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EXPERIENCES OF STUDENTS WITH ORTHOPAEDIC IMPAIRMENTS IN INCLUSIVE SCHOOLS AT SEKYERE SOUTH DISTRICT OF ASHANTI REGION
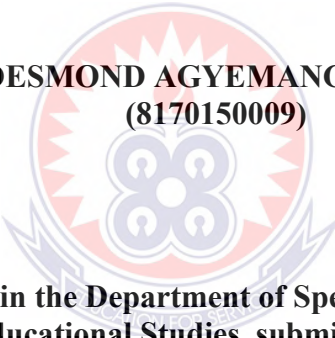
DESMOND AGYEMANG DUAH

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EXPERIENCES OF STUDENTS WITH ORTHOPAEDIC IMPAIRMENTS IN INCLUSIVE SCHOOLS AT SEKYERE SOUTH DISTRICT OF ASHANTI REGION

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Master of Philosophy
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In the University of Education, Winneba

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DECLARATION

Student's Declaration

I, Desmond Agyemang Duahdeclare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my original work and not been submitted either in part or whole, for another degree elsewhere.

Signature: …………………………………
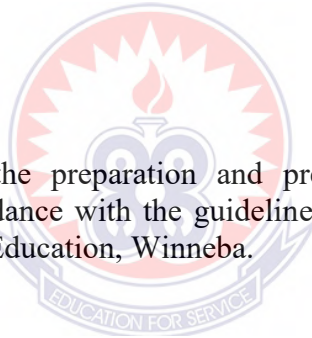
Date: ……………………………….…………

Supervisor's Declaration

We hereby declare that the preparation and presentation of this research was supervised by me in accordance with the guidelines for supervision of research laid down by the University of Education, Winneba.

Supervisor's Name: Dr. Samuel Kwasi Amoako-Gyimah

Signature: …………………………….…………

Date: …………………………….……………….…

DEDICATION

This work is dedicated to God, my friend and son Adu Acheampong Ernest, my family, and the leadership of my church (Living Temple- I. C. G. C) for their encouragement and support during the course of my studies.
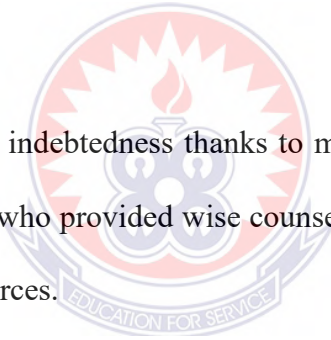
ACKNOWLEDGEMENTS

The work of this nature could not be attributed to the sole effort of one person. Many individuals in various ways have made invaluable contributions to this study from the time of its inception to its conclusion.

My heartfelt gratitude is expressed, particularly to my supervisor Dr. Samuel Kwasi Amoako-Gyimah (PhD), who in spite of his busy schedule worked tirelessly to see me through the completion of this work.

I am equally grateful to Dr. Awini Adam (lecturer, Department of Special Education, UEW) and my mate and friend Mr. Yakubu Maliki student of Master of Education in Sped 2017-2018, UEW, for their advice, suggestions and contributions towards the study.

I also wish to express my indebtedness thanks to my family members especially my wife, mother and siblings who provided wise counselling as well as made available to me all their valuable resources.

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ABSTRACT

This study explored the experiences of students with orthopedic impairments in inclusive schools at Sekyere South of the Ashanti Region. Four research objectives which guided the study. The study used a qualitative research methodology to examine the experiences of students with physical disabilities at a few basic schools in Ghana's Sekyere South District. The study used a phenomenological research design. Twelve students with orthopaedic impairments made up the sample size. Data from a mini-focus group interview and the study were combined. The interview questions were guided by the themes in the research questions. The findings showed that facilities in different schools are challenging for children with orthopaedic impairments to access. Additionally, it was shown that students with orthopaedic impairments find it difficult to enter the school environment. Therefore, the researcher recommended that, the school authorities and the district education directorate in conjunction with District Assembly should provide I.C.T centers, libraries, washrooms and playing field and make it independent of a student's disability, available to all students. Also, it is recommended that, teachers needs to educate students with or without disabilities on the need for them to involve each other effectively in activities in the school and outside the classroom. Finally, there is the need for the District Education Office to have accurate data on students including those with disabilities and regularly update these records for proper and up to date information on students in the district.
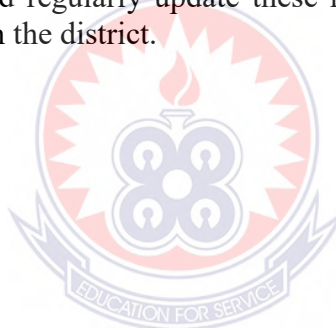
CHAPTER ONE

INTRODUCTION

1.1   Background to the Study

Regardless of age, gender, color, economic situation, physical ability, or disability, education is crucial for everyone. According to McLeod (2014), students with orthopaedic disabilities encounter personal limits at school that have an impact on their social, psychological, and intellectual domains and may possibly have an impact on their academic achievement. With the assistance of the parental community and the government, some of the restrictions can be reduced.

Orthopaedic impairment is a condition that substantially limits one or more basic physical activities in life (i.e. walking, climbing stairs, reaching, carrying, or lifting). These limitations hinder the person from performing tasks of daily living. Orthopaedic impairments are highly individualized and can affect students very differently. Mobility impairment describes any difficulty which limits functions of moving in any of the limbs or fine motor abilities. Mobility disabilities can stem from a wide range of causes and be permanent, intermittent, or temporary. The most common permanent disabilities are musculo skeletal impairments such as partial or total paralysis, amputation, spinal injury, arthritis, muscular dystrophy, multiple sclerosis, cerebral palsy, and traumatic brain injury. Additionally, conditions such as respiratory and cardiac diseases can impair mobility due to fatigue.

People with orthopaedic impairments experience little to no chances of enjoying school environments or practices due to fewer priorities given by educational providers to issues that cushions students who have the physical disabilities. The lack of such opportunities in Ghana is conspicuous in areas like

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curricula for students with physical disabilities, including those who have orthopaedic impairment, teaching and learning resources, physical facilities, specialized programs, sports and games, and environmental concerns for students with physical disabilities, including those who have orthopaedic impairment, as well as the overall quality of education (Macleod, 2014). Reaching marginalized kids with physical disabilities, particularly those with orthopaedic impairment, is one of the main problems for the population's continued exclusion from high-quality education, according to Education for All (EFA), Global Monitoring Report (2010). (Macleod, 2014). The Salamanca Framework for Action (1994) shown that enjoyment and practice of human rights as well as human dignity depend on inclusion and involvement (Salamanca Framework for Action, 1994).

According to the United Nations Convention on the Rights of the Child, every child has the right to an education regardless of their disability or any other type of discrimination (UNCRC, 1989). Students with orthopaedic impairment should not be excluded from the mainstream education because of their disability, according to the 2006 UNCRPD (United Nations Convention on the Rights of People with Disabilities) (Minou, 2011). The UNCRPD emphasized the need of providing reasonable accommodations for people with disabilities so they can access lifelong learning without discrimination and on an equal basis with others.

The United Nations Convention on the Rights of People with Disabilities (UNCRPD), which was adopted in 2006, further stated that practices should be in line with the standards set forth in the UNCRC and other international and national documents in order to implement successful inclusive education policies and programs.

According to Article 24 of the UNCRC (2006), every society or community shall ensure the full and effective inclusion of people with disabilities. Without inclusive education, most cultures cannot fulfill this requirement, meaning that students with disabilities cannot be excluded from the general education system on the grounds of their disabilities. According to the convention, students with disabilities, particularly those pursuing orthopaedic education, have a fundamental legal and moral right to inclusive education at the elementary, secondary, and college levels, regardless of any obstacles that may be in their way. Since the UN released the Universal Declaration of Human Rights in 1948, there have been regulations requiring all pupils to get a quality public education.

The UNCRPD (2006), which Ghana ratified on August 21, 2012 and which was also incorporated into the constitution, reaffirmed Ghana's commitment to respecting the human rights of all of its citizens, including those who have disabilities like orthopaedic, visual, and hearing impairments.   The UNCRPD (2006) established that disability including students with orthopaedic impairment is not only a social problem but a human right issue as well. The Salamanca Statement (1994), which set the foundation for inclusive education, also highlights this intervention drive for the accessibility of educational opportunities for all people. This international effort aims to make high-quality education available to everyone. According to the Salamanca Statement from 1994, inclusive education should attempt to achieve two objectives. Firstly, it should reconstruct the educational provision for all pupils; Secondly, to increase educational chances for underprivileged communities that have historically had little to no access to formal education.

The experiences of students with orthopaedic impairment are important in their total educational pursuit. What students with orthopaedic impairment are exposed to

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in the educational environment influences the kind of skills and knowledge the student will acquire (Bhan, 2012). This means that when they are exposed to positive life experiences such as hard work, competition, discipline environment among others, it will impact on them personally positive and the society at large. On the other hand, negative experiences such as peer group influences will make the students with orthopaedic impairment socially misfit for the society and will be a burden for both the family and society as well (Bhan, 2012). Many developing countries have recognized educating individuals with disabilities in mainstream settings as a desirable form of education, and have adopted inclusive educational policy, yet it is mostly not satisfactorily implemented in many countries (Bhan, 2012). Social justice and the inclusiveness tenet have been intertwined. For example, according to Theoharris (2009), the practice of inclusion is integrally tied to social justice because it preserves values like respect, care, appreciation, and empathy while simultaneously questioning beliefs and actions that either directly or indirectly support marginalization and exclusion.

Frattura and Capper (2007) argued that administrators, teachers, and other educational professionals must constantly reflect on the situation of their school in order to frame the inclusion of students with disabilities as a matter of equality and social justice. Frattura and Capper (2007) views relate to social justice for students with orthopaedic impairment too. Similar traits, according to Fullan (2003), are necessary for creating moral schools because social justice is a fundamental component of educators' belief systems in such institutions.

Because of the advantages that come with it, educating special education students in regular classrooms is a smart approach. The advantages of inclusive education were emphasized by Avoke and Avoke (2004) as a way to promote

friendship, respect, and understanding while reducing fear. Students with orthopaedic impairments require an education that will support their socialization and equip them for a life in the general population. Pupils with physical disabilities, especially those with orthopaedic, cannot be documented in traditional classrooms without their input discussing their experiences with their disability. Thus, the focus of this study would be on the academic and social experiences of students with orthopaedic impairment. For kids with unique needs, such as those who have orthopedic impairment, maintaining social connections is essential to their overall development. According to Gottlieb, Gottlieb, Berkell, and Levy (2001), academic success for students with orthopaedic handicap depends on their ability to grow socially and emotionally. However, there hasn't been much or any study on peer interaction to back up this progress, particularly when it comes to playtime for students with orthopaedic impairment (Gottlieb et al., 2001). Social constructivist pioneer Lev Vygotsky recognized the significance of fostering meaningful social interactions throughout a child's development. According to his studies, interactions between students with special needs and adults and peers are extremely beneficial. Children who have challenges should be included as much as possible into the usual activities of the primary culture, according to Vygotsky (Berk Winsler, 1995, p. 83). Students with special needs can connect with peers in a regular school setting thanks to inclusive education. In the United States of America, for instance, all children with disabilities are entitled to free public education (FAPE) (Jasper, 2004). New rules for ensuring the inclusion of students with special needs in the general education classroom were put in place with the advent of the Individuals with Disabilities Act, or IDEA (Pub.L 94-142) (Jasper, 2004). IDEA allows children with disabilities, including those with orthopaedic impairments, to participate in regular classroom activities. However,

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certain accommodations and modifications must be made to guarantee that the students have equal access to learning opportunities. Students with disabilities require these adjustments not only for academic performance but also for the social and emotional experiences that come with a general education classroom to succeed in life. A crucial outcome of the ideal inclusion method is the social development of kids with special needs. These students work cooperatively with their teachers and classmates in the classroom. If the purpose of inclusion is social engagement, then teachers need to have new perspectives on how to encourage social engagement in inclusive early education programs (Walker & Berthelsen, 2008). Although IDEA allowed for social interaction, to ensure that children with special needs are included in the inclusive classroom, further steps must be taken. The socialization and interaction approach is being expanded to accommodate students with orthopaedic impairment. Students with physical disabilities, especially those with orthopaedic impairment, who play tend to be more mentally advanced, according to research done by Berk and Winsler (1995), as well as being viewed as more socially adept and understanding their own feelings as well as those of their peers without impairments. It was also intended to identify views and perspectives held by members of staff and teachers who taught students with orthopaedic impairment in the target schools and colleges (Celeste, 2006).

