is followed by the Empirical Review on the key strands raised in the research questions such as the following:

1. Theoretical Framework
2. Conceptual Review
3. Empirical Review
4. Academic experiences of students with physical disabilities
5. Social experiences of students with physical disabilities
6. Physical environment experiences of students with physical disabilities
7. Improving experiences of students with physical disabilities.

2.1 Theoretical Framework

The study adopted the Social Model of Disability that was necessary for guiding the discussion on experiences of students with physical disabilities in mainstream senior high schools in the Assikuma-Odoben-Brakwa District in the Central Region of Ghana.

2.1.1 The social model of disability

A model represents a particular type of theory, namely structural, which seeks to explain phenomena by reference to an abstract system and mechanism (Llewellyn & Hogan, 2000). Oliver (1996) argues that 'models' enable understanding but do not explain phenomena, by which he means that models do little to explain disabilities.

However, an analysis of influencing models gives insights into the historical background of institutionalization of children with disabilities.

Unlike the medical model of disability which focuses on the person with disability as the main problem, the social model of disability thus places the onus of responsibility to the restrictions imposed by the construction of the environment and attitudes of institutions and organizations (Johnstone, 1998). Inspired by the activism of the British disability movement in the 1960s and 1970s, the social model of disability developed in reaction to the limitations of the medical model of disability (D' Alessio, 2011). According to the social model of disability, it is society 'which disables people with impairments and therefore any meaningful solution must be directed at societal change rather than individual adjustment and rehabilitation' (Barnes, Mercer & Shakespeare, 2010, p. 163). Oliver (1981), a disabled activist and lecturer, who also coined the phrase 'social model of disability', stresses the need to focus on the social aspects of disability, especially how 'the physical and social environment imposes limitations upon certain categories of people' (p. 28). The social model thus provides a basis for criticizing present essentialist theory and a basis for proposing fundamental change (Adams, Swain & Clark, 2000). Disability according to the social model:

'is all the things that impose restrictions on disabled people; ranging from individual prejudices to institutional discrimination, from inaccessible public buildings to unusable transport systems, from segregated education to excluding work arrangements, and so on' (Oliver, 1996, p.33).

The significance of the social model lies in its radical challenge to the medical or individual model of disability (Camilleri, 1999)

2.2 The Concept of Inclusive Education

The Australian Institute for Teaching and School Leadership Limited (aitsle) notes that inclusion as a concept in education is most often associated with minority groups and people who experience disability, but in fact, inclusion is about everyone (aitsl, 2020). Inclusion is a human right (Declaration on the Rights of Disabled Persons 1975) a legal entitlement to all (Commonwealth Discrimination Act 1992) and a core pillar of education Policy (Disability Standards for Education 2005) (aitsl, 2020).

Inclusive education means that all students are welcomed by their school in age-appropriate settings and are supported to learn, contribute in all aspects of school. Inclusive education is about how schools are developed and designed, including classrooms, programs and activities so that all students can learn together (DET, 2015). Inclusive education also means that all students whether disabled or not, are together in mainstream classrooms for the majority of their day (Schuelka, 2018). Furthermore, inclusion demonstrates positive effects on student achievement and social well-being for all children and is far more efficient and effective than special schools and special classrooms.

Inclusive education is a continued process of educational transformation, and a clear set of equity indicators such as from UNESCO (2017). Can support inclusive education implementation (Schuelka, 2018). Key factors in inclusive education implementation include school and classroom level such as school reviews and plans training and supporting all teachers in inclusive practices, not just specialize ones; supporting school leadership to enact an inclusive vision for their schools. National level implementation requires enabling policy to clearly articulate and support inclusive education; having strong systems to data collection and management;

providing flexibility in curriculum; and coordinating with other aspects of society in which inclusive education factors, such as employment (Schuelka, 2018).

Inclusive of students with disabilities benefits entire student bodies by teaching them about diversity in the real world and helping them develop empathy (Baker, 2013). They again argued that inclusion helps friends to learn to accept one another limitations and flaws and to complement one another weakness by contributing their strengths. Those in favor asserted further that friends also quickly learn that superficial differences are far less important than shared values, trust (Baker, 2013). Brown(2014), also contends that disabled children turn to develop positive self-concepts by becoming member of the total group, as opposed to the ostracism and segregation that characterized the programs of the past (Schattman & Benay, 1992). Inclusion has advantages for the teachers who teach both disabled and nondisabled students in inclusive schools, teachers have chances to meet other teachers who are special education teachers and learn from them (Bisadiq 2020). Therefore, teachers interact with the disabled students, nondisabled students and special education teachers and they gain new information (Brown, 2014).

The disadvantages of mainstreaming of students with disabilities are viewed in three areas which are; the disabled students themselves, teachers, and cost. The argument is that mainstreaming can influence the disabled students by preventing them from not receiving the knowledge that they need (Bisadiq, 2020). In other words, students with disabilities cannot keep themselves with the same level of regular students. Although being in a regular classroom should provide the opportunity for peer acceptance of students with disabilities by their peers without disabilities, research findings are still contradictory on this issue (Brown, 2014).

Another debate by people not in support of inclusion has to do with teachers. The argument is made clear that students with disabilities need a person who has special qualifications to teach these students and that not everyone has these capabilities of teaching the disabled students and therefore some teachers might lose their job (Bisadiq, 2020). Teachers lose their jobs because of lack of proficiency of interacting with disabled students. Finally, the area of argument has to do with cost of mainstreaming because some school buildings would need to be changed to accommodate the disabled student's needs; some teachers need to get special training and other changes may be needed, installation of mainstreaming system in the school is expensive (Gordon, 2013).

2.3 Empirical Findings

2.3.1 World Wide Empirical Studies

A 2012 study by Hehir and colleagues examined the performance of more than 68,000 primary and secondary school students with disabilities in the United States of Massachusetts. Using the state test data, the authors identified many factors that influence the academic achievement of students. Family income, school quality, and proficiency with English were all related to a child's academic performance. After statistically controlling for the factors, the authors found that on average, students with disabilities who spent a larger part of their school day with their non-disabled peers performed significantly better on measures of language and mathematics than students with similar disabilities who spent a smaller proportion of their school day with their non-disabled peers (Hehir, et al., 2012 as cited in Abt Associates, 2016, p. 23). A study of 757 students with disabilities in the Midwestern United States also found that the language skills of the students benefit substantially from having the

opportunity to attend preschool with non-disabled students (Justice, Logan, Lin & Kaderavek, 2014).

Two large longitudinal studies of students with disabilities provide evidence that participating in inclusive education can yield positive impacts on students' academic outcomes. The Special Education Elementary Longitudinal Study (SEELS) followed 512 students with disabilities from elementary to middle school and from middle school to high school from 2000 to 2006 (Wagner, Kutash, Duchnowski & Epstein, 2005, cited in Abt Associates, 2016, p. 14). Study data indicates that students with disabilities who took more classes in general education settings had better reading comprehension and a higher level of performance on tests of mathematical skills when compared to segregated students (Wagner et al., 2005).

Inclusive education can also support a student's academic attainment – the number of years of education an individual has completed. A study from Harvard lecturer Laura Schifter used advanced statistical methods to examine the graduation patterns of students with disabilities in the United States of Massachusetts and found that students with disabilities in fully inclusive placements were almost five times more likely to graduate on time than students in segregated settings (Schifter, 2015). A study of more than 400 students with an intellectual disability or multiple disabilities found that included students were nearly twice as likely as their non-included peers to enroll in some form of post-secondary education (Baer, Daviso, Flexer, Queen & Meindl, 2011). Another study using data from National Longitudinal Transition Study (NLTS) indicated that following high school, included students were 11 percentage points more likely to be employed and earned approximately \$ 2,100 more per year (in 1990 United States Dollars) when compared to otherwise similar students

who spent 50 percent or less of their school time in general education (Wagner, Blackorby, Cameto & Newman, 1993, cited in Abt Associates, 2016, p. 15).

The evidence noting the academic benefits of inclusive education is not limited to the United States alone but in other countries as well. Researchers in Norway followed nearly 500 secondary school students with disabilities over six years and found that, included students were more than 75 percent more likely to earn a vocational or academic credential than students who were educated in special classes (Abt Associates 2007; Myklebust, 2016). Another study conducted in the Netherlands compared the development of more than 200 matched pairs of 7 and 8 year old students with learning and behavioral difficulties or mild intellectual disability who were included in general and special education schools (Abt Associates, 2016). The researchers then followed these pairs of students four years and discovered that the included students made substantially greater academic progress than did their counterparts in special education programs (Peetsman, Vergeer, Roeleveld & Karsten, 2001).

Researchers have documented similar evidence that inclusion yields academic benefits for students with intellectual disabilities in general and students with Down syndrome specifically. Among students with intellectual disabilities, such as students with Down syndrome, inclusive education has been repeatedly shown to support academic development, particularly in the areas of language and literacy (de Graaf & van Hove, 2015). There is also evidence that participating in inclusive settings can yield social and emotional benefits for students with disabilities. Such social and emotional benefits can include forming and maintaining positive peer relationships, which has important implications for a child's learning and psychological

development (Abt Associates, 2016). Research suggests that students with disabilities often struggle to develop peer relationships (Bossaert, Boer, de Frostad, Pijl & Petry, 2015).

Again, another study examined more than 1,100 Austrian primary and secondary school students and found that, when compared to non-disabled students, students with disabilities had fewer friendship or social interactions, lower levels of perceived peer acceptance, and diminished self-perception of social participation (Schwab, 2015). Inclusion may help to support social skill development among students with disabilities (Schwab, 2015). A 2002 review of the scholarly literature indicates that students with developmental in inclusive classrooms demonstrated higher levels of engaged behavior than did students with developmental disabilities in special education classrooms (Katz & Mirenda, 2002). In a study of students with learning disabilities in Canada, researchers found that students who were educated primarily in a mainstream settings (in an inclusive classroom either with or without additional in-class support) were more accepted by their peers, had better social relationships, were less lonely, and showed fewer behavioral problems than similar students who were educated in resource room or self-contained special education classroom settings (Wiener & Tardif, 2004).

Similarly, the World Health Organization and World Bank (2011) indicates that the acquisition of communication, social and behavioral skills are superior in inclusive classes or schools and several researchers have also documented positive outcomes (Bennett, 2011; Hunt & Gallagher, 2012). Racionero and Padros (2010), indicates that most mainstream teachers identify placement in mainstream classrooms as a fundamental factor for the participation of learners with disabilities and researchers

such as Racionero and Padros (2010), conceptualizing learning as taking place due to dialogic interactions, recognizes the importance of social interactions between learners and others in the classroom. In Italy, where most learners with disabilities are educated in mainstream classrooms, Vianello and Lanfranchi (2009) argue that high academic and social achievement or, in contrast, a deficit in learning can be associated with the location of a student's education. In their research, they demonstrate that the achievement and social growth of students with disabilities are enormous when they are educated in inclusive classrooms.

Not only does inclusion have positive impact on the disabled students, but regular or nondisabled students as well. A research by Baker (2013) notes that inclusion of students with disabilities turn to benefit entire student bodies by teaching students about diversity in the real world and helping them develop empathy. Furthermore, inclusion enables friends to learn to accept one another's limitations and flaws and they help to complement one another's weaknesses by contributing their strengths. Friends also quickly learn that superficial differences are far less important than shared values, trust and humor (Baker, 2013; Binsadiq, 2020).

Inclusive education is not only about ensuring quality education while learners are at school but a prerequisite for social inclusion in further and higher education, employment, and life in the community (Kefallinou, 2020). Social inclusion is viewed as a set of dimensions that are important to individual characteristics, relationships and social networks, active enrollment in school, employment, and living in the community. Research shows that there is strong evidence that inclusive education is a prerequisite for social inclusion of people with disabilities during school years and after school (Kefallinou et al., 2020). An analysis of research evidence shows that

being educated in inclusive settings leads to greater social and academic achievement in school, paid employment after school, and social life within the community (European Agency, 2018a). Oh-Young and Filler (2015) revealed that studies conducted from 1980 onwards, attest to the fact that learners educated in inclusive setting have better opportunity to have higher social and academic performance compared to learners educated in segregated or less inclusive settings). The findings are further supported by longitudinal studies carried in the United States of America (USA), which affirmed that learners educated in inclusive settings are more likely to enroll in higher education where the researchers noted that increased attendance in the mainstream class and transition programs of high quality both positively influence enrolment in higher education (Bae et al., 2011; Flexer al., 2011; Kefallinou et al., 2020).

2.3.2 Tanzania Empirical Studies

A research done by Kabuta (2014) on “Problems facing students with physical disabilities in higher learning institutions in Tanzania”, found out that in most higher learning institutions there were enough teaching and learning materials for students with physical disabilities. The research further revealed that some students with physical disabilities argue that in academic point of view they were treated very equally with other students without disabilities hence study materials such as books, handouts, pamphlets and all other academic materials were distributed equally to all students. On accessibility to teaching and learning materials, the study showed that even though the materials for teaching and learning were available yet they were not accessible. According to the findings from the research, many students with physical disabilities argued that teaching and learning materials were available but were not

accessible or were difficult to access them (Kabuta, 2014,). In the same study, it was gathered that students with physical disabilities had challenges in accessing library and that the major limitation was the poor infrastructure leading to the library facilities that is stairs to the libraries were unfriendly to them because students could not climb due to their conditions.