The social interactions of students with orthopaedic impairments have a significant impact on their academic chances and sense of self. Positive social interaction between students with and without disabilities including those with orthopaedic impairment makes them feel recognized, accepted and loved in a society. Neary (2010) found that when students including those with physical disabilities create healthy relationships with their peers, kids may feel more confident and

motivated to learn, which are essential for academic achievement. However, owing of their conditions, students with orthopaedic impairment can encounter unwelcoming attitudes from their peers, which does not encourage their social participation. Derrington and Kendall (2004) remarked that persons with disabilities experience hostile attitudes and get called names and some of them stay away from their peers without disabilities. Therefore, when discussing the topic of overall education, the quality of social interaction cannot be disregarded. The setting in which students with orthopaedic disabilities find themselves has a crucial impact in their learning and work as well. Students with orthopaedic disability, their teachers, typical classmates, and coworkers with disabilities make up the social environment at school. The intellectual environment is the academic component of the learning environment. It involves course content learning through activities like group learning, classroom discussions, and various assessment procedures. Teaching and learning materials (T.L.Ms) are also part of the intellectual environment. The learning environment for children with orthopedic impairments in school buildings includes classrooms, libraries, information and communication technology (ICT) labs, and other spaces. As a student spends most of their lives at school, the school environment is highly responsible for inculcating of greater values in him or her. Students experience at school occurs within the learning environment. The physical, intellectual and social environment makes up the three components of the school environment (Pohikooli, 2011). The social environment is the relationship that exists between members of the learning environment, including furniture and facilities in the classroom constitute the physical environment.

The school as an agent of socialization elevates social skills that are appropriate and needed in life. The interaction of individuals (students and teachers)

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results in the transmission of proper social skills. Students interact together through play, chats and even eating together. Students with orthopaedic impairment are usually at a disadvantage when it comes to locomotive play. At the basic school, most persons with orthopaedic impairment avoid play due to the nature of most games being played. Not participating in play tends students' self-esteem. With a low self-esteem students with orthopaedic impairment lack, intrinsic motivation and drive to initiate conversation with their colleagues (Levitt & Cohen, 1977). consequently, Students with orthopaedic impairment tend to have fewer friends.

Ghanaian schools have historically been set up to segregate people of different backgrounds, both formally and unofficially. Examples include single-sex schools, religious institutions, and specific programs for people with "differently-abled" talents (Lodge et al., 2004). Ghana's educational system separates students with disabilities from the main student population and typically sends these kids to special schools or institutions, like many other developing nations (Lodge & Lynch 2004).

However, recent developments in Ghana have been profoundly impacted by international patterns and the expanding integration vs. segregation debate (Lodge & Lynch, 2004). Less than 1% of students with disabilities in Ghana currently attend special schools, according to the Special Education Division (2013). Children with special needs who will attend school in inclusive mainstream settings have a framework for individualized educational planning thanks to the Education for Persons with Special Educational Needs (EPSEN) Act (EPSEN, Act of 2004).

According to Egan (2004), despite improvements in the educational options for children with disabilities and favorable legislative developments on inclusion in education, schools have recently seen major funding cuts for special needs help and

resources. When selecting a school for their special needs children, parents should consider a variety of factors, including class sizes, child safety and protection, curricular issues, teacher attitudes, and social inclusion, according to Egan (2004).

1.2   Statement of the Problem

The rapid increases in experiences of students with orthopaedic impairment in inclusive schools cannot be discussed without hearing from them how the conditions in the school have been treating them. Records show that enrolment of students with orthopaedic impairments keep increasing almost every term. for example, from 2012 to 2018, in six inclusive schools in the Sekyere South District of Ashanti Region, there are now thirty (from seven) pupils with orthopaedic disability.   Even though the enrolment figures are on the ascendency in the Sekyere South District of Ashanti Region, the academic performance of students with orthopaedic impairments appears to be declining as compared to their peers without orthopaedic impairment. Therefore, the purpose of this study was to explore their experiences and how they affected both their social and academic lives.

Interactions with students with orthopaedic impairment during break time as school improvement support officer (SISO) have revealed that most of them have difficulties in accessing facilities in the schools such as; the playground, washrooms and school libraries. Interactions with students with orthopaedic impairment on their experiences further revealed that some students with orthopedic impairment have dropped out of school as a result of not having access to school facilities such as; playground and washrooms.

Research conducted by World Health Organisation (2011) indicated that, experiences of students with orthopaedic impairment shows they are less engaged in social play and usually count on others for social arrangements. Students with

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orthopaedic disability and their peers without disabilities don't seem to get along well. Additionally, it seems like pupils with orthopaedic disabilities don't participate fully in class. Also, subsequently, it seems the nature of school facilities does not correspond with the needs of students with orthopaedic impairment.

In the present study, the researcher believed that, experiences of students as regards social play could help improve academic performance of students including students with orthopaedic impairment so lack of social play among students with orthopaedic impairments in the Sekyere South District of the Ashanti Region could ultimately have an impact on both their social and academic lives. Prior to the study, an empirical inquiry was conducted on the perceptions of children with orthopaedic impairment at inclusive schools in the Sekyere South District. The current study concentrated on the Sekyere South District of Ghana's Ashanti Region in order to better comprehend the experiences of pupils with orthopaedic disability in inclusive settings.
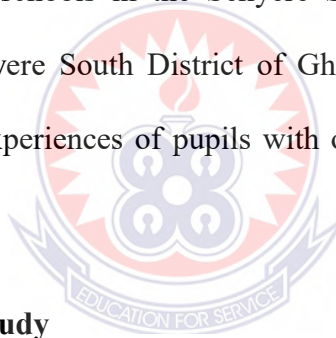
1.3   Purpose of the Study

The study's goal was to learn more about how children with orthopaedic disabilities experienced inclusive education in Ghana's Sekyere South District.

1.4   Objective of the Study

The objectives of the study were to:

1. Find out the extent to which students with orthopaedic impairment have access to facilities in schools at the Sekyere South District.

2. Investigate the interactions between teachers and kids who have orthopaedic impairments in the district's classrooms.

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3. Find out how students with and without orthopedic impairment relate among themselves during social activities in the District.

4. Examine the support students with orthopaedic impairment receive from their parents.

1.5 Research Questions

1. What are the experiences of students with orthopaedic impairment concerning access to facilities in the school?

2. How are pupils with orthopaedic impairments taught and educated in the classroom?

3. What are the experiences of students concerning the assistance they receive from their parents?

1.6 Significance of the Study

The results of this study would reveal the experiences of students with orthopaedic impairments in inclusive schools in the Sekyere South District. Also, the study would reveal the experiences of students with orthopaedic impairments concerning access to facilities in the school. Again the results of the study would provide information on the class room teaching and learning experiences of students with orthopaedic impairments. Additionally, the study's findings would shed light on how orthopedically impaired adolescents interact with their peers who are not disabled.

The study's findings would provide light on how students with orthopaedic impairments felt about the parental support they received. This will enable parents offer the needed assistance to their wards or students with orthopaedic impairments. It will also help members of the District Assemblies, and department of social welfare

facilitate timely disbursement   of the Disability Fund of the District Assembly Common Fund to students with orthopaedic impairments.

Last but not least, the findings will contribute to the body of knowledge already available on acceptable and successful environmental changes required to improve integration in inclusive schools, particularly during teaching and learning activities in the classrooms.

1.7   Delimitations of the Study

The focus of the study was on kids with orthopaedic impairments who attended inclusive schools in Ghana's Sekyere South District of the Ashanti Region. The study was specifically limited to the experiences of students with orthopaedic impairment regarding access to facilities in the school, classroom teaching and learning experiences, the experiences of students with orthopaedic impairment regarding how they interact with their non-disabled peers, and the experiences of students regarding the assistance they receive from their relatives in school and at home.

1.8   Limitation of the Study

Observation should have been conducted to support the findings of student's experiences. However, following the COVID 19 pandemic, and that could, to some extent limit the generalization of the research findings.

1.9   Operational Definitions of Terms

Experience: It is a practical contact with and observation of facts or events; ie the processes of doing and seeing things and of having things happen to you.

Social interaction: Is the process of two people being stimulated and responded to in turn. It fosters competitiveness, has an impact on social roles, status, and interpersonal relationships.

Students with orthopaedic impairment: They are students who use wheel chairs and crutches as a result of acquired or congenital physical and motor impairment.

Physical facilities: They contain all the physical assets required to deliver formal education, such as buildings, furnishings, labs, and libraries.

1.10   Organization of the Study

In line with the in-house style of the UEW, this thesis was presented in six chapters. The study's background, problem statement, goal and objectives, research questions, importance, study delimitations and restrictions, operational definitions of words, and study organization were all included in chapter one. Chapter 2 covered an overview, a summary of the results from the literature review, and a review of significant literature in relation to the theoretical framework of the study. The study's findings and interpretation were reported in chapter four, and the discussion of the results was addressed in chapter five. In chapter three, instrumentation, instrument validity and reliability, data collection techniques, and data analysis were all covered in more detail. The sixth and last chapter of the investigation was number six. It provided a synopsis of the research and highlighted the important findings' conclusions. Additionally, it listed the study's conclusions and proposed areas for additional investigation.

CHAPTER TWO

LITERATURE REVIEW

2.0   Introduction

Research articles, peer-reviewed journals, and books were used to review the literature. The literature also includes the theoretical framework and empirical studies in the area of the study. The areas covered were:

1.   Theoretical framework

2.   Extent to which students with orthopaedic impairment have access to school facilities.

3.   Classroom teaching and learning experiences.

4.   How much disabled pupils connect with their non-disabled classmates

5.   Support students with orthopaedic impairment receive from home and in school.

6.   Summary of literature review
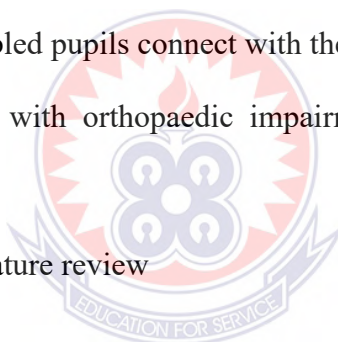
2.1   Theoretical Framework

Social Learning Theory of Bandura (1977) underpinned this study. It is a theory of learning and social behavior that contends that people learn new behaviors by mimicking and observing others around them. This shows that learning is a cognitive process that takes place in a social environment and can only happen through direct instruction or observation, even in the absence of physical reproduction or explicit reward. This hypothesis states that Bandura (1977) validated the behaviorist learning theories of operant and classical conditioning. The mechanism by which learning occurs through observation of rewards and punishments in addition to behavior is known as "vicarious reinforcement." A certain behavior is likely to persist

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when consistently rewarded; on the other side, a certain behavior is likely to quit when consistently punished. By highlighting the significant roles of numerous internal processes of the learning individual, Bandura's (1977) theory of social learning extends conventional behavioral theories, in which behavior is primarily driven by reinforcing.

Social interactions in an environment foster learning, according to Bandura's social learning theory from 1977. Through seeing others, people pick up similar or identical behaviors. After observing another person's behavior, people tend to imitate and adapt it, especially if their observations are successful and produce rewards that are related to the seen behavior. According to Bandura (1977), imitation requires a true duplication of the observed motor activities. One of the most important theories of learning and development in the disciplines of education and other lifelong learning is the social learning theory. Many crucial ideas from conventional learning theories are the foundation of Bandura's (1977) social learning theory. Social learning theory bridges the behavioralist and cognitive learning theories. Its components include motivation, memory, and attention (Muro & Jeffrey, 2008). Positive or negative direct reinforcement cannot be used in all learning situations, according to Bandura (1977). He introduced a social component as a result, claiming that through seeing other people, people might also pick up new knowledge and behaviors. The fundamentals of Bandura's (1977) theory state that there are three main guidelines for learning from one another.

It is considered that the social learning principle functions in the same way throughout life. For instance, observational learning can occur at any point in a person's life. New learning through the modeling process is always feasible insofar as exposure to new influential, powerful models that govern resources may occur at a

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particular life stage (Newman & Newman, 2007).   On the basis of these fundamental ideas, learning can take place without a change in behavior. Alternatively, social learning theorists assert that since people can learn via observation alone, their learning may not necessarily be reflected in their performance. According to behaviorists, learning must be demonstrated by a sustained change in behavior (Bandura, 1965). Consequently, changing behavior can result from learning or not (Bandura, 2006).

Children with special educational needs (SEN) face a variety of learning difficulties compared to the majority of their classmates who are the same age (WHO, 2011). The use of language moves the emphasis from the stigma attached to the student's disability to the particular educational support needed. The specific disabilities that need to be identified by instructors are those that fall under the general categories of physical, cognitive, motor, social, language, behavioral, and emotional development.   Since how kids with orthopaedic impairments socially or connect with their peers affects their academic learning, the social learning theory is pertinent to my research. The social component of learning influences academic learning to some extent. If students with orthopaedic disabilities are excluded from play, made fun of, or avoided due to their condition, they may not be in a sound enough mind to learn.

2.2   Access to School Facilities by Basic School Students with Orthopaedic Impairment

It can be difficult to teach kids with different learning styles, especially when it comes to fostering a warm environment. Learners have a variety of needs, and an unwelcoming environment within and outside of the school may lead to their exclusion from educational institutions, according to UNESCO (2004a, 2001). These assertions were supported by Ogot (2005), who said that accessible surroundings, as

opposed to ones with an inaccessible environment, aid in keeping students with disabilities enrolled in school. The setting should be modified to meet the demands of the varied learners in order to solve this issue.

2.2.1 Classroom environment

Inclusion is the process of integrating students with disabilities into regular education classes with their peers (Gilhool, 1989). As a result, this technique makes the classes that adopt it inclusive. The least restrictive environment requirement of the IDEA (2004) makes it clear that it is desirable to educate adolescents with orthopaedic disabilities in inclusive classrooms. Additionally, students with orthopaedic impairments should be educated in inclusive classrooms in accordance with the least restrictive environment mandate unless their impairment is so severe that it cannot be managed in the general education classroom even with extra aids and services.

The 2009 study by Egilson and Traustadottir on integrating kids with orthopaedic limitations into the classroom was published. The relationships between the factors supporting or preventing a student with an orthopaedic disability from attending school were assessed by the researchers. In their study, Egilson and Traustadottir (2009) combined qualitative and quantitative data using a mixed-methods methodology. Fourty-nine (49) participants—14 (14) students, 17 (17) parents, and 18 (18) teachers—were the subject of qualitative research. Egilson and Traustadottir's grounded-theory methods served as the foundation for data analysis (2009).

In their study, Egilson and Traustadottir (2009) combined qualitative and quantitative data using a mixed-methods methodology. Forty-nine (49) participants –

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fourteen (14) students, seventeen (17) parents, and eighteen (18) teachers - were the subject of qualitative research. Data analysis was based on grounded-theory techniques developed by Egilson and Traustadottir (2009).

Using the School Function Assessment, quantitative data on thirty-two (32) students with orthopaedic disability were collected. The findings showed that each school's characteristics affected how many children with orthopaedic impairments participated Egilson and Traustadottir (2009). The school playground and field trips, which have wide areas and few structures, created more difficulties than others, according to Egilson and Traustadottir (2009). The likelihood that students with orthopaedic impairments would participate dropped as the number of risk variables rose, but the interaction between risk factors was just as significant. Egilson and Traustadottir (2009) came to the conclusion that occupational therapists should focus on the interaction of the child, environmental, and task components rather than focusing on individual aspects in order to increase school involvement of kids with disabilities. Egilson and Traustadottir suggest structuring the classroom and the school's grounds (2009).

According to UNESCO (2004), altering restrooms, enlarging classroom windows, painting classroom walls to improve illumination, leveling playgrounds, and adding ramps to classrooms and school buildings can all increase accessibility in the educational context. The educational environment should be designed with each student's learning pace in mind. A beneficial social environment is also promoted, claims UNESCO (2004). When the environment in regular schools is helpful, the integration of kids with special needs is at its best. Schools must have a welcoming, considerate, accommodating, and supporting culture as well as one of freedom and direction (Moraa, 2013). As a result, the child's capacity for social engagement, self-

assurance, and security all increase. It was unclear whether all institutions had changed the environment to accommodate all students, even though the ministry of education required all normal schools to accept all pupils regardless of their differences (Moraa, 2013). The current study set out to interview children with orthopaedic disability at inclusive schools in the Sekyere South District in order to better understand their experiences. As a result, it should be given many possibilities for independent study.

For students with orthopaedic disability or other motor limitations, providing an accessible physical environment is crucial. Uslu and Baris (2009). The literature documents how the environment can limit a student's ability to walk and participate in daily activities if they have orthopaedic issues (Baris & Uslu, 2009). Therefore, for students with orthopaedic impairment, mobility restriction can be a source of anxiety and marginalization in participation through a number of channels. For example, a lack of supportive environments and accessibility infrastructure may prevent students with orthopaedic impairments from pursuing their education. (Hill, 1992). According to Hamzat and Dada (2005), students with physical disabilities, including students with orthopaedic impairment, who lack access to public buildings like health care facilities, access to vehicles, decent housing, clean environments, and good sanitation, suffer from adverse health outcomes that have a direct impact on their social, economic, and academic performance in society. Students with orthopaedic disability may experience discomfort as a result of the adverse health effects and the inhospitable environment combined (Baris & Uslu, 2009).

According to one study, the main reason why adolescents with orthopaedic impairment did not attend school was the lack of readily available facilities for cleanliness, sanitation, and water (Singh et al., 2014). Typically, the impairment will

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dictate the most effective ways to make the learning environment more accessible for the student. For example, a student with one arm will need different adjustments than a student who is blind or has vision problems. The resources that a student with a handicap has access to outside of the classroom, such as a wheelchair, a cane, or crutches, should also be made available inside the classroom (Singh, Honda, Frost & Urich, 2014).

In a mainstream school, Llewellyn (2000) looked into the experiences of young people with orthopaedic impairments. Interviews were conducted with parents, form tutors, and six students who have orthopaedic impairments. The findings demonstrated that the school was unable to meet the participants' clinical, social, and psychological needs. Llewellyn (2000) came to the judgment that the mainstream education these students received was prejudiced and that the school was not providing the protections and benefits necessary to advance the physical and mental health of students with disabilities. Thirty-four children with orthopaedic disabilities, aged between ten (10) and nineteen (19) years, were interviewed for Hemmingson and Borell's (2002) study, which confirmed Llewellyn's (2000) conclusions (2002). Due to their physical and social settings, the majority of the pupils encountered difficulties to involvement in the classroom, according to Hemmingson and Borell (2002).

According to the Standards and Guidelines for Practice of Inclusive Education in Ghana, each building and its location must be conceptualized and planned as an integral unit from the very beginning of the planning process in order to accommodate all learners, including those with disabilities (2015). All entrance path/sidewalks and/or walkways shall be smooth, devoid of non-slip materials and shall have a firm level surface suitable for walking and wheeling.

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The Standards and Guidelines for Practice of Inclusive Education in Ghana (2015). It is important to note that irregular surfaces as cobblestones, coarsely exposed aggregate concrete, bricks etc. often cause bumpy rides. Standards and Guidelines for Practice of Inclusive Education in Ghana state that "moderate two-way traffic shall be 1650mm to 1800mm and the minimum walkway width shall be 1200mm (2015, p. 21).

Public structures are thought as unobstructed structures. Public buildings are typically thought of as sustainable or barrier-free buildings. Both people with physical impairments and people without physical disabilities must be able to enter public places (Ghaem 1991; Strizek, 2006).

Public buildings include office buildings, commercial buildings, assembly halls, healthcare facilities, libraries, sports facilities, public transportation facilities, religious structures, government administrative structures, educational structures, religious structures, and banks (Ghaem 1991; Strizek, 2006).
Most of the time, kids with orthopedic impairments find it challenging to enter such public structures for no other reason than their orthopedic disability (Church & Marston, 2003). The obstacles could take the form of tiny doorways, steps, and staircases, as well as restricted access (Church & Marston, 2003). Therefore, because their environment draws attention to their condition, disabled persons get dissatisfied and hampered. Architectural and urban barriers have prohibited persons with disabilities from engaging in social activities, according to Ghaem (1991), and this has a negative impact on society at large as socializing is crucial and necessary to adapt in the society one finds oneself in (Ghaem, 1991).

Shakespeare and Officer (2011) posited that, participation takes place in a given life situation such as participating in academic pursuance, social activities,

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cultural activities among others. In theory, people with disabilities are only entitled to equality and equity of opportunity, a full and respected existence, and a setting that promotes independence and self-reliance rather than segregation and exclusion (WHO, 2011). Therefore, participation restriction occurs when the built environment, human behavior, and infrastructure do not adapt to individual needs, preventing persons with physical impairments from fully accessing and functioning, especially those who have orthopaedic disability. The result of these restrictions is that people with physical disabilities, particularly those who have orthopaedic disability, are left with little choice but to bear a burden or reduce their degree of engagement and involvement in academic and social activities. The United Nations Convention on the Rights of Persons with Disabilities protects the rights of students who, among other things, have orthopaedic impairments, visual impairments, hearing impairments, and intellectual disabilities (WHO, 2011). To ensure the implementation of these very important resolutions, there is the need for evidence to back the assertion that the environment to some extend imposed some restrictions on the functionality of socio-cultural and academic abilities of students or persons with disabilities in general. If there is enough evidence that the environment interfered in the functioning of persons with disabilities, then how it affected and ways and measures that can be adopted to overcome these difficulties needs to also be studied to find remedies to these discrepancies or challenges faced by persons with physical disabilities. Numerous studies have shown that students with disabilities, including those with orthopaedic impairments, frequently experience difficulties participating in school-related extracurricular and curricular activities. They have also determined that adolescents are significantly impacted by orthopaedic impairment.

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(Prellwitz & Tamm, 2000; Mancini et al. 2000; Pivik, et al. 2002; Eriksson et al. 2007; Schenker et al. 2005; Mancini et al. 2000; Hemmingsson & Borell, 2000, 2002).

According to Eriksson et al. (2007), there is a gap between kids with orthopaedic impairment and their non-disabled peers, with adolescents with these conditions reporting lower levels of wellbeing at school and less-developed peer interactions than could be expected. Eriksson et al. (2007) added that it is impossible to tell how much the challenges faced by children with orthopaedic disabilities are brought on by personal factors or by the environment's failure to accommodate their needs. There are some environmental disadvantages such as building of school facilities like school libraries, computer laboratories, washrooms, among others on a higher floor of a building will affect access of students with orthopaedic impairments (Eriksson et al., 2007).

Children with orthopaedic impairment continue to be among the most disadvantaged in Ghana in terms of access to education and finishing their basic education, notwithstanding international accords on inclusion, such as the Salamanca Statement (1994). 1994 (UNESCO). The World Bank Report (2009) stated that individuals with orthopaedic disability have numerous disadvantages and are the most shut out of educational opportunities, which Ghanaians are not exempt from. According to the study, disabled children have a four to five times lower likelihood of attending school than typically developing youngsters Bank of the World (2009). Parents are frequently having to choose between providing education to a kid with a handicap and a child without a disability due to financial difficulties, transportation costs, the expense of educational supplies, and parents' lack of time to accompany children to school.

2.2.2   Access to the library

National libraries and professional library organisations have long pushed for the availability of materials in formats that are accessible to people with disabilities. In addressing accessibility challenges, national libraries and library association campaigning have frequently been in front of the legislative curve (American Library Association, 2006; Russell & Huang, 2009), referenced in Hill (2013). Long before the Americans with Disabilities Act came into effect in 1990, there was concern in the US about the accessibility of library resources and library services to people with orthopaedic disabilities. (ADA).

The American Library Association (2006), Russell & Huang (2009), and Hill (2009) also mention that suggestions on library standards for individuals with disabilities were already in place in Australia a year before national legislation became effective in 1999. (2013).