Adequacy of teaching and learning materials is of importance to achieving inclusive education for both students with disabilities and without disabilities. Teaching and learning resources refers to satisfactory or acceptable quality and quantities of material resources, physical facilities and human resources (Okongo, Ngao, Rop, & Nyongesa, 2015).

2.4 Academic Experiences of Students with physical Disabilities

Positive academic experiences of students with disabilities is key to success in the classroom in relation to appropriate adaptations, reasonable accommodations and modifications made to the instruction and other classroom activities (Listen, 2010; Maingi-Lore, 2016). Flexible approaches in the school are needed to address the different abilities and needs of every learner. Where curricula and teaching methods are rigid and there is lack of appropriate teaching materials, students with disabilities can be at an increased risk of exclusion. United Nations Educational, Scientific and Cultural Organization, (UNESCO, 2009). Again, assessment and evaluation systems are often focused on academic performance rather than individual progress and therefore can also be restrictive for students who have special needs (UNESCO, 2009). Alhassan (2014) also show that large class-size is a challenge for most teachers in inclusive schools. The researcher found that teachers develop negative attitudes as a result of large class-size and therefore it is important for the government to initiate

more and complete more facilities to reduce the large class-size phenomenon to accommodate fewer students in the classroom for teachers to be able to meet the needs of every student (Alhassan, 2014). Another research carried out by Ofori (2018) also found that there were around 40 to 50 students in a classroom and this made it difficult for teachers to attend to all students, especially students with disabilities. As there were many students in a classroom, the researcher noted that it was almost impossible for the teacher to take care of all and it makes the practice of inclusive education a challenge.

Also, resources refers not only to teaching methods and materials but also the time available for instruction, the knowledge and skills of teachers acquired through training and experience (Owoko, 2010). Teaching students with special needs in the inclusive classroom deviates from the “regular” program. Students with special needs may require more instruction time, other learning methods and professional knowledge (Okongo et al., 2015). This can be achieved by an increase in resources or by re-arranging available resources. Students with special needs are not required to meet the classroom standard rather the classroom meets the individual needs of all students (Bargma, 2000 as cited in Okongo et al., 2015,). Oyugi and Nyaga (2010) note that teaching and learning resources include; peripatetic services, support staff (sign language interpreters and Braille transcribers), community involvement, regular and special teachers among others. Inadequate trained special education teachers and professional’s acts as an obstacle to implementation and teaching of students with special needs of inclusive education (Kochung, 2011). Oliver (1996) note that the education system has failed learners with special needs by not equipping them with appropriate teaching and learning materials to exercise their rights and responsibilities

as citizens, while the community and special education system has functioned to exclude them both from the education process and wider social life (Okongo et al., 2014).

Instructional methods, examination system and rigid curriculum are some of the barriers to implementation of inclusive education in schools in many countries including Ghana. Achieving a successful implementation of inclusive education requires adequate support human resource, teaching and learning resources (Okongo et al., 2015). However, there is lack of human resources, teaching and learning facilities; this goes to create enormous barriers to implementing successful inclusion (Crawford, 2004). Material resources including textbooks, charts, maps, audiovisuals and electronic instructional materials such as radio, tape recorder, television and video should be record and play to make inclusive education functional (Okongo et al; 2015). Furthermore, physical facilities such as classrooms, lecture theatres, auditoriums, libraries, laboratories, workshops, playgrounds, assembly halls, and special rooms like clinics, staff quarters, cafeteria, and toilet amongst others are critical for successful education. Puri and Abraham (2004) emphasize that classrooms need to be colourful, interesting, for learners to feel enthusiastic about coming to school centres. For easy access, ramps (for students with physical disabilities), hand-rail (for students with visual impairment), Braille for reading and writing are needed (Abraham & Puri 2004; Okongo et al., 2015). Eleweke and Rhoda (2002) and cited in Okongo et al (2015). noted that social facilities to accommodate learners with special needs are often non-existent or inadequate in many institutions. Even though many colleges and universities provide training for regular and special needs teachers, however there is concern regarding the adequacies of the programs, teaching and

learning resources, and these programs tend to focus on the pathology of disabilities, rather than instructing on modification to suit the needs of the student.

Reasonable accommodation means the necessary and appropriate modification and adjustments where needed in a particular case, to ensure persons with disabilities enjoy or exercise of all human rights and fundamental freedoms. United Nation (Tudzi, 2006; UN et al., 2017). Kothari (2010) also notes further that reasonable accommodation is manifested in various ways, including seeing to medical expenses, adjustment in teaching times (American Association of University Professors, 2012) and changes in the physical environment (Harvard Law Review Association, 2013). Reasonable accommodation could also involve adjustment in teaching, learning and assessment, or access to adaptive technology (Kendall, 2016). Limited or inappropriate resources serve as major obstacle to ensuring mainstream education for students with disabilities (UNESCO, 2009). There are shortages of resources such as inadequate facilities and lack of learning materials (UNESCO, 2000). A physical disability affects how a student performs in the classroom. The student may have difficulty performing basic activities such as gripping objects with hands, moving arms or legs in a full or even limited range of motion, and these issues lead to difficulties in turning pages, writing using pen or keyboards or a computer mouse (Adu, 2009).

UNICEF (2017) report that inclusive education can provide not only equal opportunities but also more balanced learner results. There is strong evidence to show that students with disabilities benefit academically from inclusive education and the academic impacts of inclusion have been studied in many ways with many different populations of students around the world (Abt Associates, 2016).

2.5 Social Experiences of Students with Physical Disabilities

As with most adolescents, going through the social context of senior high schools can be a formidable undertaking for students with physical disabilities. For many of these students, social connections with peers will remain difficult unless from structured efforts by school staff (Shattuck, Orsmond, Wagner & Cooper, 2011). Although examples of naturally forming friendships among students with and without severe disabilities have been described in literature (Rossetti, 2011), such relationships were not apparent and are infrequent in secondary schools.

Social experiences of students with disabilities in inclusive school shows little acceptance and a high level of rejection. In spite of this being an inclusive classroom, it shows the presence of social exclusion, the forming of defensive groups and strong rejection of specific members and thus, the student with a disability happens to be rejected because of their personal characteristics (Andrade & Fukuda, 2016). Research in the areas of inclusive education has shown that meeting the requirements of learners with disabilities in mainstream settings is not only achievable, but that it benefits learners both with and without disabilities (de Graaf, van Hove & Haveman, 2013). Hicks-Monroe (2011) reports that when students with disabilities are educated in mainstream environments, a series of benefits can result, which include “friendship, increased social initiations, relationships and networks, peer role model for academic, social and behavior skills, increased achievement of IEP (individual educational plan) goals, greater access to general curriculum, enhanced skill acquisition and generalization, increased inclusion in future environments, greater opportunities for interactions, higher expectations, increased school staff collaboration, increased parent participation and families are more integrated into community” (p. 65).

Furthermore, the study revealed that most of the participants' comprehension of disability was premised on the medical and individual. The students with disabilities were found to be dealing with the difficulties by trying to adapt to the system by themselves (Tran, 2014; Adhikari, 2018).

Many exploratory phenomenological studies have been conducted to understand the experiences of learners with disabilities in their participation in mainstream schools. As friendship is an important aspect of inclusion, some studies have explored the friendship experiences of learners with disabilities and these studies have highlighted that physical inclusion does not necessarily lead to social inclusion (Adhikari, 2018). The students' experiences of friendship are shaped by the values, beliefs, and customs of the education system, staff, and students (Morrison & Burgman, 2009). Academic achievement as found out seemed to facilitate the learners with disabilities identifying themselves as the accepted members of the class. Another study has showed that students with special education needs (SEN) experience more loneliness at school (Bossaert, Colpin, Pijl & Petry, 2012). A different study has also revealed that students with disabilities often experience difficulty in being accepted by peers and developing friendship (de Boer, Pijl, Post & Minnaert, 2013).

Borland and James (1999) cited in Adhikari (2018) conducted a case study exploring the social and learning experiences of students with disabilities in UK University. Four areas were found to be the most important for students with disabilities: disclosure, access, quality assurance and the moral basis of the institution's disability policy (p.310). The study further found that the students were found to be asked to disclose information about their disability at different stages, but the information they provided were not properly utilized. Implementing inclusive education demands

vigorous changes to systems, practice, norms and others. As inclusive is a process, it will be important when all necessary factors are put in place and well followed. Including providing the needed equipment and other material needed for the support of the inclusive education program. People need to develop positive motives and intentions about the practice of the inclusive education in both the educational system and society at large (Ofori, 2018). A study by Slee (2011) observes that people should develop a good mindset and attitudes that are positive towards the implementation of inclusive education. The study further advised that when people develop positive mindset or attitudes towards inclusive education, implementing and practicing inclusive education becomes less difficult.

The people need to be educated about the policy and the reasons why they need to develop good behavior towards children with disabilities and put them in regular schools to help them get a quality education (Slee, 2011). Educating the public will therefore, help to embrace and motivate the children with disabilities to be in regular schools and the society - if the public does not develop a positive attitude towards the children with disabilities, thus raising awareness, the implementation and practice of the policy becomes a challenge (Ofori, 2018). The family is a starting point where positive attitudes towards children with disabilities need to be developed. As noted by Obeng-Asamoah (2016), families especially the parents need to develop a positive mindset for their children who have disabilities. Parents are likely to send their disabled children to inclusive schools when they are able to develop positive attitudes towards them and by sending them inclusive schools, the children would be able to benefit from quality education and its advantages (Obeng-Asamoah, 2016). However, this may not be possible for many families of children with disabilities when they find

it difficult to show their disabled children in public due to negative attitudes from the public (Tchintcharauli & Javakhishvili, 2017). As stated in the Salamanca Statement, “a positive and good attitude from parents helps with school and social integration” (UNESCO, 1994, P. 37). This implies that parents require support to help their children who have disabilities by making available the needed information, educating them on the relevance of motivating their disabled children and placing them in school. With this, the Salamanca Statement provide that the national governments should promote parental partnership to enable parents to contribute to the development and decision making to enhance the education of the disabled children (UNESCO, 1994). If parents are not given the opportunity to participate in their children’s education, they do not encourage their children to be in school (Ofori, 2018).

Gadagbui (2010) discussed parents taking their non-disabled children out of regular schools where students with disabilities are receiving education. This is because Some parents see disability to be infectious, whiles others think allowing their wards to be in the same classroom could have a negative impact because children learn from their peers, this has to do with the individual believes, values and culture towards persons with disabilities. A study also shows that some families believe that disabled children should not be in the same class with their children because it lowers their grades and learning performance (Slee, 2011). Not all families are in support of the idea that disabled children be in the same school and the same learning environment as their children because they assume that their children will do better without the inclusion of students with disabilities in the same classroom (Ofori, 2018). This attitudes as noticed, seems to be prevailing in the society, where families and

people in the society are said to develop negative attitudes towards children with special needs which eventually prevents the successful implementation of the inclusive education policy (Ghana Education Service, 2015). In the views of Ofori (2018) the public and families need to develop good and positive behavior towards disabled children for their inclusion in school to be effective which helps with the successful implementation and practice of inclusive education.

In discussing the negative attitudes from parents of children with and without disabilities as a challenge towards inclusive education, it is also paramount to discuss the negative attitudes of teachers as well. A research work revealed that teachers can develop a positive attitude towards the students with disabilities needs (Obeng-Asamoah, 2016), however, when teachers are not trained to handle students who have disabilities in mainstream classrooms; it becomes a challenge for them to handle the students and may turn to develop negative attitudes for the student with special needs (Agbenyega, 2007). Evidence from various countries point out that teachers generally support the concept of inclusive education but attention is drawn to the teachers not having the capacity to teach in inclusive classrooms (Chiner & Cardona, 2013). Two surveys carried out in Spain revealed that although teachers were in favor of inclusion in theory, only a handful were willing to accept students with disabilities in their classrooms (Cardona, 2000, cited in Abt Associates, 2016, p. 19). The teachers associated lack of training as the basis for refusing to include students with disabilities in their classrooms (Abt Associates, 2016).

A study carried out in Ghana, shows that teachers make complaints about including students with disabilities in mainstream classrooms by stating that, they need the support of the principals, authorities and specialists in the schools to help them

educate students with disabilities (Agbenyega, 2007). Furthermore, the teachers noted that including students with disabilities in regular classes affects the academic performance of students without disabilities and the school's academic success. If teachers are to be committed to the policy of inclusion, the needed infrastructures, resources and facilities need to be provided to boost the work of the teachers to teach students who have special needs in their classrooms (Kuyini, 2010). It is also vital for resources and facilities to be provided to serve as opportunity for students with disabilities as a part of the organization process to help include disabled students in mainstream settings and making sure that the facilities are in proper shape to accommodate the students when they are finally included (Sharma, 2015).

As noted by the World Report on Disability, children with disabilities are often categorized according their health conditions to determine their eligibility for special education and other types of services (Florian, Hollenweger, Simeonsson & Wedell, 2006; WHO & World Bank, 2011). The report further noted that assigning labels to children in education systems can have negative effects including stigmatization, peer rejection, lower self-esteem, lower expectations, and limited opportunities.

Lacking the necessary infrastructure, resources and facilities make the teachers to develop negative attitudes towards the implementation of the inclusion policy program and the students with disabilities who have been included in regular classrooms and teachers turn to think these students need to be excluded (Kuyini & Boitumelo, 2011). The Ghana Education Service (GES) (2004) in supporting the argument for providing the necessary facilities, resources and infrastructure noted that, without those factors in place implementing, achieving and practicing inclusive education will be a daunting task. The service further mentioned that one of the

challenges Ghana faces with inclusive education is lack of adequate resources and facilities, which in their opinion has contributed significantly negatively towards achieving an all-inclusive education and “Education for All” (P. 16).