Everyone who visits a library has the chance to get some useful help. Since libraries provide resources to people who might not otherwise have access, socioeconomic gaps are generally perceived as being leveled by them (American Library Association, 2006; Russell & Huang, 2009; referenced in Hill (2013). Practitioners, professionals, and the expected growth in disabled individuals have long been concerned about accessibility.   Creaser et al. (2002) studied the accessibility of library facilities by students with disabilities. The emphasis was on the services libraries are offering, what they need to improve upon, and how those services are perceived, which offers some insight into how the profession views and understands such services. Creaser and others (2002). The results revealed that there was the lack of information behavior and first-hand information from persons.

Hill (2013) conducted study on the literature of library and information science about the accessibility of educational resources for students with impairments. Hill found that while many public institutions at least nominally managed the physical environment, even libraries established with accessibility in mind occasionally encountered unforeseen physical environment issues. Hill came to the conclusion that school libraries should adopt a user-centered approach, which would require speaking with people with disabilities about their information needs and the obstacles they encounter when trying to access information.

Ekwelem (2013) conducted research on issues with outcome assessment for library services for students with orthopaedic disabilities in the digital age at the Nnamdi Azikiwe Library at the University of Nigeria in Nsukka, Enugu State, Nigeria. The study's goal was to examine how people with orthopaedic disabilities used electronic resources to access libraries in South-East Nigeria. Ekwelem (2013) (2013) the study used a survey strategy that combined interview data collection. The research revealed that the libraries were designed to exclusively accommodate individuals without impairments, and that the requirements of those who could not or did not utilize the libraries were not adequately known Ekwelem (2013). The research results showed that purchasing and setting up electronic resources for students with orthopaedic impairments is expensive. Because most electronic resources for students in libraries were created for students without impairments, most electronic resources for regular users were listed as limitations (Ekwelem, 2013).

The study was conducted at tertiary institution in Nigeria whilst the present study though was conducted with similar objectives and outcome in mind, it was conducted in some schools in Ghana. The findings of extensive national surveys on students with orthopaedic impairment accessing school libraries in the United States

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(Bonnici et al., 2009), the United Kingdom (Kinnell & Creaser, 2001), the United States (Ryder, 2004), the United States (Harris & Oppenheim, 2003), and Argentina (Todaro, 2005) reveal that while library staffs were supportive of including students with orthopaedic impairment, there were significant obstacles and limitations. About instance, some libraries choose not to make their accessible services widely known out of concern for the likelihood of excessive demand.

Study on the best methods for servicing students with impairments at the library was undertaken, according to Ekwelem (2013), citing Samson (2011). The goal of the study was to create a set of best practices that adhere to the new Department of Justice standards and reflect the spirit of the ADA (1990). (2010). The librarian who has the most direct responsibility for library services for students with disabilities was interviewed at each of the eight university libraries spread across four Rocky Mountain states. Self-reporting students with orthopaedic disability were the largest minority group on three universities, according to Ekwelem (2013), and the second largest minority group on three additional campuses. Three libraries added more universal access components, whereas five libraries focused their services primarily on responses to complaints. Ekwelem (2013) (2013). The eight participating libraries did not have a clear strategy or set of best practices for serving kids with orthopaedic disabilities, and the situation in Ghana's libraries will not get any better (2013). Therefore, it is necessary to investigate the experiences of students with orthopaedic impairments in inclusive schools in Ghana's Sekyere South District. In a further study, Cater (2004) identified three areas where academic librarians may concentrate their efforts to better meet the requirements of students with orthopaedic impairments. These include staff training, web page design, and bibliography education. All students, according to Cater, can gain from improved services for

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independent study, increased sensitivity to and awareness of various learning styles, and simpler information access (Cater, 2004).

2.2.3 Playground

The playground is crucial for kids to engage in recreational activities when they are at school. Children learn via play, hone their skills and abilities, have fun, and express their emotions Belch (2011). The playground must be safe and usable by all kids, including those with impairments, in order to support children's growth. Belch (2011) conducted a study on accessibility of playground for children with orthopaedic impairments. The purpose of the study was to assess how easily young children in an early childhood education environment could use a school playground and to examine how frequently kids with orthopaedic impairments participated in recreational activities. Belch (2011).

Three young children with orthopaedic disabilities from a preschool in a So Paulo, Brazil, municipality served as the study's participants. They ranged in age from four to six. Belch (2011). There were two stages to the data collection process: (1) A playground's accessibility was assessed using the protocol for assessing physical accessibility in early childhood schools, and (2) kids with orthopaedic impairment were observed as they participated in playground play activities. Belch (2011) noticed that kids with orthopaedic disabilities couldn't use the playground. However, the special education kids took part in activities with the assistance of teachers and cares. The study found that children with orthopaedic impairment may not have performed as well as they could have in school playground activities due to a lack of adequate recreational equipment (Belch, 2011).

Additionally, the results of a study carried out in Brazil by Paciello (2000) examined the standards for disabled individuals' access to commercial facilities and

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places of public accommodation. The rules, which had 254 demands, were to be followed in the planning, building, and remodeling of public structures. Paciello (2000). The investigation covered a wide range of amenities, such as windows, doors, entrances, ramps, stairs, elevators, platform lifts, water fountains, and signage. For purposes of both new and current construction as well as urban planning considerations, the United Nations Organization (UNO) (2003–2004) further divided the facilities into those that will be needed for vertical and horizontal access (open spaces, recreational centres and pedestrian routes) World Organization (2003-2004). The target population included those who used wheelchairs and had limited mobility. The researcher also established implementation checklists. In order to ensure integration (Hill, 1992) and inclusive involvement of students with orthopaedic impairments, the provision of accessibility in the built environment is a necessary step (Baris & Uslu, 2009). Otherwise, the impact of the built environment on students with disabilities might negatively affect the performance of the other students in the class. Hence the current study sought to investigate the experiences of pupils with orthopaedic impairment in inclusive schools in Sekyere South District of Ghana.

2.3   Experiences of Students with Orthopaedic Impairment in Teaching and Learning

2.3.1   Accommodate communication needs

Communication strategies are the strategies that learners use to convey their intended meaning in order to overcome problems. They include nonverbal cues like physical closeness between communicators and nonverbal cues like tone of voice, body language, and facial expressions (Austin, 2015). These techniques could involve paraphrasing, substituting, creating new phrases, returning to the native tongue, and requesting clarification. Among the communication tactics are the following: allowing

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for the student's preferred style for evaluations and giving oral comments in class discussions an additional 5 to 10 seconds each Austin (2015).

Utilizing the organic assistance of peers who are a student's natural surroundings the effectiveness of inclusive education in Austin may depend on natural support (2015). Students who have been identified as peer supports must, however, be provided explicit instructions on how to support their colleague in an empowering way as well as important information about their peer's disability and the kind of assistance they prefer (Bulat et al., 2017). Using the natural support of peers who are a student's surroundings, Austin's inclusive education program's success may be influenced by natural support (2015). Students who have been identified as peer supports must, however, be provided explicit instructions on how to support their colleague in an empowering way as well as important information about their peer's disability and the kind of assistance they prefer (Bulat et al., 2017).

Teachers are responsible for ensuring fair student evaluations and that all students engage in the learning process. This calls for teachers to ensure that all children participate and to give them the chance to answer to inquiries in a non-threatening and intimidating manner (Greenstein, 2012). Among the most crucial elements of inclusive education are the attitudes of parents, teachers, and school officials. People with impairments may be viewed as a type of divine retribution or as bringers of ill luck in some cultures (Ingstad & Whyte, 1995). Recognizing and rejecting widespread misconceptions about students with disabilities. Staff members at schools should take the effort to comprehend how certain attitudes are formed, such as through experience, culture, or peer pressure. However, if the cause is identified, it is simpler to address and resolve these issues (Hollins, 2015).

One way to change attitudes is to provide instructors the abilities and confidence to do their jobs, and ongoing in-service training makes sure that abilities are gained and used as intended. The use of such abilities by teachers to enable fully inclusive classrooms is encouraged and supported by eliciting the support and understanding of school administration (Hollins, 2015). The current study, which sought to learn more about the experiences of children with orthopaedic impairments there, was concentrated on inclusive schools in the Sekyere South District of Ghana's Ashanti Region. According to Moodley (2002), institutions must make sure that teaching and learning resources are used and made available to all learners in line with their needs if they want students to actively participate in the teaching and learning process. Morley (2010) discovered that students with orthopaedic limitations not only faced worry and anxiety but also trouble preparing for higher education since they lacked the knowledge necessary to make good decisions. Morley noted that kids with orthopaedic disabilities sometimes didn't know who was in charge of assessing their needs and resources or what entitlements or rights they had access to. Think about the idea of a legal "reasonable accommodation".

UNESCO also emphasized the necessity for students to get instructional resources in formats that meet their specific needs (2004). Students would require additional resources in addition to those the school provides in an inclusive setting. Hearing aids, crutches, wheelchairs, positioning aids, optical and non-optical aids, and positioning aids are resources that can help with movement and communication (Randiki, 2002). The use of adjacent resources by instructors to promote learning is strongly emphasized by inclusion (Moodley, 2002). The current resources should be centralized, according to Randiki (2002) and Ogot (2004), so that additional schools can make use of them. Utilizing local craftspeople to create and fix equipment can

also help to lessen the issue (Moodley, 2002). It was unclear whether typical primary schools had the resources necessary for all the students with special needs because some of these technologies are relatively expensive and others are not locally accessible (Moodley, 2002). Additionally, it was unknown whether this may have an impact on the enrollment and retention of students with impairments. This was determined by the investigation.

2.3.2   Curriculum and teaching methods

Other determinants of successful inclusion include the curriculum and instructional strategies. A fundamental barrier to inclusion in every educational system, according to UNESCO's 2003 report, is the curriculum. The curriculum is sometimes very strict, rigorous, and unadaptable in many situations (Moodley, 2002). A flexible curriculum might make it easier to create an environment that is more inclusive. Teachers can modify their lessons for specific students. Different types of impediments prevent special needs children from getting school. As a result, obstacles in the curriculum must be found and removed (Moodley, 2002). As a result, the curriculum needs to be adaptable to suit the varied skills and passions of a broad student body. Accessible curriculum must be developed and put into practice for all pupils. Mittler (2002) asserts that it must take into account and respond to the diverse cultures, ideologies, and values.

Negative attitudes are frequently brought on by ignorance and a fear of the unknown. Scruggs and Mastropieri examined teachers' attitudes about mainstreaming and inclusion in 2000. The results of 28 studies on instructors' opinions towards enrolling impaired students in their classes, conducted between 1958 and 1995, were collated by the researchers. They found that the inclusion concept was supported by about two-thirds of general education classroom teachers (Mastropieri & Scruggs,

2000). When asked if they would be willing to teach children with disabilities in their own courses, the majority of respondents stated hesitation or unwillingness. The majority of respondents thought they lacked the time, expertise, money, and equipment required to work effectively with challenged children (Mastropieri & Scruggs, 2000). Therefore, research appears that even while teachers may be eager to allow students with impairments into their classes, other circumstances may have a good or negative impact on their attitude.

Mushoriwa (2001), quoting Wilezenski (1992) research on Australian teachers' views toward inclusive education, claims that the teachers supported social inclusion programs for their pupils more than those that demanded structural adjustments in the school or classroom. Moreover, teachers felt greater compassion for children who needed scholastic adjustments than for those who had orthopaedic disabilities. According to Wilezenski (1992), teacher attitudes regarding admitting students with a handicap in a regular class depend on the type of condition and the demands it ultimately places on the instructor (Mushoriwa, 2001).

Meijer (2001) asserts that the success of inclusion in schools is influenced by teachers' attitudes about the practice of inclusive education. Obeng (2007) asserts that instructors' lack of readiness is the key factor contributing to their inability to provide accommodations for students with disabilities in regular schools. According to the literature currently available, subject-matter competence of instructors is ultimately what makes inclusive education successful. The finest alternative educational strategy for guaranteeing access to education for everyone is universally recognized as inclusive education, according to Obeng (2007). However, both experienced and new teachers must face the task (Eileen, 1999). Similar to this, Hardman et al. (2002) came to the conclusion that it was crucial to treat with the necessary seriousness the skill set

and knowledge required of instructors in dealing with the particular requirements of children with disabilities. The nature of teacher development has therefore become a subject of concern (Whitworth, 2001). Therefore, it has been necessary to thoroughly review, communicate, and comprehend the significance of the unique position of teachers in the inclusive educational system. In the context of England, Golder et al. (2005) suggested a policy direction through enhanced teacher preparation.

Walsh (2018) found that although teachers want children with orthopaedic disabilities in their classes, they do not feel fully prepared to deal with these students' access to education. The chance for teachers to learn more about how to run inclusive classrooms should be provided. Students who may struggle to demonstrate what they have learned in class or who may require more time to finish projects or tests should get assistance in learning how to establish suitable test adjustments.

Assessments may also need to be adjusted to account for a child's disability (Thurlow et al., 2003). Examples of usual adjustments for students with learning difficulties include testing or allowing them to utilize items to demonstrate their comprehension of a concept (Thurlow et al. 2003). While allowing students some freedom in how they use the language, teachers should place a priority on ensuring that students learn and understand the course material. Additionally, they must to permit students to submit responses in the languages and communication formats of their choice (Thurlow et al., 2003).

In order to reach semi-nomadic livestock keepers who dwell in a sensitive ecological area in the northeast of the country, Uganda has developed a culturally sensitive curriculum. This has helped to reduce the number of children who weren't in school in this area (UNESCO, 2001). Schools that value diversity and inclusion could learn from this example. To serve the student with special needs in the classroom

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effectively, teachers must use a variety of instructional techniques. The teaching strategies employed in conventional schools should be suitable for the learner's capacity and learning process because these strategies are designed for pupils who are presumed to have no special needs. UNESCO, (2001). A thorough examination of the approaches had not shown whether they were appropriate or whether the teachers could modify them to meet the different needs of each learner. In order for pupils to learn and for teachers to teach, it is necessary to take into consideration factors like lighting, ventilation, temperature, and noise level, according to Lewis and Doorlog's (2003) theory. It appears that no research on children with orthopaedic disabilities has been conducted in Ghana's Sekyere South District in the Ashanti Region. The current study's objective was to learn more about how students with orthopaedic disabilities experienced inclusive education in the Sekyere South District.

2.3.3 Support services

Support services are an important to a successful inclusion programme. Apart from regular teachers and other teachers who have training on special needs education, successful education of students with disabilities requires the involvement of different professionals who assist in the identification, referral, diagnosis, treatment and provision of appropriate educational and related services. Randiki (2002) asserted that, this requires a multi-sectoral responsibility if full participation of the students with disabilities is to be realized. Peer assistance is necessary because they may assist with peer tutoring, push wheelchairs, and the provision of other services, according to Randiki (2002). Learners with special needs also need assistance from speech therapists, physical therapists, and occupational therapists in accordance with their needs (Randiki, 2002). To learn to respect one another despite their differences, they need therapy and mentoring. The community could also help with financial aid,

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transportation for pupils with special needs to and from school, and environmental adaption. Randiki (2002) stated that organizing all of these individuals to support inclusive education is a huge issue. He exclaimed:

> *Even with the current special schools, getting even one doctor to attend an assessment session in the districts is not easy. When all the regular schools will require their services the scenario will be more complex* (*Randiki, 2002, p. 72).*

Considering that this is a crucial aspect of inclusion that needs to be planned. According to Randiki (2002), it seemed unlikely that ordinary schools had such arrangements. Randiki went on to say that there had been no research done to determine whether or not those services were offered in ordinary schools. This study's goal was to pinpoint the services provided in traditional primary schools that would enhance the inclusion of children with disabilities (Randiki, 2002). According to research, the continued exclusion of disabled students from mainstream schools is a result of a variety of factors, including teachers' unfavorable perceptions and attitudes, a lack of sufficient teaching and learning resources, and a lack of support services for the proper inclusion of children with special educational needs. Effective instructors make the appropriate adjustments to the classroom environment to support the academic and social requirements of their students (Friend & Bursuck, 2006).

One of the essential requirements for inclusive education, according to Farid, is a proper classroom arrangement that supports the learning and development of all children, including those with special educational needs (2014). A universal design must be implemented in order to ensure that all pupils can physically access all materials and activities. The placement of the students' desks and chairs is one of the fundamental elements of a classroom that can be altered, according to Gaurdino and Fullerton (2010). Education professionals have conducted extensive research and

discussion on this problem (Gaurdino & Fullerton, 2010). A excellent classroom seating arrangement that might support children's learning in the classroom is thought to be the circular arrangement of desks. It is more likely that this will result in a rise in the academic success of kids with special needs. With smaller class sizes, this method of classroom seating arrangement performs better (Gaurdino & Fullerton, 2010).

Additionally, several studies have demonstrated that students who are placed in the first row of the class typically have a higher chance of outperforming their colleagues who are seated in other parts of the classroom (Totusek & Staton-Spicer, 1982). The front row of a classroom is thought to provide less distractions, allowing the student to concentrate more on the teacher. Universal design is "the design of things and settings to be useable by all people without the requirement for adaption or specialist design," according to the Centre for Universal Design (2011, p.6).

According to The Centre for Universal Design (2011), there are seven universal design principles that are used as a guide for outlining how structures, in this case classrooms, should be created in order for it to be deemed an infrastructure that is hospitable to people with disabilities. The first principle is the equitable use of a structure so that everyone, regardless of their skills, is able to utilize it Universal Design Center (2011).

The second tenet emphasizes that the structure should be flexible enough to accommodate different users' needs and preferences. According to the Center for Universal Design, the third principle emphasizes that the design should be simple to comprehend and use, regardless of the user's background or level of skill (2011). The fourth principle entails designing designs that allow users to comprehend their utilization regardless of their physical capabilities, according to the Center for Universal Design (2011). The fifth principle calls for the design to be error-tolerant by

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reducing risks and the negative repercussions of unintentional or accidental actions, according to the Center for Universal Design (2011).

The sixth universal design principle emphasizes the need for the design to be such that people do not have to expend too much effort to utilize it in a comfortable and effective manner (2011). The size and area for approach and use make up the seventh principle. It involves giving the appropriate size and space for approach, reach, manipulation, and use regardless of the user's body size, posture, or mobility. (2011) Center for Universal Design.

Therefore, a classroom and building are considered to be handicap friendly classrooms if they can satisfy these guidelines as suggested by the Centre for Universal Design.

Dilnesaw (2009) asserts that a classroom's physical environment can promote active learning. The physical environment (classroom structure and appearance, including how posters and visual materials are presented, student seating, and kids' access to learning tools) contributes in many ways to the active-learning approach.

To effectively conduct teaching and learning, there should be enough classrooms that are well-maintained and outfitted, according to Dilnesaw (2009). As a result, the teaching-learning process for pupils with orthopaedic impairment can be greatly aided or hindered depending on the child's placement in the classroom, the arrangement of the classroom materials, the impacts of the acoustic environment, and the state of a building. According to Centre for Universal Design (2011), the significance of resources in teaching and learning cannot be overstated. These resources are essential for effective teaching and learning, together with assistance. Universal Design Center (2011) the requirement for these tools and services intensifies when it comes to inclusion. Teachers in inclusive environments should use

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these resources to supplement their instruction. Then their instruction will be applicable to and beneficial to children with unique educational needs. According to Centre for Universal Design (2011), if these are not provided for or are provided insufficiently, inclusion practices and children with disabilities would suffer.

According to The Centre for Universal Design (2011), inclusive education has gained recognition as a significant educational trend with an aim to incorporating students with disabilities in regular classrooms. This recommendation obliges teachers to provide for a range of requirements in a single classroom (2011).

It is distressing to learn that teachers' opinions and perceptions regarding inclusive education, which are crucial for the achievement of inclusion, have been pushed to the margins. According to the Centre for Universal Design (2011), it is customary for teachers to accept policies and procedures and make the necessary adjustments without taking their own personal opinions into account. According to the Centre for Universal Design (2011), teachers' perceptions and worries about inclusive education have not received the necessary attention. The overwhelming body of research demonstrates that specific characteristics, such as good teacher attitudes and knowledge of inclusive education, must be taken into consideration in order to successfully implement inclusive education (Avramidis et al., 2002). Once more, successful instruction should center on institutional modifications that are considerate of the needs of students with disabilities (Mastropieri & Scruggs, 2000). According to Forlin (2001), the lack of proper teacher training worsens the hurdles to inclusive education. Concerns regarding teachers' preparation for inclusive education are growing, according to UK research. Preparing teachers for inclusive education has long been a lofty objective in the United States (Blanton & Pugach, 2007). Students with orthopaedic impairment sometimes have an additional disability of emotional

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disorder, and hence have low self-esteem or experiencing inferiority complex (Blanton & Pugach, 2007). These have an adverse effect on the education and experiences of pupils with orthopaedic impairment to some level (Blanton & Pugach, 2007).   To help students with orthopaedic impairment overcome these difficulties, there is the need for teachers of inclusive education to learn special education to equip them with the skills, knowledge and attitudes to handle such unique students thereby helping them benefit from classroom teaching and learning (Blanton & Pugach, 2007).

The majority of teachers were prepared for general education classrooms or special education classrooms, which has made the path towards complete education for all a very difficult challenge for many schools around the world. According to Whitworth (2001), the various universities and colleges of education do not provide their instructors with the essential course material to prepare them to teach in inclusive classrooms. Whitworth (2001) pleaded for the creation of a brand-new teaching methodology for teacher preparation in order to provide educators with the abilities to teach in inclusive environments (2001).

It's unclear why it's tough for students with impairments to make and stay friends. Many variables, such as the type of disability, class size, and instructor attitudes, are claimed to affect whether or not children with disabilities are included in regular classrooms (Scruggs & Mastropieri, 1996). The attitudes of kids who normally develop are another factor deemed crucial. According to Stoneman (1993), unfavorable attitudes may be just as impeding as actual obstacles in preventing people with disabilities from fully participating in communities and schools.

According to Nowicki and Sandieson (2002), one of the main issues with inclusive education is the attitudes of typical students toward people who have impairments.

2.4   Social Interactive Experiences of Students with Orthopaedic Impairment and their Non-Disabled Peers in the District

In the last few decades, inclusive education has advanced significantly, particularly in the west. The closing of specialist special education institutions in numerous countries in favor of an increase in the number of impaired students attending regular schools was a direct effect of this trend (United Nations Educational, Scientific and Cultural Organization, 1995). Research on the experiences of students with orthopaedic impairment has closely monitored this trend over the past few decades. It has long placed emphasis on outlining the elements seen to be important in establishing inclusive education as well as recognizing the separating mechanisms in educational environments (Pijl, Hegarty & Meijer, 1997). However, there is currently research being done on the experiences and outcomes of students with disabilities in inclusive contexts. More studies have been conducted on the social aspect of inclusive education over the past ten years (Koster, Nakken, Pijl & Van Houten, 2009).

According to Koster et al. (2009), the term "social participation" relates to four themes: friendships, social interactions, self-perception, and interactions between the student with disabilities and his or her peers. The core tenet of inclusive education and the social participation of students with disabilities are mutually dependent, which explains the increased interest in the social component. One of the key principles of inclusive education is that children who attend traditional schools with peers who do not have impairments benefit socially from doing so (Flem & Keller, 2000). It is

anticipated that adolescents with disabilities will have more opportunity for friendships and interactions with peers who are typically developing if they attend regular schools rather than special schools. Studies show that some children with disabilities struggle to fit in and make friends, despite the fact that most kids with disabilities seem to do so in traditional classes (Flem & Keller, 2000).

Knowing which factors influence the attitudes of peers who are typically developing is crucial because of the potential detrimental effects of unfavorable attitudes. In the end, this might result in useful interventions to anticipate, clarify, and control responses to the attitude object. A detailed investigation of these factors was lacking in a prior study on peers' perceptions, which did consider factors including gender, age, and experience with inclusive schools (Nowicki & Sandieson, 2002). Studies on the attitudes of students without disabilities have increased over the past ten years due to the growing trend toward inclusive education and the challenges experienced by students with disabilities in participating in society. According to Zindi, an overview of these studies' findings and factors relating to peer attitudes would be appropriate (1996). In research on students' attitudes, Zindi (1996) investigated how mainstream kids in Zimbabwe felt about their friends with disabilities. The findings indicated that respondents were more supportive of including people with impairments in mainstream society Zindi (1996). Particularly among female students, their favorability percentages were greater.