2.6 Physical Environment Experiences of Students with Physical Disabilities

The physical environment of schools thus defines whether all children are physically, pedagogically and functionally included or excluded from school program (Francis, Acka-Jnr & Danso, 2018). To promote inclusive education, new schools are being designed to be accessible, barrier free, welcoming, and generally more supportive of children with disability, more especially those with physical disability. In Ghana, for example, the physical environment of most schools implementing inclusive education seems to be user-friendly mostly for students without disability, and the architectural design and physical layout of most buildings are still tailored to fit and fix students without disability (Francis et al., 2018). A study in Australia revealed that little account is taken of individual differences in students, and not much attention is given to school design as a factor for successful inclusive education (Elkins, 2005). Another research in Ghana also shows that students with physical and neuromotor disability struggles to fit in or face daily challenges using school facilities and navigating schools settings and other public buildings (Francis et al., 2018). An analysis of the policy guidelines on the planning and design of school environment and infrastructure (Education Act 1961, Education Act 2008, Inclusive Education Policy, 2015), reveals that they have been fully tailored to support the effective use of facilities and other aspects of the physical environment by children with disability, which potentially affects inclusive education (Francis et al., 2018).

The Ghana Disability Act 2006 (Government of Ghana, 2006), recognizes that for persons with disabilities to effectively use school facilities, equipment and other areas of physical environment, and thus promote the inclusive education agenda,

The Minister of Education shall by Legislative Instrument designate schools or institutions in each region which shall provide the necessary facilities and equipment [and barrier-free physical environment] that will enable persons with disabilities to fully benefits from the schools (s. 715, p.17, emphasis added).

Also, the Ghana Education Act 2008 (Government of Ghana 2008) further instructs that;

District Assemblies and heads of institutions shall ensure that designs for schools are user-friendly for children with special needs and disability, and institutions, including regular schools that deliver education to children with special needs shall improve upon existing infrastructure and provide for additional facilities where necessary (Education Act778, p.5, emphasis added).

Again, the Standards and Guidelines for the Practice of Inclusive Education in Ghana 2015, Standard I, are the provisions for enabling access to schools for children with disability, deemed also to benefit children without disability (Francis et al., 2018).

Critically, the Guidelines recommended that;

Inclusive education standards shall satisfy anyone who is hindered from participating successful in learning as a results of obstacles put in their way by siting of the school, design of buildings, materials, arrangement of out-or-inside space, attitudes of staff, equipment and materials...and pedagogy (Ministry of Education [MoE], 2015b, p.6).

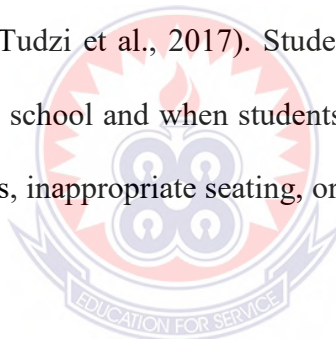
However, it is generally evident that most schools practicing inclusive education operate in unchanged physical environment and educational facilities. Thus, a further

look at inclusive schools indicates a seemingly lack of adaptation and modification of the physical environment, including architectural designs and facilities to meet the needs of children with disability (Francis et al., 2018). Furthermore, there are still problems of stairs, narrow doorways, inappropriate seating, and rigid classroom design and school compounds, which generally affect access, student learning, participation and achievement or engagement (Francis et al., 2018). In the light of this and for students with physical and mobility disability and other sensory disability especially, inclusive education schools should avoid architectural elements such as flight of stairs to rooms and slippery outdoor surfaces, as well as heavy doors and narrow doorways (Winter & O’Raw, 2010), which may induce fatigue and exclusion or minimize use of facilities. Previous studies have also indicate that classroom management is an integral part of a carefully planned physical environment (Allen & Cowdery, 2015), influencing how teachers and students feel, think and behavior in inclusive schools (Weinstein, Mignano & Romano, 2011).

Well-arranged classrooms with barrier-free is seen to foster free movement of students with disabilities between desks or tables and to the general areas of the school. Again, at the classroom physical access need to be the first consideration for effective inclusive education (Elkins, 2005). Lewis and Doorlag (2006) also noted that in well-planned inclusive education classrooms, effective seating arrangement and spacing and instructional materials are placed within the reach of all children, and adequate storage spaces are also created for special equipment such as magnifying devices, crutches and adaptive keyboards for computers. The authors further listed bookshelves and bulletin boards are also conveniently located to facilitate their use by students with disability, and there are adequate spaces in the general areas of the

school to accommodate all students, for example; classrooms, hallways, exits and washrooms.

Physical access is a widely documented barrier for students with disabilities to higher educational and learning institutions, yet it continues to be a critical issue (Riddell, Tinklin & Watson, 2005). (United Nations {UN}, 2006) Accessibility may involve taking measures to guarantee access on an equal basis to the physical environment by persons with disabilities as persons without disabilities. While accessibility standards seek to address the general needs of persons with disabilities, reasonable accommodation addresses the specific and relevant needs of the individuals with disability to enable him or her to enjoy his or her right in a particular setting or context (Degener, 2016; Tudzi et al., 2017). Students with physical disabilities face difficulties in traveling to school and when students reach school, there are problems of stairs, narrow doorways, inappropriate seating, or inaccessible toilet facilities (Kiat, 2014).



Disability is a form diversity (Dunn & Andrews, 2015), and inclusion is a way of bringing together and harnessing diversity (Arzola, 2008). Mainstreaming focuses on the needs of every learner and calls for respecting their differences (British Council, 2014). The right to an inclusive education demands that all mainstream educational institutions welcome all learners and adapt their infrastructure and services to meet the needs. A study of the experience of an inclusive school education for learners with disabilities (LWDs) in Nepal revealed that the LWDs had been facing challenges in learning as a result of inadequate disability-friendly resources and infrastructure in the public schools (Save the Children Norway-Nepal, 2004). In addition to the inadequate support systems, the study showed that learners were facing barriers commuting to

and from schools. Another study on the experiences of students with disabilities in school settings in the context of Vietnam showed that students with disabilities most important barriers or challenges were associated to learning facilities, empathy from their peers and barriers effected by the physical environment (Adhikari, 2018; Tran, 2014).

Since the extensive review of the research on the importance of the physical environment of schools (Weinstein, 1979), many researchers have also painstakingly investigated the impact of different aspects of the physical environment on the education of all children generally, and more specifically children with disabilities (Agiovlasitis, 2017; Jin, Yun & Cheryan, 2014). Research studies revealed that the nature of physical environment in inclusive schools influences teacher and student behavior, student learning and achievement (Cheryan et al., 2014). School environment that support inclusion of students with disabilities reduce unnecessary exclusionary barriers, and also increase presence, participation and achievements of all learners (Ainscow & Kingston, 2006 & Danso, 2018; Booth, Francis, Ackar-Jnr).

2.7 Improving Experiences of Students with Physical Disabilities

Educating students with disabilities in mainstream classrooms together with their peers bring many benefits not only for the disabled students but for parents, non-disabled students, teachers, schools and society as a whole (Ofori, 2018). Furthermore, this leads the government to provide more facilities. As the government aimed at implementing and practicing inclusive education, it builds more schools and provide more facilities which do not only benefit students with disabilities but everyone around them (Ofori, 2018). Providing more school facilities encourages more children to be in school because lack of facilities serves as common barrier for

many children who find themselves out of school system (Obeng-Asamoah, 2016). Alhassan (2014) also recognized that creating more opportunities by building more facilities encourages more students to remain in school and it again provide teachers the platform to develop positive attitudes towards students with disabilities. Providing more facilities help to reduce the large class-size syndrome that makes teachers unable to meet the needs of every student in the crowded classrooms, as teachers would now to able have ample time to focus on each student especially those with special needs (Ofori, 2018).

Moreover, as the government builds more facilities, it effectively reduces cost because it becomes more cost effective to build facilities that include and benefits all students than to spend additional cost to build separate facilities for students with disabilities (Obeng-Asamoah, 2016). Agbenyega (2007) also that when government can reduce cost by providing more facilities to benefit all students in mainstream setting, they can channel the remaining funds to help equip teachers with the requisite skill and knowledge, thereby helping to train more teachers and developing their expertise to help in handling and teaching diverse students in the schools. Also, as teachers gained expertise, they develop innovative ways, techniques, teaching approaches and styles to educate students with disabilities (Ofori, 2018). This again helps to develop teachers to become more creative and innovative in their teaching strategies (Gadagbui, 2010).

Teachers normally feel that inclusive education is something they are told to do – often without support and the needed resources and it becomes a top-down burden rather than a collaborative process (Singal, 2009 as cited in Schuelka, 201, p. 8). Therefore, it is important for teachers to have knowledge and skill to create inclusive

classrooms, as well as for school leadership to provide an inclusive and innovative environment for teachers to flourish (Schuelka, 2018). Furthermore, teachers can also be motivated to be more inclusive by providing more structured and supported expectations as to how they teach and as to how inclusive education ‘looks like’ in the classroom (p. 8). UNESCO (2016) suggests indicators that can help teachers review their classrooms:

1. Teaching is planned with all students in mind
2. Lessons encourage the participation of all students
3. Students are actively involved in their own learning
4. Students are encouraged to support one another’s learning
5. Support is provided when students experience difficulties
6. Classroom discipline is based on mutual respect and healthy living
7. Students feel that they have somebody to speak to when they are worried or upset and
8. Assessment contributes to the achievement of students (UNESCO 2016, P. 109 as cited in Schuelka, 2018, p. 8).

Evidence from literature strongly shows that inclusive teaching practices raise the achievement of all children in the classroom (Sailor, 2015). In that way, inclusive teaching can be synonymous with quality teaching (Schuelka, 2018). Again, good practices for inclusive and quality teaching include learner-centered pedagogy and universal design for learning. School leadership is also crucial for the successful implementation of inclusive education (Villa & Thousand, 2016). The UNESCO (2016) outlined helpful set of indicators for teachers to use to review their schools. These include “making everyone to feel welcomed, students are equally valued, high

expectations for all students, staff and students treat one another with respect, partnership between staff and families, schools accessible to all children, senior staff support teachers in making sure that all students participate and learn, and the school monitors the presence, participation, and achievement of all students” (p. 47).

Although teachers are key practitioners for the education of students with disabilities, they cannot be singled out as the only party responsible for the participation of such learners with disabilities. An Agency report on Teacher Education for Inclusion across Europe (European Agency, 2011) reported that teachers need certain conditions to implement inclusive practice and emphasized the need to develop teachers, not only in terms of effective skills and competence, but also in terms of values and principles. In another Agency report on Inclusive Watkins (2007) as cited in Europeans Agency for Development in Special Needs Education (hereafter European Agency) (2013) concludes that an organizational culture is needed that promote inclusion and leads teachers and school leaders to re-think and re-structure their teaching and assessment practice to improve the education of all learners.

According to Ofori (2018), inclusive education puts both non-disabled and the disabled students in the same classroom with teaching approaches that benefits all of learners. Ofori further noted that the environment must be free and safe for all the students and there are should be facilities to accommodate all children and this encourages everyone to develop positive attitudes towards students who have special learning needs. When teachers receive education and are fully equipped and supported in inclusive practice, it helps to develop positive attitude and behavior towards disabled students (Alhassan, 2014). More so, this encourages teachers to teach and train their students to d same. Teachers again need to apply teaching approaches that

include students with disabilities which makes them respect and encourage their students to the same (Banks & Banks, 2010). Gadagbui (2010) also added that as children are taught to respect each other, they play, work, study and help one another when one is in difficult situation or does not understand the subject being taught in class. This makes students with disabilities feel accepted by their peers and encourages children to stand up for one another to fight discrimination among them (Obeng-Asamoah, 2016, Ofori, 2018). Positive attitudes from families and society is important to foster union between the school and parents, by making teachers and parent to help each other and in turn help their disabled within school, as this would help encourage parents who want to withdraw their children from school to reconsider their plans (Gadagbui, 2010).

A curriculum that is not flexible but rigid and centralized cannot support opportunity for modification and as a result does not also support inclusive education in schools (European Agency 2011; Schuelka, 2018). Ministries of Education and other bodies overseeing education and policy groups need to have influence in regard to allowing curriculum to be modified, providing another forms of assessment, and allowing for teachers and students to have ownership of the curriculum and learning outcomes (Schuelka, 2018). Literature shows that an increase in the diversity and breath of learning outcomes, coupled with an increase in the variety of means that a student can achieve these learning outcomes, will facilitate successful implementation of inclusive education (European Agency, 2017, Schuelka, 2018). Also, it is reported that learning personalization for each individual student can be very successful (Rhim & Lancet, 2018).

Classroom organization and individual learner support is one important aspect of achieving a successful implementation of inclusive education for students with disabilities. Research shows also shows that if inclusive settings are poorly designed and arranged, the possibility of any improvement for learners with disabilities would never exist or drastically are reduced (Waldron & McLeskey, 2010). What it means is that the organization of in-class support – including teaching and learning approaches and curriculum and assessment – that promotes learner participation in the mainstream classroom (European Agency, 2013). Furthermore, individual support can be seen as a way of modifying the organization of teaching and learning and curriculum and assessment in order to respond to the specific requirements of individual learners – from personalization of teaching and learning to different forms of in-class support, such as the provision of additional aids and the support provided by assistants and peers.

An investigation into the perspectives of learners with disabilities who receive additional support shows that learners appreciate support that allows them to take part in classroom activities and the school community, but they do not like support that makes them feel ‘different’ from their peers (Mortier et al 2011). From an inclusive perspective, it is important that learners with disabilities should themselves be listened to, when providing individual support, rather than planning according to a normative system of categorization (European Agency, 2013).

2.8 Chapter summary

This chapter has reviewed related literature on the Experiences of students with Physical Disabilities in Mainstream Senior High School based on the research questions. The review was intended to build the necessary ground for the study, and to

demonstrate the relevance of the research questions that the study will be seeing to answer.

It first looked at the theoretical review (Social Model of Disability) by taking into consideration how it relates to the experiences of students with physical disabilities. The conceptual review, and the empirical findings. This was followed by review on themes derived from the objectives for the study. This includes; academic experiences of students with physical disabilities, social experiences of students with physical disabilities, physical environment experiences of students with physical disabilities, and improving experiences of students with physical disabilities.

The review showed that it is society which disables people with impairments and therefore any important explanation must be concentrated on societal change rather than individual adjustment and rehabilitation. The discussion has also revealed that positive academic experiences of students with disabilities is key to success in the classroom in relation to appropriate adaptations, reasonable accommodations and modifications made to the instruction and other classroom activities. Social connections between students with physical disabilities and their peers will remain difficult unless from organize effects by school staff.

The review further suggest that students with physical and neuromotor disability struggle to fit in or face daily challenges using school facilities and navigating schools and other public buildings despite the all effects aimed at promoting inclusive schools. Creating more opportunities by building more facilities encourages more students to remain in school and it again provide teachers the platform to develop positive attitudes towards students with disabilities.

CHAPTER THREE

METHODOLOGY

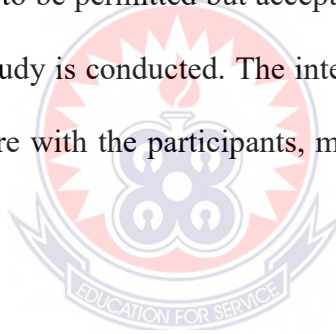
3.0 Introduction

This chapter presents the steps taken to conduct the research. The philosophical underpinning of the study, research approach, research design was addressed followed by the research population, sample and sampling method, sources of data, instrumentation, trustworthiness of the study, data collection procedures and data analysis procedures were also discussed. Finally, ethical issues were addressed followed by a closing summary of the chapter contents.

3.1 Philosophical Underpinning of the Study

An important academic research of this nature deserves to lay claim to theoretical frameworks and philosophical perspectives regarding knowledge on the assumption on how we will study what we intend to learn as paradigm embedded in the research methodology (Martens & Wilson, 2012). The philosophical and theoretical perspectives or assumptions underpinning this study is interpretative or constructivist epistemology which argues that, meaning is constructed not discovered, so subject construct their own meaning (Kusi, 2012). This is linked to the nominalist ontological position which posits that knowledge of the world is socially constructed, understood and interpreted by the individual participants based on their experiences of the world in which they live and work (Kusi, 2012). Interpretive paradigm is chosen because the purpose of the study is to explore a phenomenon. Interpretive research acknowledges the feelings, experiences and viewpoints of the researched as data (Kusi, 2012). According to Kusi (2012) the interpretivist uses open-ended research questions and also focuses on qualitative data, from which the researcher will interpret meanings.

Interpretive paradigm was chosen for this particular study for three reasons. Interpretive paradigm allows the researcher to access the experiences and viewpoints of the research participants, recognizes the role of the researcher and the research participants in knowledge construction and is useful in an attempt to understand a phenomenon in all its complexity in a particular socio-cultural context (Kusi, 2012). It also said that the interpretivist studies often use small numbers of participants. This is because the purpose is not to generalize, but to explore the meaning which the participant place on the social situation under investigation. The interpretive paradigm is interested in understanding the view of the participants, rather than predicting what the individual will say. The interpretive paradigm does not consider the knowledge generated from the study to be permitted but accepts it as relative to the time, context or culture in which the study is conducted. The interpretive paradigm also allows the researcher to interact more with the participants, making the researcher active in the research.



3.2 Research Approach

The study selected the qualitative research approach to find out the experiences of students with physical disabilities at Asikuma-Odoben-Brakwa District. The use of the qualitative approach was adopted because of its appropriateness for examining and soliciting information in relation to participants' academic, social and physical environment experiences in the schools. The qualitative research approach considers collecting information from participants in order to understand the phenomenon under the study from the viewpoints of those involved in the study (Ary, Jacobs & Sorensen, 2010). In this study, the researcher sought to rely on the qualitative approach, to have a detailed account of the participants' experiences.

3.3 Research Design

The study adopted phenomenological study as its research design, as the researcher wanted to gain insight into the lived experiences of the participants (Flood, 2010). Phenomenology can be explained as an approach to research that seeks to describe the essence of a phenomenon by exploring it from the perspective of those who experienced it (Teherani et al., 2015). The goal of phenomenology is to describe the meaning of this experience - both in terms of what was experienced and how it was experienced. As noted by Wilson (2015), the objective of phenomenology is to understand human experience. Again, the fundamental goal of the approach is to arrive at a description of the nature of the particular phenomenon (Creswell, 2013). As a result, the researcher adopted the phenomenological design to discover the lived experiences of students with physical disabilities in a mainstream Senior High School in Asikuma-Odoben-Brakwa District. The choice of the design worked well in gaining a clearer understanding of current academic, social and physical environment experiences of students with physical disabilities. Additionally, the phenomenological design allowed for an expansion of what is learned from the responses rather than setting limits on what is studied opposing what is generally shown more often in a quantitative study approach (McMillan, 2016). More so, the study approach requires the practice of bracketing by the researcher, thereby allowing the focus to remain solely on the experiences of the study participants (Creswell, 2013; Leedy & Ormrod, 2019).

3.4 Population

A population is group of cases or elements, comprising either individual objects or may be an event that conform to a particular criteria and to which a researcher may

intend to generalize the results of the study. This group may also be referred to as a target population or universe. The total study population was 11 students with physical disabilities in the three public mainstream Senior High Schools in the District. This represents three males' eight females respectively. Thus, eight students were identified at Asikuma Senior High School, two at Brakwa Senior High School and one student at Odoben Senior High School.

3.5 Sample

Malterud (2016), explain that a study aiming at exploring a phenomenon is best achieved using a sample size of 5-20 participants. In addition, Thorne (2008) is of the view that with a qualitative research, a sample as small as 5 and as large as 30 can be used. In line with the above assertions, the study sampled all the 11 students with physical disabilities to form part of the study. This included three males and eight females respectively. This was made up of eight students from Asikuma Senior High School, two students from Brakwa Senior High School and one student from Odoben Senior High School.

3.6 Sampling Technique

A census method was used for the study. What this means is that all the 11 students with physical disabilities that constituted the totality of the population in the study was selected for the data collection. The census method was used in this situation because the study population and the sample size were small.

3.7 Sources of Data

Primary and secondary sources of data were collected and used for this study. Primary data refers to data observed or collected directly from participants experience

(Johnson & Christiansen, 2012). For the purpose of this research, primary data is obtained through semi-structured interviews.

Secondary data refers to existing data used by the researcher in answering his/her research questions (Joppe, 2000). For the purpose of this research, previous research materials available on similar topics are relied upon. These serve as an input into the study. Other forms of gathering secondary data are visiting the World Wide Web, both published and unpublished journals, periodicals, theses, dissertations etc. Besides, articles, books, and internet sources were used to review literature.

3.8 Instrumentation

While quantitative researchers chose precise procedure for their data collection, the mandate of the phenomenological researcher may be more rigorous and complex. In phenomenological type of research, the researcher is shown to be the primary measuring instrument, and what this suggests is that the researcher carries out data collection and becomes individually involved in the phenomenon being studied... "Few of the procedures are standardized or can be specified in advance of the data collection" (Gall, Borg, & Gall, 2013, p. 290).

3.8.1 Interviews guide

The interviews guides consisted of open-ended questions (Creswell, 2015). The study adopted semi-structured interviews where some questions were asked to follow unexpected leads and to pursue all points (Glesnse, 2011) Bernard and Ryan (2010) described semi-structured interviews as "based on an interview guide - a list of questions and topics that have to be covered... using a variety of probes... and [the researcher] decides when the conversation on a topic has satisfied the research

objectives" (p. 29). The questions formulated during the interview provided the data the researcher needed to address this study's research questions. The questions for the interview were open-ended and semi-structured. The interview as a method of data collection allowed for an open-ended exploration of the topics in the research as well as stimulated responses that would be understood in the unique words of the participants (Gall, Borg, & Gall, 2013). The use of semi-structured interview questions permitted the participants to express themselves freely and also enabled the researcher to avoid asking questions that would have elicited yes and no answer.

Face-to-face interviews were conducted for the participants. In this instance, the researcher decided to ask questions and recorded answers from one participant at a time (Creswell, 2015). These approach though time consuming, it gave much privacy to the participants to freely articulate themselves as may not had been so with the focus group interviews. With the kind permission of the participants of the study, the interviews were recorded using a smart phone. In addition to the interviews been recorded, notes were also written down where necessary.

3.9 Trustworthiness

Qualitative research is trustworthy when it accurately represents the experiences of the study participants (Speziale & Carpenter, 2011). To ensure that data collected remain trustworthy during and after collection, the researcher discussed the interview guide with the supervisor before it was administered. The suggestions from the supervisor helped the researcher to modify the interview questions. Not to skew the interpretation given by the participants, the researcher maintained a degree of neutrality in her findings. Four criteria proposed by Guba and Lincoln (1985) used to

measure the trustworthiness of qualitative data collected are credibility, transferability, dependability and confirmability.

3.9.1 Credibility

This qualitative study sought to identify an authentic understanding of a specific phenomenon (LeCompte & Geotz, 1982). Thus, the credibility of the human experience, explained in categories, reflects an assurance that the phenomenon exists (Zambrano, 2016). Triangulation as noted by Lincoln and Guba (1985) is a validity measure that makes use of different sources, theories, and methods to analyze the same information. In this study, the use of triangulation was demonstrated by using audio-recordings and field notes as part of the data collection. To further enhance the validity of the study, the researcher once again carried out member checking. Member checking in the study refers to an examination of interpretations, categories, and conclusions with the stake-holding groups from which data were originally collected. These processes were carried out to ensure clarity and accuracy while collecting qualitative data.

3.9.2 Transferability

Transferability is equivalent to generalizability of findings in qualitative study (Kusi, 2012). This refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts (Trochim & Donnelly, 2006; Bhattacharjee, 2012). The researcher achieved this in this study by extensively and thoroughly describing the process that was adopted for others to follow and replicate. Thus, the researcher kept all relevant information and documents regarding the study. Also, in this study, the research context, and methodological processes was provided. These could enable other researchers to apply the findings of this study to similar

settings of their choice thereby regarding the findings in this study as answers in their chosen contexts. Furthermore, there was adequate background information about the respondents; the research context and setting that allow others to assess how transferrable the finding is. The researcher kept accurate record of all the activities while carrying out the study. These include the raw data (transcripts of interviews) as well as details of the data analysis.

3.9.3 Dependability

Dependability corresponds to reliability of findings in qualitative research (Merriam & Associates as cited in Kusi, 2012). Guba and Lincoln (1985), admit there could be no credibility without dependability in qualitative research. Also, it is concerned with whether we would obtain the same results if we could observe the same thing twice (Trochim & Donnelly, 2006). Dependability in this study was related to consistency and it was done by making sure that the researcher checked whether the analysis process was in line with accepted standards for the design of the study. An extensive and detailed evidence of the process in which the research is conducted was documented in order that others can replicate and ascertain the level of dependability. To ensure dependability, interpretive researchers must provide adequate details about their phenomenon of interest and the social context in which it is embedded in order to allow readers to independently authenticate their interpretive inferences (Bhattacharjee, 2012).

In this study, dependability was established through the establishment of appropriate enquiry decision. This included review of interviewer bias to resist early closure and at the same time prevent the provision of unreliable data due to boredom on the part of the respondents because of prolonged interview sessions. In addition, information

from literature assisted the researcher to develop questions that elicit appropriate responses to answer the research questions that are formulated to guide the study. There was a systematic data collection procedure that reached the point of saturation, the extensive documentation of the data (transcriptions of interview narratives), methods and decisions in the memo are steps in proving the dependability of the data. Thesis supervisors assessed the work to find out whether or not the findings, interpretations and conclusions are supported by the data.

3.9.4 Confirmability

Trochim and Donnelly (2006) declare confirmability to mean the degree to which the results could be confirmed or corroborated by others. Also, confirmability refers to the extent to which the findings reported in interpretive research can be independently confirmed by others, typically, participants. This is similar to the notion of objectivity in functionalistic research. Since interpretive research rejects the notion of an objective reality, confirmability is demonstrated in terms of "inter-subjectivity", i.e., if the study's participants agree with the inferences derived by the researcher. In order to establish confirmability, the researcher after coding and transcribing the audiotapes, interview questions, and all other relevant information and documents regarding the study, it was given back to the participants to confirm the responses. The researcher effected changes where necessary and give the transcribed data back to the participants again for them to authenticate the inferences derived by the researcher. The researcher then took the final transcribed data from the participants as a true record of what the respondents factually provided.