Negative attitudes, according to Nabors (1997), can lead to low peer acceptance, fewer friendships, loneliness, and even rejection and/or bullying. Young children with disabilities, such as those with orthopaedic impairments, may have negative effects as a result, such as trouble engaging in group activities, declining academic performance, dropping out of school, and/or serious aberrant behavior.

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Nabors (1997). Bullying and rejection could, in the worst-case scenario, have negative long-term impacts including depression and other mental health issues.

According to Mushoriwa (2001), attitudes are either the biggest impediment or the biggest advantage to the growth of inclusive education. They affect how we view problems, decide on course of action, and set objectives. A common belief is that attitudes affect human behavior and activities, with attitudes being seen as the cause and conduct as the effect, according to Mushoriwa (2001). According to Mushoriwa (2001), attitudes also include hopes, judgments, feelings, perspectives, aspirations, and sentiments. This suggests that attitudes affect how people perceive, value, assess, relate to, and treat children with special needs. The first step in achieving education for all, especially for people with disabilities and other special needs, is changing mindsets so that "education for all" means "education for all," not merely "ALL BUT," according to Vayrynen (2002).

Walsh (2018) indicated that, students with orthopaedic impairment deserve to have full access to all resources and social interactions that are present in the general education classroom. The ultimate goal of many schools is to create a classroom that has the least restrictive environment to meet the needs of all students, including those with orthopaedic impairment.

2.4.1 Peer interaction

At all levels of education, interactions between students with disabilities, especially those who have orthopaedic impairments, are crucial to students' social and emotional growth as well as their academic advancement. Children who struggle academically also display inappropriate conduct towards their peers and adults, according to Pellegrini and Blatchford (2000). Students with orthopaedic impairment are not an exception. They further noted that, when students with orthopaedic

impairment develop social and emotional skills, they are highly motivated to give out their best academic performance in the classroom. Pellegrini and Blatchford (2000).

In their study, Coolahan et al. (2000) looked at how peer pressure and academic motivation in school pupils relate to students with physical disability, particularly those with orthopaedic impairment. According to Coolahan et al. (2000), social contacts between students with orthopaedic impairment and their peers in the classroom are one factor that affects reading readiness. In an effort to address the factors influencing peer interaction in students with special needs, Nabors, Badawi, and Cheney (1997) conducted a study. They hypothesized that students with special needs, including those who have orthopaedic impairment, find it challenging to play with peers who do not have orthopaedic impairment. Nabors, Badawi and Cheney (1997) concluded that if teachers of students with orthopaedic impairment are able to promote positive social interaction among their peers and between students with and without orthopaedic impairment during the school day, students with and without orthopaedic impairment will benefit to a large extent. According to Kohler, Greteman, and Raschke, peer-mediated interventions "have a long history of support and are emerging as one of the most successful therapies available for addressing the social behavior of children" (2007, p.155). When students with orthopaedic impairments connect with their peers, they are developing lifelong skills important for their growth and development of their capacities in order to fit in the community to which they belong, thereby giving their fair share to the advancement of their communities.

2.4.2   Peer interaction with students with orthopaedic impairment during play

Peer connection and participation in play are crucial components of the inclusive learning environment for students with orthopaedic impairments. As a result of interacting with their environment, students with orthopedic impairments will be

able to develop their social and emotional skills (Pellegrini, 2000). Students connect with their peers during free play to build their own worlds. The social, cognitive, and emotional skills needed for development in school as well as in life as members of the society in which they are born and raised will not be acquired by students with orthopaedic handicap without this interaction (Pellegrini, 2000).

Students without disabilities should be respectfully helped by their peers in the classroom and by other students at the school, but only when the impaired student has expressed a desire for help (Pellegrini, 2000). Teachers should carefully monitor these contacts to ensure that they continue at a peer-to-peer level as reciprocity in connections is the key to long-term natural support (Papaoikonomou & Valor, 2016). Building on pupils' past knowledge, systematic instruction offers new information in a logical manner. The curriculum must serve as the basis for systematic instruction, which employs techniques including direct instruction, explicit teaching, and precision teaching methods (Papaoikonomou & Valor, 2016).   All of these strategies use language that all students can understand to communicate information to pupils explicitly and methodically. The teacher should make sure that each lesson is introduced by giving a summary of the material to be covered while using systematic instruction (Doabler & Fien, 2013).

It is recommended that concrete learning materials should be made available to students with orthopaedic impairment generally. These materials needs to be available, be accessible, and also be usable so as to decrease the need for assistance from adults and other peers (Doabler & Fien, 2013).

 Nabors (1997) indicated that students with orthopaedic impairment needs to engage in solitary play more than cooperative play with peers with or without physical disabilities. Solitary play does not give students with orthopaedic impairment greater

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opportunity to develop their skills, attitudes and values necessary to grow and develop. Peer interaction in preschool has an impact on the development of social skills of students with orthopaedic impairment in later life, according to Nabors (1997), who examined interactions between preschool students with special needs and their peers. The outcomes of related study, though, have produced conflicting findings.

There must be some standards set by the teacher or student for play to take place in order for students with orthopaedic disability to find meaning in play (Neary, 2010).

2.5 Assistance Given to Students with Orthopaedic Impairment by their Relatives

2.5.1 Relative support at the school

The lack of knowledge on support services for students with orthopaedic disability in schools has been a recurring issue in many research in poor nations like Ghana and Tanzania, according to Madriaga (2007). According to Madriaga (2007), it was not always obvious to students with orthopaedic impairments who was in charge of assessing their needs. What resources and privileges (or rights) were offered to them was also unclear Madriaga (2007). Students who have orthopaedic impairments struggle to prepare for higher education in addition to dealing with stress and anxiety (Madriaga, 2007). For many students with orthopaedic impairment, the aforementioned issues pose significant barriers to enrollment and access to formal education systems in colleges and universities in Madriaga (2007). These elements may result in low participation rates, lesson retention, and completion rates for students with orthopaedic impairment.

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Students with orthopaedic disabilities have less access to the infrastructure and overall educational environment, according to Croft (2010). In order for all students, both able-bodied and impaired, to learn more practically, Croft (2010) advises that action be done to guarantee that at least all pertinent teaching and learning resources are accessible (Croft, 2010). Through hands-on learning, students with orthopaedic impairments will be able to acquire critical knowledge and skills that will not only help them compete in the job/labor market but also allow them to pursue self-employment (Croft, 2010).

There is some evidence that students can achieve academically at a higher level in a regular school than they can in a segregated special school, and it seems that most people agree that inclusion is the morally and ethically most appropriate approach to education (Lindsay, 2003). However, there is conflicting information regarding the best ways to meet and support each student's unique educational needs, regardless of their skills (Lindsay, 2003).

Corbett (2001) recommends paying attention to what children with disabilities have to say about their educational experiences in order to support their needs and assist schools in developing inclusive practices, such as the implementation of curricula and organizational changes, along with individual students' learning outcomes, that enable each child with a disability to fully participate in the mainstream school environment (Corbett, 2001).

Effective support mechanisms are required, according to Lightfoot (1999), if students with chronic illnesses or orthopedic impairments are to benefit from attending a mainstream school. In order to study the effects of the illness or orthopaedic impairment on kids' school lives, Lightfoot (1999) recruited thirty-three (33) students from a variety of mainstream schools who were between the ages of

eleven and sixteen and had a chronic disease or orthopaedic impairment. According to Lightfoot (1999), the study's participants handled the impact of their disease at school by creating a network of friends among both students and instructors and by participating in all decisions regarding the support they would need at school.

This is further supported by the two-year study that Connors and Stalkers undertook in 2003 to look at young people's experiences with disability. They were able to assess the consequences of disability by speaking with 26 young people with disabilities (aged 7 to 15), 24 siblings (aged 5 to 19, and 36 parents. Findings from 2003 by Connors and Stalkers showed that the majority of young people with impairments felt happy most of the time. The main reasons for this enjoyment were achievement in school or in sports, as well as spending time with friends (2003). A student's ability to succeed in school depends on their ability to participate in class activities.

2.5.2 Experiences of students with orthopaedic impairment on support given by their relatives

Involving their families in their education is one of the best ways to ensure academic achievement for students with disabilities (Ferrel, 2012). All students benefit from family involvement, but students with orthopaedic impairment may need more parental involvement and advocacy than their classmates without disabilities to ensure they receive the same quality of education as the general student population (Ferrel, 2012). Students with disabilities frequently experience complex learning obstacles that necessitate extra care from teachers and involvement from their families (Ferrel, 2012). Their families perform a variety of supportive roles, including those of their advocates and those of persons who can give teachers, who occasionally may feel under pressure to satisfy the demands of various student groups, significant

insight into their particular needs (Ferrel, 2012). The possibility that disabled children will have effective and positive learning experiences is increased when families of kids with disabilities and educators collaborate as partners (Ferrel, 2012). It's true that in many nations, especially those where extended families are still the norm, as they are in South Africa where the majority of people live, it is deemed proper for young people with orthopedic handicap to stay at home (UNICEF, 2011). This means that many young students with orthopaedic impairment often have no say over any part of their lives which suggests that they have no (or limited) capacity to establish a sense of independence in any life arena.

According to UNICEF (2013), inclusive education requires access to resources outside of the classroom. It went on to say that parents may help in a variety of ways, including by providing accessible transportation, spreading awareness, and coordinating with the health and social sectors to get funds, equipment, and assistance. Because the family is acknowledged by the Convention on the Rights of Persons with Disabilities (CRPD) as the natural unit of society, and because the State is charged with supporting it, the process of ensuring the rights of students with orthopaedic impairment starts with helping their families and creating a home environment that is suitable for them. UNICEF (2013). Supporting students with orthopaedic impairment and their families under the CRPD is a human right issue. Students with orthopaedic impairment and their families have the right to an adequate standard of living and are also entitled to such subsidized or free support services as day care, respite care and access to self-help groups (UNICEF, 2013). Social protection for students with orthopaedic impairment and their families is especially important because these families often face a higher cost of living and lost

opportunities to earn income. Estimates of the additional costs of disability borne by families UNICEF (2013).

It is well known that families also incur opportunity costs in addition to medical, rehabilitative, and other direct costs because parents and other family members sometimes have to stop working or reduce it in order to take care of students with orthopaedic impairment. UNICEF (2013). (2013). More so than parents of kids without disabilities, parents of students with orthopaedic impairments endure poverty. When compared to students without orthopaedic impairment, students with orthopaedic impairment typically have worse educational, employment, living, and consumption outcomes. UNICEF (2013). Parents of children with orthopaedic impairments pay more for health care, which lowers their level of living compared to those of households without such children. Community-based rehabilitation (CBR) programmes – which seek to ensure that students with orthopaedic impairment have equal access to services and opportunities relating to health, education and livelihoods is an example of an intervention that is designed and run by local communities - critically, with the active participation of students with disabilities and their families (UNICEF, 2013).

The many disadvantages faced by kids with orthopaedic disability who reside in rural and indigenous areas can be effectively addressed through CBR. For instance, CBR teams from the Centre for Research and Post-Secondary Studies in Social Anthropology worked with UNICEF to foster the development of local support networks among the families of students with disabilities in a community outreach project for indigenous children in Oaxaca, Mexico (2013). Over a three-year period, the project saw improvements in social services, community-led wheelchair ramp building for public spaces, agreements for free care from state and federal hospitals,

and 32 additional enrollments of kids with disabilities in regular classrooms (2007-2010) (UNICEF, 2013).

In nations where they are stigmatized and their families face social or economic exclusion, many students with orthopaedic impairments are unable to even obtain an identity document. Due to rights violations, participation in society is significantly hampered for students with orthopaedic impairments. People who lack a formal identification may become invisible and are more vulnerable to abuse, according to UNICEF (2013).

The need to provide pupils with orthopaedic impairments with adequate legal protection under the Convention on the Rights of Persons with Disabilities (CRPD) is apparent (UNICEF, 2013). To change discriminatory social norms, states need to make sure existing laws are enforced and those students with orthopaedic impairment and their families are informed about their right to protection from discrimination, and how to exercise this right (UNICEF, 2013). The principle of 'reasonable accommodation' dictates that necessary and appropriate adaptations be made so that students with orthopaedic impairment can enjoy their rights on an equal basis with others. Relegating them to separate systems would be inappropriate, and will not ensure equity through inclusion (UNICEF, 2013).