Confirmability was also achieved through neutrality. The purpose of the above was to ensure that the interpretation of the data would not be based on the researcher's own

particular preferences and viewpoints but rather to be fully grounded in the data collected.

3.10 Procedure for Data Collection

3.10.1 Gaining entry

The site where the research took place and gaining entry was of great paramount to the researcher (Creswell, 2012). In view of this, the researcher obtained an introductory letter from the Department of Special Education, University of Education, and Winneba to the three mainstream senior high schools within the Asikuma-Odoben-Brakwa District in the Central Region of Ghana, for permission to enable the participant to be allowed to take part in the study. The date, time and meeting place for the interviews were well communicated and approval was duly granted before the study was carried out. As stated earlier, semi-structured interview guide, which took the form of probes and covered all the items couched out of the raised research questions were used to elicit responses from the participants. Again, the recording device used was clearly explained to avoid any ambiguity and Creswell (2012), acknowledged would permit negotiating approval with the participants at the site which can facilitate collection of qualitative data.

3.10.2 Concerns over reflexivity and reactivity

In the first time of visiting the site for the study, the researcher acknowledged that there were some reservations among the school authorities about my presence on the site as a result of security implications. In view of this, the researcher was determined not to make his presence among the authorities discomfoting for them, and so to reassure the school authorities and the participants themselves, the researcher after every interview played back the interviews recordings as well as read back to the

participants the written notes that were taken. This method was adopted in order not to compromise the method of ethical issues involved as a researcher (Robson, 2011s).

3.10.3 The field work reflection

This highlights the aspects of the researcher's reflection whiles carrying out the study in the Asikuma-Odoben-Brakwa District during the exploration of experiences of students with physical disabilities in mainstream senior high schools. The primary method of eliciting responses from the participants was done through the use of interviews using interview guide structured in a probe form. Although enough preparation had gone into the study, the researcher later realized further difficulties which were not anticipated. Some of the difficulties included the following:

- The agreed time for the interviews to be conducted was most often delayed due to the participants' unpreparedness.
- There was again difficulty moving from one participant home to another as a result of distance.
- The researcher had to most of the occasions re-scheduled the interview time due to the researcher's work schedules.

3.10.4 Participants' inclusion criteria

In qualifying for the study, the participants must possess the following characteristics:

- a) Must present a physical disability.
- b) Already enrolled onto the mainstream senior high school in the district.
- c) only participants who have accepted to be part of the study

3.11 Data Analysis Procedure

This section describes the data analysis process used in the study. The data analysis began with coding. Creswell (2015) describes codes as "labels used to describe a segment of text" (p. 243). In coding the data, the researcher divided the text into segments, labeled the segments with codes, examined the codes for overlap and redundancy, and collapsed these codes into broad themes (Creswell, 2015). Themes were created by grouping similar codes (Creswell, 2015). Themes are defined as "similar codes aggregated together to form a major idea in the database" (Creswell, 2015, p. 244). There were major and minor themes in the data. When saturation was reached, the researcher stop developing themes because at that point no new information could be added to the list of themes (Creswell, 2015). Again, recorded interviews were transcribed. This was done by converting the audiotape recordings into text in order to make sense out of the data (Creswell, 2012).

3.12 Ethical Considerations

To ensure ethical consideration in the study, the researcher made sure that all participants report their verbal consent. The principle of informed consent was for the researcher to provide sufficient information and assurances about taking part to allow participants to understand the implications of participation and to reach a fully informed, considered and freely given decision about whether or not to do so, without the exercise of any pressure or coercion. Again, the privacy and anonymity of the participants was of paramount importance to the researcher. Acknowledgements of other authors used in any part of the study were dully referenced. Moreover, participants were duly informed to feel obliged to withdraw from the study at any stage should they wish to do so.

3.13 Chapter Summary

In summary, this chapter extensively talked about how the study was conducted. Thus, how data was collected on the field, analyzed and interpreted. It presented researcher's philosophical assumptions, research approach, research paradigm, research design, population, sample and sampling techniques, instrumentation and sources of information. Trustworthiness of data collected was achieved using Guba and Lincoln's (1985) criteria of credibility, transferability, dependability and conformability. Ethical issues were also addressed.



CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introductions

This chapter presents the results and discussion of the data gathered from the research participants. It is divided into three major sections. The first section deals with the demographic characteristics of the participants. The second section presents the results of the data analysis based on the research questions and the third section on the discussions.

4.1 Demographic Characteristics of the Participants

This section present results of the demographic characteristics of the participants. The demographic characteristics assessed in this study were participants' school, age, gender, and course, type of mobility devices used and causes of disability. Table 4.1 summaries the results of the participants' schools.

Table 4.1: Participants' schools

Class/form	Frequency	Percentage (%)
Asikuma SHS	8	72.7
Brakwa SHS	2	18.2
Odoben SHS	1	9.1
Total	11	100

Source: Researcher's Fieldwork Data (2021)

The results in the table shows that 8(72.7%) of the students attend Asikuma SHS. Two students representing 18.2% are students from Brakwa SHS while 1(9.1%) is a student at Odoben SHS. The majority of the students who participated in the study are Asikuma SHS students.

Table 4.2: shows the age of Participants

Class/form	Frequency	Percentage (%)
16 years	4	36.4
17 years	3	27.3
18 years	3	27.3
19 years	1	9.1
Total	11	100

Source: Researcher's Fieldwork Data (2021)

The age of the students ranges from 16 to 19 years. Four (36.4%) are 16 years. Three students each are 17 years and 18 years. Representing 54.6% of the participants. The oldest student is 19. The researcher is of the view that, there is no limit in age and physical disability since both the old and young have been victims' of physical disability in one way or the other.

Table 4.3 summarizes the results of the gender of the students.

Table 4.3: Gender of students

Gender	Frequency	Percentage (%)
Male	3	27.3
Female	8	72.7
Total	11	100

Source: Researcher's Fieldwork Data (2021)

Table 4.3, shows that out of the total of 11 participants, 3 (27.3%) were male while the remaining 8(72.7%) were female. This suggests that the number of females in the study outnumber the males. This means that the data collected is more likely to reflect more female students' perspectives than male students.

Table 4.4: Participants' course

Class/form	Frequency	Percentage (%)
General Arts	6	54.5
Business	3	27.3
Home Economics	2	18.2
Total	11	100

Source: Researcher's Fieldwork Data (2021)

Data in Table 4.4 reveals that 6(54.5%) students are in the General Arts on the other hand, 2(18.2%). Students belong to the Home Economics class. The Majority of the students involved in the study were are General Arts students.

Table 4.5: Type of mobility devices used

Type of mobility devices used	Frequency	Percentage (%)
Crutches	6	54.5
Prosthetic devices	2	18.2
Walker/frames	1	9.0
Wheelchair	2	18.2
Total	11	100

Source: Researcher's Fieldwork Data (2021)

Table 4.5 shows that, 6 (54.5%), student use crutches, while 1 (9.0%) use a walker/frame. The data on the table suggests that, the majority of the students involved in the study use crutches.

Table 4.6: Causes of disability

Class/form	Frequency	Percentage (%)
Diseases	5	45.5
Congenital	5	45.5
Accident	1	9.0
Total	11	100

Source: Researcher's Fieldwork Data (2021)

Data in Table 4.6 reveals that 5 (45.5%) students with disability was caused by diseases, while 1 (9.0%) had his disability through an Accident. This suggests that the majority of the students involved in the study had their disability caused by diseases and congenital conditions.

Table 4.7: Types of Physical disabilities

Types of Physical disabilities	Frequency	Percentage (%)
Muscular dystrophy	4	36.4
Spinal cord injury	2	18.2
Multiple sclerosis	4	36.4
Amputation	1	9.1
Total	11	100

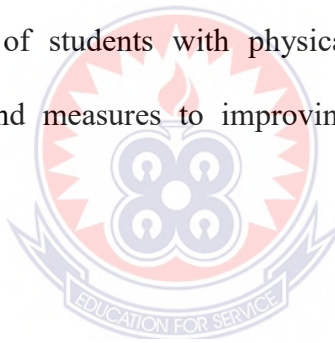
Source: Researcher's Fieldwork Data (2021)

From Table 4.7, shows that, 4 (36.4%) participants had a muscular dystrophy, 2 (18.2%) had spinal cord injury. Another 4 (36.4%) had multiple sclerosis. From the data in the table, it can be concluded that, the majority of the students involved in the study had muscular dystrophy and multiple sclerosis.

4.2 Results

In the study, A1, A2, A3, A4 stand for students with physical disabilities in Asikuma SHS; B1, B2 stand for students with physical disabilities in Brakwa SHS whiles O1 represents a student in Odoben SHS. Asikuma SHS were eight. However, two participants from Brakwa SHS and the one participant from Odoben SHS were available for the final interview. Making a total number of eleven participants for the interview to. These included eight participants from Asikuma SHS, two participants also from Brakwa SHS and one participant from Odoben SHS.

The data were analyzed to reflect the following themes: Academic experiences of students with physical disabilities; social experiences of students with physical disabilities; experiences of students with physical disabilities in relation to the physical environment; and measures to improving experiences for students with physical disabilities.



4.3 Theme One

4.3.1 Academic experiences of students with physical disabilities

To answer research question one, the interview data collected were used.

The following sub-themes also emerged during the interviews. These were: teacher's teaching methods; availability of teaching and learning materials; availability and easy access to the library services and flexible curriculum.

4.3.2 Teacher's teaching methods

One of the issues that emerged during the interview about the academic experiences of students with physical disabilities was the methods teachers used in teaching. The following verbatim statement were made:

“Teachers always give me the opportunity to express my opinions and my opinions are taken into account” (Student A1).

Another student also said:

“The teachers provide me the opportunity to demonstrate and express what I know about the subject matter” (Student A2).

Another student has these to say:

“Teachers encourage and allow for my open communication and listen to my suggestions about how to complete an activity” (Student A3).

The statements from the students with physical disabilities show that teachers used student cultural approach in their teaching. As stated by the students with physical disabilities, teachers provide them with the opportunity to express their opinions, to demonstrate and express what they know and also they are encouraged and allowed for offer suggestions.

The following verbal statements were also made in relation to the methods of teaching used by the teachers;

“I am involved in group discussions that lead to group collaboration and problem solving” (Student A4).

“Teachers stimulate my interest by integrating topics such as famous people with physical disabilities to build my confidence” (Student B1)

“My teachers give me plenty alternatives to take part in tasks that I find specially challenging” (Student B2).

The statements from the students with physical disabilities indicate that teachers used student-group discussions, stimulation of interests by integrating topics of famous

people with physical disabilities to build student confidence and also the teachers give the students the alternatives to adapt to challenging task.

In relation to the providing alternative tasks, student O1 said;

“My teachers because of me lessen the amount of writing require of students in order to help me manage my fatigue”

4.3.3 Availability and accessibility of teaching and learning materials

One of the issues that also emerged during the interviews of the students with physical disabilities had to do with the availability of teaching and learning materials. The students with physical disabilities made these verbatim statements:

“The only teaching and learning materials available are the ones being used by all the students. There are no specialized teaching and learning materials for me as student with physical disability” (Student O1)

“Since I have been admitted to the school, I am yet to see any physical disability friendly teaching and learning materials. I rely solely on what every other student uses” (Student A3)

Another student also said this;

“My school is yet to provide technological teaching and learning materials that purposely used by students with physical disabilities” (Student B2).

Another student indicated that:

“I only use the normal teaching and learning materials that every other student is supposed to use. No digital teaching and learning resources or worksheets that can help lessen the amount of writing that I do” (Student A1).

Further verbatim statements emerged:

“I wish I had a specialized laptop or desktop computer or iPad for my classwork and studies but there are no such advanced resources for students with physical disabilities in the school yet” (Student A2).

“The school does not have for example adapted furniture to offer comfort for me as student having a physical disability. Because of that I have to sit in my wheelchair during class hours” (Student B1).

“The computers at the lab are not functioning well so when it is time for ICT, the class has to be shifted for the computers to be fixed. The computers are not adapted for use by students with physical disabilities” (Student A4).

The statements from the students with physical disabilities show clearly that instructional materials specific to teaching and learning for student with physical disabilities are generally not available and accessible. It shows that students with physical disabilities in the three schools under study in this research are not well catered for educationally in Asikuma-Odoben-Brakwa, Ghana.

4.3.4 Availability and easy access to library services

One of the issues that came up from the interviews of students with physical disabilities was on availability and easy access to library services. The purpose was to find out from the interviewees whether library services were available and easy to access.

One student said:

“Yes the library services are available and because in my school the library is situated on the ground floor, it is easy for me to access. So I do not have too much difficulty accessing the library” (Student O1).

Meaning that, this student could easily access the library, other students expressed a contrary view. Below are the verbatim statement of some students that suggested their difficulty in accessing the library.

“There is a newly built library but accessing it is a bit of problem because I use a wheelchair. I have to sometimes ask my friends to assist me into the library because it is located on the second floor”
(Student A2)

“Library is available in my school. I visit the library often because I like to read. Access to the library is difficult for me because it is located on the first floor and with my crutches I can hard access it”
(Student B1)

“My school has a library and can but not easily accessible. Because it is not located on the first floor. I am able to use my crutches to access it. I go to the library every time there is break even though I have serious difficulty using the library” (Student B2)

These comments were also made in relation to issues the students have with the library.

“The library is there but the problem is that the library is not environment friendly in the sense that it is not spacious enough to seat comfortably. As a student with physical disability, I would have loved that inside the library should have enough apace so that I can feel comfortable to seat and learn” (Student A3).

From the statements as gathered, all the students from the three schools mentioned that their schools have libraries. As shown from the various comments some of the students do not face any difficulties accessing the library while some of the students do encounter difficulties in accessing the library. Some of the students as shown in their statement face difficulties because the location of the library was on either the first floor or the second floor while another student also raised the issue that even

though there is a library, there is not enough space to offer comfort for a student with physical disability.

“Even though my school has a library, the difficulty for me as a student with physical disability has to do with the arrangement of the materials in the library. All the time I go to the library it takes me a longer time to get access to the material because I have to walk round for so many minutes and it gets me really tired” (Verbatim expression by a student A4)

“The library is available in the school. The only problem is that there are no specialized materials for students with physical disabilities in the library. There is a problem with space and I have to struggle with my crutches before I am able to seat down to study” (Student A1).

The statements from the students with physical disabilities again highlight the problems associated with easy accessing library services on campus. The students mentioned the problem of space in the library and also lack of specialized materials in the library for students with physical disabilities to use.

4.3.5 Flexible curriculum

Flexible curriculum was one of the emerging themes that came up during the interviews for students with physical disabilities. Students with physical disabilities were asked to share their experiences in relation to how the curriculum is made flexible to accommodate them in the school environment. Based on the outcomes, the following experiences were shared:

“The teachers try to modify their teaching methods to lessen the amount of writing on the board. This is done to help me minimize tiredness during teaching and learning periods” (Student B1).

“My teachers adapt their lessons and sometimes introduce alternative options to enable me demonstrate what they know I can do” (Student O1).

Others students also said these:

“I am given time to get to know and be comfortable in the classroom environment” (Student A4)

“Teachers consider giving me time out or they make it okay for me to rest when I need to in order to prevent excessive fatigue before lessons start after break is over” (Student A3).

From the data gathered, almost all the students with physical disabilities interviewed admitted that teachers make adaptations in the curriculum to accommodate them in the classroom environment. The modification teachers make in their curriculum were listed to include that of minimizing writing on the board, giving alternative opportunities for students to demonstrate what they can do, allocating extra time for students to get to know and to feel comfortable, and also teachers giving time out for students with physical disabilities to have enough rest to minimize fatigue before lessons are conducted.

Below are other verbal statements from the students:

“The teachers in my school always take into consideration my interest and movement when planning classroom activities” (Student A1).

“Teachers make allowances for the time it takes me to move around the school” (Student B2).

It is again evident from the students’ statements that teachers in the three schools take into consideration the learning needs of the students with physical disabilities by way

of adjusting and modifying curriculum to accommodate the individual learning needs in the classroom and the school environment.

On academic experiences, students with physical disabilities described their experiences in relation to the methods of teaching by teachers, availability of teaching and learning materials, accessibility of teaching and learning materials, availability and easy access to the library, and flexible curriculum. The transcription from the students revealed that all the students described the teachers teaching methods as favorable.

A student for instance remarked that:

I am involved in group discussions that lead to group collaboration and problem solving. (Student A2).

Another student with physical disabilities with reference to teachers teaching methods disclosed that teachers stimulate interest by integrating topics such as famous people with disabilities to build confidence. These disclosures were in the statements that most of all the students made.

A student also disclosed in the interview that:

My teachers give me plenty alternatives to take part in tasks that I find specially challenging. (Student A4).

These statements from the students with physical disabilities showed that teachers are using reasonable accommodation means to accommodate divergent abilities in their classrooms.

Also on academic experiences, students with physical disabilities talked about the nature of availability and access to teaching and learning materials in the schools. The

findings suggest that students with physical disabilities bemoaned lack of specialized teaching and learning materials in the schools.

Student O1 for example remarked that:

Since I have been admitted to the school, I am yet to see any physical disability friendly teaching and learning material. I rely solely on what every other student uses.

Another student also noted that the school is yet to provide technological teaching and learning materials that purposely serve the special needs of the student with physical disabilities.

This was what another student said:

I only use the normal teaching and learning materials that every other student is supposed to use. No digital teaching and learning materials resources or worksheets that can help lessen the amount of writing that I do. (Student A4).

The findings from the students show that even though there is availability and access to teaching and learning material for their studies, the problem was the unfriendly nature of those resources. The students noted that they would prefer specialized teaching and learning materials that meet their special academic needs.

A particular student stated in clear terms that:

I wish I had a specialized laptop or desktop computer or iPad for my classwork and studies but there are no such advanced resources for students with physical disabilities in the school. (Student O1).

The rest of the students interviewed revealed their difficulties accessing library facilities as a result of location. The following comments were made by the students:

There is a newly built library but accessing it is a bit of problem because I use a wheelchair. I have to sometimes ask my friends to assist me into the library because it is located on the second floor. (Student A2)

“Library is available in my school. I visit the library but not often because access to the library is difficult for me. It is located on the first floor and with my crutches I can hardly access it. (Student B1)

These findings go to confirm a study by Kabuta (2014) in Tanzania. The study gathered that students with physical disabilities had challenges in accessing library and that the major obstacle was the poor infrastructure leading to the library facility that is stairs to the libraries were unfriendly to students because students could not climb due to their conditions (p. 56). The last issue that emerged regarding academic experiences was whether the curriculum used by teachers was flexible enough to address the special learning needs of the students with physical disabilities. As it was found out from the student interviewed, the curriculum is flexible and promotes inclusion of students with physical disabilities. Some transcribed comments by the students:

The teachers in my school always take into consideration my interest and movement when planning classroom activities.

The teachers try to modify their teaching lessons to lessen the amount of writing on the board. This is done to help me minimize tiredness during teaching and learning periods.

My teachers adapt their lessons and sometimes introduce alternative options to enable me demonstrate what they know I can do.

The data transcribed indicate that teachers take into consideration the interest of the student before lessons are planned. It is also evident that teachers try to modify their

teaching lessons by lessening writing on the board to help the student to minimize fatigue that would have come about by note writing from the board. Also, it was revealed that teachers adapt their lessons and sometimes introduce alternative options to enable the student to demonstrate what they know the student can do. Flexible approaches to curriculum in the school are needed to address the different abilities and needs of every learner because as revealed by UNESCO (2009), where curricula and teaching methods are rigid students with disabilities can be at risk of exclusion. The flexibility in the curriculum is paramount because instructional methods, examination systems and rigid curriculum are some of the barriers to implementation of inclusive education schools in many countries including Ghana. The findings are consistent with the Social Model of Disability which indicate that it is society which disables people with impairment and therefore any meaningful solution must be directed at societal change rather than individual adjustment and rehabilitation. This means that for students with disabilities to achieve their educational potentials, restrictions which impede must be removed and the necessary accommodations made to the needs of students with disabilities.

4.3.6 Summary of findings on research question 1

The findings highlight how teachers adapt and modify their teaching methods to meet the needs of the students. It also shows how available and accessible students find teaching and learning materials. Again, the findings revealed the nature of library facilities and the experiences of students in accessing it. The findings again disclosed the flexibility nature of the school's curriculum to meet the diverse needs of the students.

4.4 Theme Two

4.4.1 Social experiences of students with physical disabilities

To answer research question, 2 the interview data collected were used.

The issues that came up during the interviews with students in relation to social experiences in the school environment included the attitudes of teachers and non-disabled students, friendship and interaction with teachers, friendship and interaction with non-disabled students, participation in school activities, and labeling.

4.4.2 Attitudes of teachers and non-disabled students

Under the attitudes of teachers and non-disabled students towards students with physical disabilities in the school environment, the following emerged.

“The attitudes of teachers and my colleagues are positive in the sense that they are friendly and support me whenever I need help from them. They do not look down on me because I am disabled” (student O1).

“My teachers and other students treat me well both in the classroom and outside. Anytime I need assistance from any of them in relation to assignment they gladly offer their help. So I will say that both teachers and my colleague student have good attitude toward me” (student A1).

“I have a few classmates but they are very good to me anytime I come into contact with them. Sometimes they provide for me when I am in need of some snacks” (student A3).

“Some of the teachers’ attitudes are not encouraging. At times they see me as vulnerable, as if I cannot do anything good without a help. Like when I want to go home during vacation, and I fell very bad” (student A2).

Other statements made by the students:

“Teachers and other non-disabled students relate to me very well. Some of the colleague students even assist me to walk to the library and the canteen during break periods. Some also buy me food at break periods. Also the teachers are helpful and always encourage me to study hard” (student B2).

“I have not experienced any negative attitude from my teachers or other students. My relationship with teachers and other students is good. I have friends among teachers who I do visit during break time” (student B1).

“I used to experience bad behavior from some of the teachers and fellow students but for now it is okay. First, fellow students were afraid to talk or associate with me due to my condition and also some of the teachers used to pass negative comments about me in class when I want to ask questions” (student A4)

On the attitudes of teachers and non-disabled students, students with physical disabilities interviewed indicated that both teachers and students show positive attitude towards them. A student revealed during the interview session that neither teachers nor students showed negative attitude. Also, another student noted that before there used to be bad behavior from some of the teachers and fellow students however those bad behaviors no more exist. Again, two students narrated that:

The attitudes of teachers and my colleagues are positive in the sense that they are friendly and support me whenever I need help from them. They do not look down on me because I am disabled. (B1)

My teachers and other students treat me well both in the classroom and outside. Anytime I need assistance from any of them in relation to assignment they gladly offer their help. So I will say that both teachers and my colleague student have good attitude toward me.(student O1)

Notwithstanding the majority of students receiving positive attitudes both from teachers and students, two students with physical disabilities interviewed narrated their own experiences with both the teachers and students:

I have a few classmates that behave rudely towards me anytime I come into contact with them. Sometimes they are even reluctant to pass a particular area I also pass. They say that I will contaminate them.
(Student A2)

Some of the teachers' attitudes are not encouraging. I one day went to the teachers' staff room to have a conversation with one of my teachers but to my surprise one the teachers said that the place was not meant for people like me and I felt very bad. (Student A3)

4.4.3 Relationship and interaction with teachers

Students with physical disabilities also revealed in the interviews, their relationship and interaction with teachers in the school environment. The following emerged:

"The teacher-student relationship is always there but getting to interact with them only happens during class hours and not always"
(student A1).

"I have a good relationship with my teachers but having the opportunity to interact with them only occur in the classroom" (student A4).

"I do not often interact with my teachers unless when teaching is ongoing and I have to ask a question or want clarification on a topic"
(student B2).

The statements from the students with physical disabilities indicate that even though there exist good relationships between teachers and the students, there is limited

interaction with teachers which only occurs in the classroom when teaching is ongoing.

Further comments made were:

“I have a personal relationship with most of my teachers. My relationship with most of my teachers gives me confidence because I am able to interact with them on any academic issues and I seek advice from them when necessary” (student B1).

“I have good relationship with my all my teachers that teach me. Due to the relationship with them I am always approaching them for direction and guidance in my studies” (student O1).

“The only teacher I have good relationship with my science teacher, who I often interact with after class hours” (student A3).

The information from the interviews show that good relationships exist between teachers and students which in turn foster interaction with their teachers. It also shows that good relationship and interaction with teachers gives students with physical disabilities the confidence to seek for advice, guidance and direction from their teachers for their academic activities.

4.4.4 Friendship and interaction with non-disabled students

Under this theme, students with physical disabilities narrated the relationship that exists between them and students without disabilities. Majority of the comments were reported positive while only a few comments came up negative. These were the comments made:

“I am glad to say that I have a very good friendship with my colleagues without disabilities. I have enjoyed support from them both in and outside school. I get calls from most of them during vacation

time. Their support in the classroom motivates me to be focused in my studies” (student B2).

“Friendship with other classmates is good. I have friends that I communicate with and who also assist me whenever I need assistance like visiting the canteen during break time and some assist me to the library to study during break time” (student O1)

“My classmates do not show any bad behavior towards me. I relate well with them and they also relate well with me. I have a few friends that I interact with in class and after class. They are my good friends and I study together with them. I receive encouragement from them to work hard” (student A3).

Students with physical disabilities reported good friendship with their colleagues without disabilities. They also indicated the support, assistance and the encouragement students without disabilities give them.

“Not all my classmates are my friends but a few of them. And those that are my friends are supportive when it comes to movement around the school environment. They help me to access books from the library and food from the canteen” (student A4)

“I do not have close friends but I always move with few classmates to the library and the school market at break time. I am someone who is reserved and I find it difficult making friends. Be as it may, I still do interact with my other colleagues without disabilities” (student B1)

“Yes only one student without disability that I am close with and we do interact often in class. I study together with him, move around together and has been helpful in instances where I find it difficult to do certain things at the dormitory” (student A1).

4.4.5 Acceptance

In finding out whether students with physical disabilities are accepted by teachers and their fellow students, the outcomes show that both teachers and fellow students accept them.

“I am accepted by both teachers and fellow students” (student A2).

A student also said:

“In the area of acceptance, everybody in the school accept me including the teaching body, other staff and my colleague students” (student A4).

Another student stated”

“I have been welcome in the school by all. My teachers, fellow students are happy that I am here with. Therefore, I am fully accepted” (student B1).

A comment by another student:

“Since my arrival as student with physical problem, my teachers and other fellow classmates have been supportive of my education with motivation words to encourage me not to give up. So in view of these I can say that they accept me among themselves” (student O1).

“I am accepted except a few” (student A3)

“Acceptance is not a problem for me. Everybody since I enrolled has shown me love and care so I have no need to worry about rejection” (student A1).