Unless a competent authority determines that separating disabled children from their families is in each student's best interests, it is against their right to be cared for by their parents (UNICEF, 2013). If a student's immediate family is unable to care for or support them, the CRPD requires state parties to offer alternative care in the community or extended family, such as in a foster home. A handicapped member of the family is typically associated with higher living costs and lost income-generating opportunities, which may increase the likelihood of falling into or remaining in

poverty, according to UNICEF (2013). Poverty makes it more challenging for children with orthopaedic disabilities to obtain the essential services and assistive technology devices from parents and other relatives (UNICEF, 2013).

According to UNICEF (2013), social policies should consider the financial and time costs related to pupils with orthopaedic impairment. These can be offset with social grants, subsidies for transportation or funding for personal assistants or respite care. UNICEF (2013) asserted that cash benefits are easier to administer, more flexible at meeting particular needs, and also respect the decision-making rights of parents and students with orthopaedic impairment. UNICEF (2013), existing cash transfer programmes can be adapted so that families caring for students with orthopaedic impairment are not excluded or offered insufficient support.

In order to address the whole spectrum of difficulties faced by kids with orthopaedic impairment and their families, integrated interventions are necessary, according to UNICEF (2013). The impacts of disability span across sectors. A integrated early intervention program spanning the health, education, and welfare sectors would support the early detection and management of childhood impairments, according to UNICEF (2013). According to UNICEF (2013), early treatments have been demonstrated to result in greater gains in functional capacity, and removing obstacles earlier in life reduces the compounding effect of the numerous obstacles experienced by kids with orthopaedic disability (UNICEF, 2013). If school systems are willing and able to accept students with orthopaedic impairment and meet their needs, improvements in ability will have a greater impact, and a government program designed to promote the employment of people with orthopaedic impairment will make receiving an education more meaningful for them (UNICEF, 2013).

The National Disability Authority (2007) asserts that parents ought to be included in all facets of education. For a student with an orthopaedic handicap, the family is the primary source of education, and the majority of learning takes place at home. Parents need to be included in the inclusion process since they frequently work to provide educational opportunities for their kids, even those with orthopaedic impairment. According to the National Disability Authority (2007), parents in numerous nations have sued their governments, frequently with the help of parents' organizations, establishing precedents that allowed youngsters with orthopaedic impairment to attend ordinary schools. For instance, Inclusion Panama put pressure on the government of Panama to amend the rule mandating that students with disabilities attend school in a separate system. Disability National Authority (2007). As a result of its campaign, the government put a policy into place in 2003 to make all schools inclusive. Parents and teachers should work together to determine the educational requirements of students with impairments. Disabled students do better when their families are involved, and doing so is quite inexpensive National Disability Authority (2007).

.   According to Healey et al. (2011), stereotypes about students with orthopaedic impairments' skills encourage harmful beliefs and are reflected in a vicious cycle of discrimination (2011).

There is some evidence that students with orthopaedic impairment, in particular, can achieve academically at mainstream schools as opposed to segregated special schools, and there seems to be widespread agreement that inclusive education is the morally and ethically most appropriate type of education (Lindsay, 2003). Regardless of a student's abilities, there is conflicting information available regarding the best ways to fulfill and support their individual educational needs (Lindsay, 2003).

Paying attention to what young people with disabilities have to say about their educational experiences can be one approach to learn how to best serve them and assist schools in developing inclusive policies. These methods might involve making organizational and curriculum improvements as well as particular student learning outcomes that enable every student with a handicap to engage fully in the regular classroom setting (Corbett, 2001).

2.5.3 School environment

School administrators and teachers must be aware of the contextual characteristics and organizational elements of various school settings for a more consistent and conscientious practice. It is important to include accommodations for kids with orthopaedic disabilities in the educational setting (Egilson & Traustadottir, 2009). Class size, the percentage of kids who also have special education requirements, the seriousness of those needs, or interactions with peers are all concerning traits of the population of pupils who have orthopedic disabilities (Egilson & Traustadottir, 2009). Particularly important are the social and cultural characteristics of the learning environment, such as how much it respects and accommodates individual needs (Egilson & Traustadottir, 2009). According to National Council on Disabilities research from 2002, buildings and facilities created, built, or upgraded using federal funds must meet physical accessibility standards, including having designated passenger loading zones for cars carrying people with disabilities. According to the National Council on Disabilities (2002), public building entrances should be covered by a canopy or roof overhang to protect them from the elements. Additionally, buildings with stairwells should have elevators, ramps, or lifts as well as automatic door openings and lowered counters for people who are not ambulatory. The National Council on Disabilities removes barriers from doors,

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corridors, restrooms, waiting spaces, and examination rooms (2002). Rooms ought to be big enough to fit people using wheelchairs and other assistance devices. The minimum width requirement for hallways for wheelchair accessibility is 36 inches.

According to a National Council on Disabilities report from 2002, it is crucial for many stakeholders to express their perspectives on what it's like for students with orthopaedic impairments to attend college or university. Numerous participants highlighted the difficulties orthopedically impaired students had adjusting to their surroundings (2002). The majority of them said that because of the hostile environment, it was difficult for students to live normal lives. Due to this circumstance, individuals with orthopaedic disability do not enjoy their time spent in a school, college, or university setting. According to the National Council on Disabilities (2002), accessing dining halls, lecture halls, restrooms, playgrounds, and dorms is typically difficult for students with orthopaedic impairments, particularly when those services are far away.

2.5.4   Instructional tasks and methods

The needs of kids with orthopaedic impairments can frequently be met through modifications, extra or differentiated instruction, as well as adaptations of educational activities that may reduce the need for adult assistance (Egilson & Traustadottir, 2009). It is crucial that instructional tasks and procedures be flexible and accommodating to take into consideration the level of functioning of pupils with orthopaedic impairments (Egilson & Traustadottir, 2009).

To provide the student with an orthopaedic impairment access to educational opportunities, instructional strategies and tasks may be modified from the way that instruction is typically delivered or may be applied differently to the general education curriculum (Egilson & Traustadottir, 2009). Whenever necessary, teaching

approaches and assignments should be modified and customized to prevent stigmatization (Egilson & Traustadottir, 2009). It is important to make an attempt to provide different educational strategies for children with orthopaedic disabilities within the context of conventional school activities and across diverse school settings in order to respect them.

According to Egilson and Traustadottir (2009), modifications and tools may help students with orthopaedic impairment complete crucial educational tasks, reducing their need for adult support (Egilson & Traustadottir, 2009). It could consist of high-tech gadgets like adaptable computers, software, switches, and augmentative communication devices, or low-tech modifications like pencil grips and modified work surfaces (Egilson & Traustadottir, 2009). According to other studies, changes are needed in a wider range in addition to or instead of adult aid if we wish to increase the opportunities for students with orthopaedic disabilities (Egilson & Traustadottir, 2009). Orthopaedic-impaired students must take part in all classes and extracurricular activities (Pivik, McComas & LaFlamme, 2002; Schenker, Coster, & Parush, 2006). The demands of those kids must be met with the accessible technology in order to enhance or enable active involvement, interpersonal contact, and independence for students with orthopaedic impairment in a particular situation. Success depends on successful engagement with important stakeholders within external support services (Egilson & Traustadottir, 2009).

2.5.5 Organisational issues

Considerations should be made regarding staff characteristics, the number of educators in the classroom, the accessibility of support services, and the training and experience of staff members in order to supply the required number of instructors in the school (Egilson & Traustadottir, 2009). Recognizing the amount to which laws

and procedures governing educational processes are influenced by societal norms and values may aid in bringing to light different unseen elements, such as formal and informal communication channels and practices (Egilson & Traustadottir, 2009). Clear guidelines must also be established for the desired engagement and behavior of students with orthopaedic disabilities in various contexts.

Schools need to figure out how to support practice-based competence, creativity, and diversity (Egilson & Traustadottir, 2009). The educational system must ensure that forums and enough time are available for collaboration, as well as establish arrangements for teaching assistants to strengthen their collaborative skills. Enhancing system structures is also essential to guarantee that the best services are provided on an ongoing basis in order to support staff, coordinate efforts, and eliminate inconsistencies. 2009's (Egilson & Traustadottir).

2.6   Summary

This chapter reviewed related literature on the research topic, empirical literature and the theoretical framework. The chapter was discussed under the following strands: the extent to which pupils with orthopaedic impairment have access to school facilities, experiences of pupils with orthopaedic impairment during teaching and learning, experiences of pupils with orthopaedic impairment as they interact with their peers without disabilities, and the extent to which pupils with orthopaedic impairment receive assistant from their relatives at home and in the school. The theoretical framework was also discussed. However, in the current study, pupils with physical disabilities were studied in an inclusive school in Ghana's Sekyere South District.

CHAPTER THREE

METHODOLOGY

3. 0   Introduction

This chapter describes the methods and procedures that were used to collect and analyse data for the study. The topics covered included sampling methods, sample sizes, instruments, data gathering procedures, and data analysis.

3.1   Research Approach

The study used a qualitative research methodology to investigate the perceptions of physically challenged students at a few basic schools in Ghana's Sekyere South District of the Ashanti Region. Understanding human experiences in an interpretive, humanistic manner is the main goal of qualitative research (Ronald, Darlene & Sakile, 2007). The study was a good fit for a qualitative technique because it examined individuals' actual experiences. The mechanisms that underlie human behavior are investigated in qualitative research, which uses explanatory procedures, interviews, case studies, and other more intimate methods (Salkind, 2009). The conclusions of qualitative investigations are invariably reliant on personal narratives and experiences that cannot be quantified, counted, or controlled.

According to Crisp (2000), a qualitative method depends on respondents' opinions when asking open-ended or generic questions. It also involves gathering and analyzing data that is primarily verbatim from respondents. It also refers to the collection, examination, and interpretation of significant narrative and visual data in order to comprehend a particular topic of interest (Springer, 2010). Qualitative methods also have the advantages of flexibility, thorough study, and the capacity to examine a variety of social situational factors (Patton, 2002). Qualitative research

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approach considers collecting information from participants in order to understand the phenomenon under the study from the perspectives of those involved in the research (Ary, Jacobs & Sorensen, 2010).

3.2   Research Design

A phenomenological study approach was adopted to examine the experiences of children with orthopaedic disabilities in inclusive schools in the Sekyere South District of Ghana's Ashanti Region.. According to phenomenology, every experience has a genuine essence or structure. A phenomenological investigation explains the significance of people's actual, first-hand encounters with an event. What they experienced and how they felt are described in this account (Creswell, 2012). Ary, Jacobs, Sorensen and Razavieh (2010) explained that phenomenological studies are meant to explore participants' perspective and experiences of a phenomenon. According to Creswell (2007, 2012), the fundamental goal of phenomenology is to reduce unique encounters with a phenomenon to a description of its universal essence, or a comprehension of the very nature of things. Vanderstoep and Johnston (2009) stated that phenomenology asks for the very nature of a phenomenon, for that which makes a something what it is, and without which it could not be what it is. A phenomenologist, according to Vanderstoep and Johnston (2009), sees things as they actually are, establishes their meanings through explanation and illumination rather than through taxonomic approaches or abstractions, and develops theories through dialogic relationships between the researcher and the researched (Cohen, Manion & Morrison, 2007). This study's goal was to learn about the experiences of children with orthopaedic disabilities in inclusive classrooms in the Sekyere South District of Ghana's Ashanti Region. It was therefore imperative to determine the students' experiences through a phenomenological study.

Table 1: Number of students

Gender	Number of students	Number of students on wheel chairs	Number of students on crutches
Male	7	2	3
Female	5	2	5
Total	**12**	**4**	**8**

The respondents for the study comprised 12 students with orthopaedic impairment at the six basic schools in Sekyere South District of the Ashanti region of Ghana. They had a 15-year average age and were made up of 7 boys and 5 females. Four (4) of them were using wheelchairs, and eight (8) were using crutches.