“The school authorities including my fellow students have welcomed me to be part of the school system. Not everyone would like you but with what I have seen since I became a student, no one has shown that I am rejected” (student B2).

The comments made by the students regarding their acceptance are encouraging. As noted from the narrations, all the students stated that both teachers and students accept them.

4.4.6 Participation in school activities

Another important issue students with physical disabilities commented on was about their participation in school activities. The findings revealed that majority of the students with physical disabilities do not participate in school activities especially extra-curricular activities. Among the total number of 11 students with physical disabilities interviewed, nine revealed that they had no interest in participating in school activities while only two stated that they had interest and participate in school activities. These are some of the comments from the students interviewed:

“Due to my disability I do not participate in activities that are beyond my physical strength like sports and other physical activities. Also, the environment is not conducive for me and there are specialized equipment to enable me participate” (student A2).

“I do not involve myself in school activities even though personally the interest is there. I like basketball and I enjoy watching my colleague ladies play but due to my condition I cannot play” (student A3).

“I have interest in contesting for girls’ dormitory prefect because I know I have capacity to do the work. I am hoping that my friends will vote for when the time come” (student B2).

The issues that emerged from the interview suggest that one of the students does not participate in school activities because of the disability, and also revealed that the environment is not conducive to permit participation. Another participant also reveals non-involvement in school activities even though the interest to do is there. However,

one of the students narrated that she intends contesting for girls' dormitory prefect which she hopes of winning.

Other students also made these comments:

“I have been taking part in playing volleyball for the male. I stand on my crutches to play. I have been playing since I became a student here. It is not easy but I know nothing is impossible” (student O1).

“I am interested in playing handball for school however the environment is not good for my wheelchair. The ground for the handball is rough which makes my wheelchair immovable” (student A4).

Different issues emerged for of the students. One of the students participates in extra-curricular activities by playing volleyball in the school team. Another student showed interest in playing a handball. However, the student narrated that the physical environment does not support the movement of the wheelchair for such an activity.

4.4.7 Summary of findings on research question 2

The findings reveal the positive attitudes of teachers and students towards students with physical disabilities. It also showcased the level of acceptance of students with physical disabilities by teachers, fellow students and other staff of the schools. Again, it points to the low participation rate of students with physical disabilities in school activities as a result restriction placed by the environment and the personal characteristics of the students.

4.5 Theme Three

4.5.1 Physical environment experiences for students with physical disabilities

To answer research question 3, the interview data collected were used.

The researcher interviewed students with physical disabilities. During the interview, students were asked to narrate their experiences on how accessible and friendly the physical environment was to them. The following were issues that came up;

The school building, toilet facilities, classroom arrangement, movement around the school environment and access to canteen services. The findings show that all the students face physical environmental challenges.

4.5.2 School building

Access to school buildings was an issue that emerged during the interviews. The students with physical disabilities find it difficult accessing the classroom, and these were the comments made;

“I always have difficulty climbing up and down to my classroom and for that reason, I try to limit going out for break time” (student A1).

“The staircases to my classroom are many so sometimes I have to ask for assistance from my other mates to help me to reach the classroom. The coming down has always been a problem. My class is on the second floor so you can imagine it” (student A2).

“As you can see for yourself, my class is at the second floor with high staircases before reaching to my classroom. It has been a major problem for me but there nothing I can do about it” (student A3).

“My classroom used to be at the down floor when I was in the first year. But in the second year, we moved to the second floor so now I

have to struggle a bit before reaching the classroom. My crutches too are old so I always have to minimize pressure on them” (student A4).

The comments by the students demonstrate the difficulties they go through when accessing various school building. The students’ narration points to the fact that their classrooms are located on the second floor of the school buildings which have staircases, and for that reason, they always face difficulties in climbing to their classrooms. Some pointed out that they in some instances had to rely on their mates to assist to help them to the classroom.

Below were other narrations from the students”

“I have my classroom on the ground so with my wheelchair I am able to maneuver safely to my classroom. So I will say that the only problem is the school environment which poses challenges for my wheelchair to move around easily” (student O1).

“I do face challenges with my crutches when I try climbing the staircases to my classroom. My classroom is on the first floor of the school building so before I get there, I have to stop to rest small before I continue climbing due to tiredness” (student B1).

“The school buildings are made up of first and second floors. My classroom is located on the first floor so it becomes somehow difficult when climbing the stairs to get to the classroom because of my condition” (student B2).

The comments by the students illustrate the inherent challenges students with physical disabilities encounter in accessing school buildings. Apart from the single student whose classroom is located on the ground floor of the school building, and has less difficulty getting access to it, the rest of the student lamented the challenges involved when accessing those classrooms. The classrooms as narrated and captured during the

interview are located either on the first or second floor of the school building. For that reason the students struggle to climb to their classrooms.

4.5.3 Toilet facilities

The nature of toilet facilities in the school environment came up during the interview with physical disabilities. The comments made largely indicated that toilet facilities were not friendly in the sense that some were either too low to offer seating comfort, situated in distance from the school environment or not modernized to meet the needs of the students with physical disabilities.

“The toilet facility in my school was constructed too low and because of that bending to seat down is always very difficult for me” (student A4).

“I find it difficult using the school toilet facility due to the manner it was constructed. I have to lean on my crutches for support before I can use it. Anytime I try forcing myself to bend to seat I feel pains in my waist” (student A2).

Other comments made were:

“The type of toilet facility in my school is one that you have to squat before easing yourself. Due to its nature, using it has always been a difficulty. I have no other option than to make use of it” (student B2).

“The location of the school toilet facility is a problem and also the nature of the facility. The facility is the KVIP type that you squat on. Squatting is difficult due to my leg condition” (student B1).

The outcome of the interview showed the difficulties students with physical disabilities face in accessing toilet facilities in the schools. The difficulties as narrated by the student ranges from poor construction, location and unfriendly nature of toilet facilities.

“The toilet facilities were not built to serve my needs since I cannot easily use it. I have to struggle when using it. I think the toilet seat will be better than this one” (Verbatim expression by student A3).

“The toilet facility in the school is the wooden one. Using it is very difficult. I fear using it so I make sure I do not go near it” (Verbatim expression by student O1).

“There is always difficulty using the toilet facility because it is not friendly to my needs as someone with disability” (student A1).

Easy access to toilet facilities in the school environment is seen as a major barrier for students with physical disabilities as indicative of the findings. Students interviewed were not enthused about the location and the nature of the schools toilet facilities. A student revealed that the type of toilet facility in the school is the wooden toilet type; therefore using it has been difficult:

The toilet facility in the school is the wooden one. Using it is very difficult. I fear using it so I make sure I don't go near it. (Student A3)

It is generally evident that the school operates in an unchanged physical environment and educational facilities.

4.5.4 Classroom arrangements

Another critical issue that emerged from the interview with the students with physical disabilities was the nature of how their classrooms were arranged. All the students interviewed said their classrooms were well arranged. These comments were made to that effect:

“The classroom is well arranged and there is enough space for me to pass with my crutches. I also seat comfortably in class without any

difficulty. The spaces between the desks are wide for me to stretch my legs” (student B2).

“The classroom is overcrowded (68 in a class). It makes movement in class very difficult for students” (student A1).

Another student said:

“I have no problems when it comes to classroom arrangement. The desks are well situated with enough spaces to cater for the use of my crutches, so there is no difficulty at all” (student B1).

A student stated:

“The arranging of the desk in the classroom does not pose any problem for me when moving in or out of the classroom. Everything is well arranged” (student A3).

Another said:

“The spaces between each desk in wide so that a wheelchair can even pass through easily so for the classroom arrangement it is well done” (student A4).

“The arrangement of the desks and positioning of the marker board on the wall are all good. I can easily move around the classroom with my device without interruption. Also because the marker board is not highly up but well placed, it does not cause pain in the neck” (student O1).

Another student added”

“Because the classroom is spacious it enables enough ventilation in the classroom. Also every desk is well positioned and spaces are created to allow for easy movement” (student A2).

The statements from the students with physical disabilities show that they face no difficulties moving around in their respective classrooms due to the good

arrangements of the classroom furniture. The students noted that enough spaces are created in the classroom to accommodate for mobility devices. However, one student observed that her classroom is overcrowded with sixty-eight in a class. This according to the student makes movement in the class difficult. Well-arranged classrooms with barrier-free access is seen to foster free movement of students with disabilities between desks or tables and to the general areas of the school.

4.5.5 Summary of findings on research question 3

The findings revealed the challenges students face in accessing school buildings as a result climbing more stairs before accessing their classrooms. Toilet facilities as noted are not being accessible due to their unfriendly nature. The findings also showed that students were happy about the classroom arrangements which allowed for spaces for easy movement.

4.6 Theme Four

4.6.1 Improving experience for students with physical disabilities

To answer this question, the interview data collected were used.

The researcher sought to find out the views of the students on what can be done to improve their experiences in the schools. The views shared by the students are captured below:

“In my opinion, the school management can take a decision to move classrooms that have students with physical disabilities to the down floor, so that the struggles that come with climbing too many staircases can be eliminated” (student B2).

“I want the school management to consider relocating library to the ground floor for easy access to students with physical disabilities. Also, it will be good for management to expand and create more spaces so that wheelchairs can have access in the library” (student O1).

“The school needs up-to-date text books in the library. School authorities should put in effort to replace old text books with current ones” (students A3)

“The current state of the toilet facilities needs to be improved and modernized. For example, the school should construct toilets with water closets rather than the one without water closets” (student A4).

Comments made, a student with physical disabilities suggested that school management should relocate classroom that students with physical disabilities to the ground floor to help ease the struggles that come with the climbing of staircases. Also, one student suggested that management should consider relocating the library to the ground floor for easy access and that more spaces should be created for accommodation for wheelchairs users. Again, a student suggested that the school needs up-to-date text books in the library and for that reason, old text books should be changed for current ones. For another student, the current state of the toilet facility is not in the best shape so authorities of the school should introduce modern toilet facilities such as the water closet.

“My class is overcrowded so I would be happy if management can re-look at it so that the class is moved to a bigger classroom. Also, in future, I want the school authorities to expand infrastructure so that the school can have more classrooms to accommodate more students to reduce overcrowding in class” (student A1).

“The computers in the school should be worked on for ready use at all times. Also, new computers should be considered and to made usable for both students with and without disabilities” (student A2).

*“I would suggest that teachers be provided projectors for teaching rather than the old ways of writing with markers on the board. Teachers should engage students with disabilities more for them to understand their needs **better**”* (student B1).

4.6.2 Summary of findings on research question 4

Theme four gives the students with physical disabilities the opportunity to suggest ways of improving on their experiences. The findings show that student with physical disabilities want classrooms that include students with physical disabilities and library facilities on either first or second floors to be relocated to the ground floor for easy accessibility. The students again suggested that more facilities should be built and more resources and materials provided. Finally, the students called for proper and modernized toilet facilities for the convenience.

4.6.2. Discussion of Results

The discussion of the various data was guided by the various research questions delineated in chapter one. These research questions are; what academic experiences do students with physical disabilities have in the Asikuma-Odoben-Brakwa mainstream Senior High Schools, What social experiences do students with physical disabilities have in the school, What experiences so students with physical disabilities have in relation to the physical environment in the school, and What views do students with physical disabilities have on the measures for improving their experiences in the school.

Research Q 1: What academic experiences do students with physical disabilities have in the Asikuma-Odoben-Brakwa mainstream Senior High School?

The findings from the students agree with Oliver's (1996) assertion that education system has failed learners with special needs by not equipping them with appropriate teaching and learning materials to exercise their rights and responsibilities as citizens. Okongo et al. (2015) noted that the successful inclusion of students with special needs need to be accompanied by providing specialized teaching and learning materials resources including textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder are needed to make inclusive education functional. Availability and easy access to library facilities also came up. Students with physical disabilities highlighted the issues as pertain to their schools. As revealed from the interview with the students, availability of library facilities was not in doubt rather the difficulty was easy access. A student who has the library facility located on the ground floor faces no access problem:

Yes the library services are available and because in my school the library is situated on the ground floor, it is easy for me to access. So I do not have too much difficulty accessing the library.

This findings clearly goes contrary to the study of Kabuta (2014) in Tanzania, who found out during the study that students were unable to access library facilities due to poor infrastructure with stairs to the library were unfriendly to students because students could not climb due to their conditions. The last issue that emerged regarding academic experiences was whether the curriculum used by teachers was flexible enough to address the special learning needs of the students with physical disabilities.

As it was found out from the student interviewed, the curriculum is flexible and promotes inclusion of students with physical disabilities. Some transcribed comments by the students:

The teachers in my school always take into consideration my interest and movement when planning classroom activities.

The teachers try to modify their teaching lessons to lessen the amount of writing on the board. This is done to help me minimize tiredness during teaching and learning periods.

The teachers adapt their lessons and sometimes introduce alternative options to enable me demonstrate what they know I can do.

The data transcribed indicate that teachers take into consideration the interest of the student before lessons are planned. It is also evident that teachers try to modify their teaching lessons by lessening writing on the board to help the student to minimize fatigue that would have come about by note writing from the board. Also, it was revealed that teachers adapt their lessons and sometimes introduce alternative options to enable the student to demonstrate what they know the student can do. Flexible approaches to curriculum in the school are needed to address the different abilities and needs of every learner because as revealed by UNESCO (2009), where curricula and teaching methods are rigid students with disabilities can be at risk of exclusion. The flexible in the curriculum is paramount because instructional methods, examination systems and rigid curriculum are some of the barriers to implementation of inclusive education schools in many countries including Ghana. The findings are consistent

with the Social Model of Disability which indicate that it is society which disables people with impairment and therefore any meaningful solution must be directed at societal changes rather than individual adjustment and rehabilitation. This means that for students with disabilities to achieve their educational potentials, restrictions which impede much be removed and the necessary accommodations made to the needs of students with disabilities.

Research Question 2: what social experiences do students with physical disabilities have in school?

The findings of the study revealed that when students with physical disabilities are educated in mainstream environment, a series of benefits can occur, which may include friendship, increased social initiations, relationships and networks. Negative attitudes from teachers, school administrators, and other students have been documented as barriers that affect the inclusion of students with disabilities in mainstream schools.

I have a few classmates that behave rudely towards me anytime I come into contact with them. Sometimes they are even reluctant to pass a particular area I also pass. They say that I will contaminate them.

Some of the teachers' attitudes are not encouraging. I one day went to the teachers' staff room to have a conversation with one of my teachers but to my surprise one of the teachers said that the place was not meant for people like me and I felt very bad.

The comments as highlighted above are consistent with the study findings by Andrade and Fukuda 2016. The findings show that students with disabilities in inclusive schools are shown little acceptance and high level of rejection, and that there is a forming of defensive groups and strong rejection because of their personal characteristics (Andrade & Fukuda, 2016). This was clearly shown in the present study where a student with disabilities reported that few of their classmates have shown rude attitudes by refusing to use the same route used by the student. The second student also reported an incident where a teacher passed unsavory comment to the effect that the teachers' staff room was not meant for people with disabilities.

With their relationship and interaction with teachers, the findings clearly contradict the study by Andrade and Fukuda (2016) which found out that student with disabilities in inclusive schools happen to be rejected because of the personal characteristics.

As with adolescents, going through the social context of senior high school education can be a formidable undertaking for students with physical disabilities. For many of these students, social connections with peers will remain difficult unless from structured efforts by school staff (Shattuck et al., 2011). As a consequence, friendship becomes an important aspect of inclusion, as some studies have shown that physical inclusion does not necessarily lead to social inclusion because students' experiences are shaped by the values, beliefs, and custom of the education system, staff and students (Morrison & Burgman, 2009). As the findings show, students with physical disabilities have good friendship and interaction with their non-disabled counterparts. Friendship between students with physical disabilities and their counterparts not only result in interaction but fosters togetherness, bring about support, confidence and

encouragement to students with physical disabilities. Also, the fact that students without disabilities embracing friendship of students with physical disabilities would go a long to foster social inclusion rather than “social exclusion” as noted by Andrade and Fukuda (2016). Again, when students with physical disabilities are educated in mainstream environments, a series of benefits can result, which include friendship.

On the acceptance of student with physical disabilities, all the students stated that both teachers and students accept them. These findings of acceptance of students with physical disabilities in mainstream environment by both teachers and students ran contrary to other views that students with disabilities in inclusive classroom have been shown little acceptance and high level of rejection (Andrade & Fukuda, 2016). The current findings again are at variance with a study by de Beor et al. (2013) which revealed that students with disabilities experience difficulty in being accepted by peers. The unwillingness by teachers in particular to accept students with disabilities have been found to be linked with teachers not having the needed capacity to teach in inclusive classrooms. For example, evidence from various countries point out that teachers generally are in favor of inclusion on theory, however only a handful were willing to accept students with disabilities in their classroom (Cardona, 2000). A study carried in Ghana by Agbenyega, revealed that teachers make complaints about including students with disabilities in mainstream classrooms by stating that, they need the support of principals, authorities and specialists in the school to help them educate students with disabilities (Agbenyega, 2007). It is also imperative to point out that lacking the necessary infrastructure, resources and facilities could trigger teachers to develop negative attitudes towards accepting students with disabilities towards the implementation of the inclusion policy. On the non-participation in school activities

by students due to the unfriendly nature of the school environment reinforces the argument by the Social Model of Disability that:

'is all the things that impose restrictions on disabled people; ranging from individual prejudices to institutional discrimination, from inaccessible public building to unusable transport systems, from segregated education to excluding work arrangements, and so on'
(Oliver, 1996, p.33).

Research Question 3: what experiences do students with physical disabilities have in relation to the physical environment in the schools?

Analysis of the physical environment of the school, the findings agree with Francis et al (2018) that in Ghana, the physical environment of most schools implementing inclusive education seems to be user-friendly mostly for students without disabilities, and the architectural design and physical layout of most buildings are still tailored to fit and fix students without disabilities. In light of this and for students with physical and mobility disabilities and other sensory disability especially, inclusive education schools should avoid architectural elements such as flight of stairs to rooms and slippery outdoor surfaces, as well as heavy doors and narrow doorways (Winter & O'Raw, 2010), which may induce fatigue and exclusion or minimize use of facilities.

The findings indicates a seemly lack of adaptation and modification of the physical environment, including architectural designs and facilities to meet the needs of the student with physical disabilities in the area of toilet facilities in the schools. The comments by students with physical disabilities agree with Lewis and Doorlag (2006) who noted that in a well-planned inclusive education classrooms, there should be an

effective seating arrangement and spacing where instructional materials are placed within the reach of all children, and adequate storage spaces are also created for special equipment such as magnifying devices, crutches and adaptive keyboards for computers. Furthermore, bookshelves and bulletin boards are also conveniently located to facilitate their use by students with disabilities. Again, there should be adequate spaces in the general area of the school to accommodate all students, for example; classrooms, hallways, exits and washrooms. The findings also supported the arguments made by the activists of the social model of disability, which agree that it is society which disables people with impairment and therefore any meaningful solution must be directed at societal change rather than individual adjustment and rehabilitation (Barnes et al, 2010, p. 163).

Research Question 4: what views do students with physical disabilities have on the measures for improving their experiences in the school?

The suggestions from the students were that school management needs to expand infrastructure to reduce overcrowding in the classrooms. Also, school authorities should procure more computers and the old one repaired. Finally, it was suggested that teachers be provided with projectors for teaching rather than using markers to write on the boards. The suggestions by the students for more infrastructure, resources, materials and facilities is in agreement with Obeng-Asamoah's call that providing more school facilities would help encourage more children to be in school because lack of facilities serve as common barrier for many children who find themselves out of school (Obeng-Asamoah, 2014). Also, Alhassan (2014) recognized that creating more opportunities by building more facilities encourages more students to remain in school and it provides teachers with what to develop positive attitudes

towards students with disabilities. Furthermore, providing more facilities would help to reduce the large class-size syndrome that makes teachers unable to meet the needs of every student in the crowded classroom, as teachers would now be able to have ample time to focus on each student especially those with special needs (Ofori, 2018). The suggestions by students with physical disabilities on improving their experience are consistent with the Social Model of Disability. This is so because unlike the medical model of disability which focuses on the person with disability as the main problem, the social model thus places the onus of responsibility on the restrictions imposed by the construction of the environment and attitudes of institutions and organizations (Johnstone, 1998).



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This is the last chapter of the study. Which presents the summary, conclusion recommendations and suggestions for further study, the summary of the study focused on experiences of students with physical disabilities in mainstream Senior High Schools in Asikuma-Odoben-Brakwa District, Ghana. The same research questions were raised to guide the study (see page 9).

The study used a phenomenological study research design, with semi-structured interview guide for data collection. The population of the study was 11 students with physical disabilities with 11 participating in the interviews. The census method was used to sample all the participants for the study due to the small number of the population.

5.1 Summary of Major Findings

The following are the major findings for the study:

In terms of experiences on teachers teaching methods and flexibility of the curriculum, the study showed that teachers adapted and modified their teaching methods and curriculum to accommodate the needs of the students with physical disabilities. Also, availability and easy access to library, teaching and learning material have not been properly addressed by the schools to meet the needs of students with physical disabilities due to unfriendly nature of those facilities and materials.

With respect to teachers and students attitudes towards the students with physical disabilities, the study revealed that positive attitudes were shown. There had been friendship and cordial interactions among teachers, students and students with physical disabilities. However, the findings showed that participation in school activities by students with physical disabilities were not encouraging due to lack of interest or the unfriendly nature of the school environment.

School facilities such as school buildings and toilet facilities were found not to be easily accessible by the students with physical disabilities. Those facilities were either unfriendly due to poor construction or too many stairs. On the contrary, classroom arrangement was found to be friendly as revealed by the participants.

Lastly, on the issue about suggestions by the students to improving their experiences, it was proposed that school management need to relocate library facilities to the ground floor for students to be able to access it easily. Also that, school authorities need to provide disability friendly teaching and learning material by equipping the schools with technological tools and materials for easy use. The students also proposed modernization of existing toilet facilities in order for them to become user friendly.

5.2 Conclusion

The study concluded that the experiences of students with physical disabilities in the school understudy may be described as challenging because accessing the library facilities, physical environment, building, and places of convenient were not without difficulties. The participants' type of impairments, in the light of an inaccessible secondary school built environment required appropriate interventions. This was

necessary for the participants to be enjoy their fundamental human right to education as would any other student.

5.3 Recommendations

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

1. Reasonable accommodation like specialized computer, pen grip or holder, prosthesis device and others are needed to make necessary and appropriate modification and adjustments, where needed in a particular case, to ensure students with physical disabilities enjoyment or exercise of all human rights and fundamental freedoms in the school environment.
2. Physical environment such as open gutters and deep potholes should be covered by the school Authorities to make movement of wheelchairs easy for students who use them.
3. Since academic performance is associated with quality access to learning materials, the school Authorities should appeal to the government and other stakeholders to ensure library facilities have been made evenly accessible so that students with physical disabilities do not find them difficult to access especially those located at first and second floors of the buildings. .
4. Students with disabilities should be empowered, encouraged by the school and the enabling environment created for them to participate more in school activities such as sport.

5.4 Suggestion for Further Study

Due to the small sample size for the study, it would be difficult to state that the findings are the true reflections on what pertains to the schools. As a consequence,

further research would be necessary to investigate experiences of students with physical disabilities in other schools as a whole. Again, it would be appreciative if subsequent researches of this nature will be tailored to other aspects of disability. Finally, the researcher would be glad if another research is carried out to explore the benefits of educating students with physical disabilities in mainstream senior high school.



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APPENDICES

APPENDIX A

LETTER OF INTRODUCTION



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13th August, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF INTRODUCTION: MS. GLORIA AMA AKYERE NYARKO

I write to introduce to you, **Ms. Gloria Ama Akyere Nyarko** an M.Phil. Student of the Department of Special Education with index number **200027479**.

She is currently working on her thesis on the topic: **"Experiences of Students with Physical Disabilities in Mainstream Senior High School in the Asikuma-Odoben-Brakwa District, Ghana."** She needs to use semi structural interview.

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

Thank you for the consideration and assistance.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Joyce'.

MRS. JOYCE O. M. TSATSU
for: (Ag. Head of Department)

UNIVERSITY OF EDUCATION, WINNEBA
DEPARTMENT OF SPECIAL EDUCATION
UEW



APPENDIX B

INTERVIEW GUIDE FOR STUDENTS WITH PHYSICAL DISABILITIES IN MAINSTREAM ASIKUMA-ODOBEN-BRAKWA SENIOR HIGH SCHOOLS

UNIVERSITY OF EDUCATION, WINNEBA
DEPARTMENT OF SPECIAL EDUCATION

TOPIC: EXPERIENCES OF STUDENTS WITH PHYSICAL DISABILITIES
IN MAINSTREAM SENIOR HIGH SCHOOLS IN THE ASIKUMA-ODOBEN-
BRAKWA DISTRICT, GHANA

PART ONE

BIO-DATA OF PARTICIPANTS

1. Age.....
2. Gender.....
3. Academic status:
 - a) SHS 1 [] b) SHS 2 [] c) SHS 3 []
4. Courses offered
 - a) General Arts [] b) Visual Arts [] c) Science []
 - d) Agriculture [] e) Vocational Skills [] f) Business [] g) Other []
5. Type of mobility device student use
 - a) Wheelchair [] b) Crutches [] c) Walking stick []
 - e) Walkers/walking frames [] f) Scooter [] g) Orthoses/prostheses []
6. Cause of disability
 - a) Motor accident [] b) Congenital disability [] c) Diabetes Mellitus []
 - d) Domestic accident [] e) other []

PART TWO

ONE-ON-ONE INTERVIEW

1. Academic experiences for students with physical disabilities

How would you describe your academic experience in the school in relation to the following?

- a. Teachers teaching methods?
- b. Availability of teaching and learning materials that meet your learning needs?
- c. Availability and easy access to library facility?
- d. Flexible curriculum that accommodates your learning needs?

2. Social experiences for students with physical disabilities

How would you describe your social experience in the school environment based on these items?

- a. Teachers' attitudes towards you?
- b. Teachers' interaction with you?
- c. Students' attitudes and interaction towards you?
- d. Friendship with teachers and students?
- e. Participation in extracurricular activities?

3. Physical environment experiences for students with physical disabilities

Please describe with me your experiences in relation to how accessible and friendly your school facilities are to your education based on the following line items:

- a. School buildings?
- b. Toilet facilities?
- c. Classroom arrangements that promote easy movement in and around?

4. Improving the experiences for students with physical disabilities

Based on all your stated experiences, what are some of the things you would want the school authorities to do to improve upon those experiences? For example:

- a. Academic experiences?
- b. Social experiences?
- c. Physical environment experiences?