Table 2: Grade levels and ages of students

Grade Level of students	Male	Female	Average Age
JHS one	2	2	12-13
JHS two	2	1	13-14
JHS three	3	2	14-15
Total	**7**	**5**	

The respondents were made up of students from Junior High School one, two and three. Two males with orthopaedic impairment were in JHS one while two females with orthopaedic impairment were also in JHS one. In JHS two which comprised three respondents, one female and two females were respondents with orthopaedic impairment. Three respondents were males and two respondents were females with orthopaedic impairments in JHS three. out of the twelve respondents two males and two females in JHS one were aged twelve and thirteen respectfully. Two males in JHS two were of age thirteen while one female was of age fourteen. One out of the two females was of age fourteen, while the remaining female and the three males were all of ages fifteen.

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3.3 Sample Size

The sample size was made up of 12 students with orthopaedic impairment. Students with orthopaedic disability were chosen from six elementary schools in Ghana's Sekyere South District of the Ashanti Region. These schools were selected because they have students with orthopaedic impairment. Moreover, the experiences of students with orthopaedic impairment is important and central to the study.

Table 3: Sample size of the participants

School	Population	Male	Female
Konya D/A JHS	2	2	0
Asamang SDA JHS	3	1	2
BoanimD/A JHS	2	1	1
Jamasi R/C JHS	2	1	1
Wiamoasi D/A JHS	2	1	1
Tano- OdumasiSDA JHS	1	1	0
Total	**12**	**7**	**5**

3.4 Sampling Technique

Homogeneous type of purposive sampling technique was used to select the sample size for the study. Homogeneous type of purposive sampling technique was employed to select the sample because the respondents have similar characteristics. The researcher purposefully sampled students with orthopaedic impairment who were in the best position to provide relevant information relating to their experiences. For the purpose of the study, the researcher identified pupils in the chosen schools who were using wheelchairs, crutches, or other orthopaedic devices. To maximize the use of data from small samples, the homogenous type of purposive sampling technique was used (Macmillan & Schumacher, 2001). The power and logic of purposeful sampling is that a few cases studied in depth yield insights about the topic (Macmillan & Schumacher, 2001). In purposive sampling, which includes homogenous sampling,

Avoke (2005) argued that the researcher handpicks the cases to be included in the sample based on their assessment of typicality. Fraenkel and Wallen (2009) added that in purposive sampling, researchers utilize their judgment to choose a sample that they think would yield the data they require based on past knowledge.

3.5   Instrumentation

The respondent's age range was between two and five, hence a mini-focus group interview was done (Kamberelis & Dimitriadis, 2005). Focus group research's major goal is to gather respondents' opinions, feelings, beliefs, experiences, and reactions in a way that is not possible using other techniques. The researcher adopted the mini-focus group because the participants are small in number, and are also difficult to reach as the schools are far away from each other. Under this circumstance, the researcher can convene a small group of between two to five participants (Kamberelis & Dimitriadis, 2005). Since the participants were allowed to speak from their own experiences, each word they chose to express their story served as a microcosm of their awareness. Due to the interviewees' dispersion, a little focus group was used, consisting of three respondents in each of the four groups (Kamberelis & Dimitriadis, 2005). In order to obtain replies from the participants in the micro focus group, a semi-structured interview guide was used. According to Macmillan and Schumacher's recommendations, the questions were written so that each respondent could provide a unique response (2001). The design of the items included consideration of the major challenges posed by the study topics.

Greef (2005) stated that while group dynamics may be less of a concern and all respondents should be given the opportunity to speak, tiny focus groups offer an intimate setting where the researcher would be able to get rich and in-depth information. However, conducting little focus groups might be difficult for

interviewers who don't have control over the conversation (Greef, 2005). As a result, each group was limited to a maximum of three pupils in order to retain control over their interactions. Additionally, it could be difficult to distinguish between group members' voices during transcription if micro focus groups are audio recorded. It becomes challenging to take notes because so much is happening (Creswell, 2002). Each student was given the opportunity to identify themselves before answering a question in order to prevent this. The interactions in the mini focus groups also enabled for the probing and explanation of topics and provided the broadest and most in-depth examination to look at the nature of the phenomenon among the school children Creswell (2002).

There were four mini focus groups; each group was made up three participants. The interview guide was designed strictly in line with the research questions which sought information on respondents' experiences at the basic school level. On average, each interview section was anticipated to last for 20 to 30 minutes. Fraenkel and Wallen (2009) noted that interview is one of the main techniques used to collect data in qualitative research. In the interviews, the researcher included probes and prompts to aid further exploration of his own line of questioning. The probes and prompts helped to explore and develop views of respondents and to prevent respondents from going off the main line of questioning (De Leeuw, 2001).

The themes in the research questions—access to school facilities by students with orthopaedic impairment, experiences of teaching and learning for students with orthopaedic impairment, interactions between students with orthopaedic impairment and their peers who are not disabled, and the support received by students with orthopaedic impairment from their relatives—were used as a guide for the interview questions.

A semi-structured interview is a type of qualitative research method that combines a pre-determined set of open-ended questions and the interviewer has the opportunity to ask further questions for responses and clearer understanding of issues bothering on a particular theme or topic (Burgess, 1984). Burgess (1984) asserts that an interview is conducted formally between the interviewer and the interviewee following an established interview guide. The interview adheres to the script in order to ask and respond to pertinent questions without veering off topic. (1984, Burgess). The interview's adaptable format enables the researcher to prompt or nudge the subject if they seem interested in what they are saying or want to know more. (1984, Burgess). With this approach, the researcher is free to press the subject for more information or pursue a different line of inquiry that has been opened up by what the interviewee is saying (Burgess, 1984). Additionally, semi-structured interviews give informants the flexibility to convey their opinions in their own words..

3.5.1 Validity

Validity is the degree to which an instrument measures what it is designed to measure. The validity of an instrument depends on how relevant it is. To ensure face validity, the researcher read through the interview guide several times to identify and correct errors such as grammatical errors, punctuations and to avoid double - barraled questions. The instrument was then given to the supervisor to assess it (Construct validity) and make recommendations to better the instrument.

3.5.2 Pre-testing

In ensuring reliability of the instrument, the researcher conducted a pre-test of the instrument on three students at Mamponteng R/C JHS. Mamponteng JHS was selected because the students selected for the pretesting exercise had similar

characteristics with the study population. Some of the students used wheel chairs and others used crutches to aid their movement. The purpose of the pre-test was to detect ambiguities and deficiencies in the instrument for corrections and modifications so as to improve the internal consistency of the instrument (Alumode, 2011, Vanderstoep & Johnson, 2009). The pre-testing revealed some double-barraled questions which were corrected make the instrument better. Furthermore, apart from the comments and suggestions made, the thesis supervisor provided his expert judgement to enable corrections to be made.

3.6 Procedure for Data Collection

Creswell (2002) asserted that it's imperative to show respect for the environment in which research is carried out. Creswell claims that showing respect for the schools involves asking permission to attend. The researcher went to the school to familiarize himself with the environment and to schedule meetings with administrators, instructors, and students. The appointments were set up such that it was possible to meet all of the study participants who had orthopaedic impairments in one convenient location within each school. The researcher sent the letter to the heads of the schools during the familiarization tour that had been drafted on his behalf by the Department of Special Education, UEW (APENDIX A) (Appendix A). The letter provided specific study objectives. In addition to the letter, the researcher provided an explanation of the study's goals and said that the results were only to be used for academic purposes. Additionally, the researcher explained why they selected their school and how much time they would spend there.

An interview guide (Appendix B) was used to conduct the interview inside the school. Each interview with the tiny focus group in each school lasted between 45 and 60 minutes. The interviews were primarily conducted using tape recorders. Avoke

(2005), citing Fettermen (1998), asserted that the use of tape recorders can hinder certain interviewees from being completely honest and that other interviewees may fear revenge because their voices will be audibly captured on the recording. As a result, the students received the requisite assurances of anonymity throughout, and consent was obtained before recording their verbal responses. The interview was then done by the researcher using the interview guide.

3.7 Ethical Considerations

Respondents were properly told that the study was voluntary and that they might discontinue at any time if they so desired. Besides, they were not to mention their names as a way of ensuring anonymity. The names of the schools were not also stated or mentioned. This was done to protect the identities of respondents. Other considerations included (a) participants' confidence that their information would be treated with confidentiality and (b) their responses were going to be was used for the disclosed purposes. The researcher cultivated a good working relationship with the respondents; and this, hopefully helped to elicit the desired responses for the study. The researcher conducted the interview by visiting two schools a day and interviewed them at an agreed conducive location within the premises of each school visited. This was also done in a way that, attendance of respondents in their classes could not get disrupted. Additionally, it was promised to the respondents that they would have access to the study's findings.

3.7.1 Trustworthiness

Trustworthiness of the data is one of the goals of a qualitative researcher (Guba & Lincoln, 1989). A qualitative researcher does not impose strict controls on conditions of the study but encourages a flexible research methodology, which is

difficult to replicate. The researcher acknowledged that the sample was typically small, but the quality of work and in-depth interview emerged from each participant, which is significant. Shenton (2004) listed the recommended provisions for increasing trustworthiness; three provisions were mentioned in the work of this qualitative study. To ensure trustworthiness, the researcher read the designed interview guide repeatedly to identify errors such as grammatical, punctuations, and avoidance of double - barreled questions and other mistakes that may be occur. The interview guide was then given for peer review and was then given to the supervisor to also assess it, and make recommendations to better the trustworthiness of the interview guide.

3.7.2   Dependability

Dependability is the extent to which research procedures are documented, enabling a third party to oversee, audit, and assess the research procedure. Dependability is the consistency and dependability of the research (Sandelowski, 1986). It is the consistency of facts over time and under varying circumstances. Dependability establishes the research study's finding as consistent and repeatable. To ensure dependability of the interview guide, the interview guide was modified through peer review, and sugestions, comments made were given for expert judgment by the supervisor of the study (Sandelowski, 1986). The corrections, suggestions and recommendations were then effected for pretesting.

3.7.3   Confirmability

This was based ondata-oriented approach. The researcher carefully gathered and processed the study. The researcher examined the perceptions, recognized personal biases and then identify their effect on them as researchers (Shenton, 2004). The personal insight and understanding of the researcher helped improve the base of

the study being investigated Marshall and Rossman (2011). The researcher conducted the study rigorously and intelligently, and the results of the study could generate relevant discussions.

3.8   Analysis of Interview Data

The study of the interview data was guided by key themes that arose from the data gathered. Every interview's transcription was completed in the first step, and words, sentences, and concepts that served as the foundation for more in-depth coding were highlighted. Utilizing a three-tiered technique for open (first tier), axial (second tier), and selective coding, the interview transcriptions were used to analyze the data (third tier). The analytic coding method was chosen because it made it possible to divide interview data into smaller chunks that were then arranged according to important factors that emerged from the research questions (Strauss & Corbin, 1998).

Robinson (1996) described coding as the process of labeling certain text sections by the researcher. Bogdan and Biklein (1992) noted that coding enables the categories and patterns emerging from data to be decided in advance and facilitates the interpretation of smaller units because the analysis begins with the researcher reading all of the data to get a general sense of the perspectives of the respondents. The responses were categorized and in line with the theme that emerged from each of the research questions in the first tier (i.e., open coding) of analysis by reading interview transcripts line by line, noting words and phrases relevant to the subject, and continuously comparing this coding process to the data. The first phase of the research process is known as open coding, according to Strauss (1987), who is quoted by Mbelu (2011). This is when the researcher carefully reads the field notes, interview transcripts, or any other materials and assigns codes for subjects. Similar reactions led

to the formation of concepts. Similar thoughts were grouped together to form larger groups or themes.

Open coding divided the interview data into concepts and categories, whereas axial coding, the second level of coding, created new groups of data by creating linkages between the main categories and subcategories of the data (Mbelu, 2011). In the last stage of analysis, selective coding was utilized to establish a core category and carefully connect all other categories to it. A section of the literature was made available to back up the conversations. The social learning theory of Bandura (1977) was also utilized to enhance the topic.

CHAPTER FOUR

ANALYSIS OF RESULTS AND DISCUSSIONS OF FINDINGS

4.0   Introduction

This chapter presents the results and discussions of findings from the study. The themes that arose from the interview data gathered on the themes of the research questions were considered in the analysis;

- What are the experiences of students with orthopaedic impairments concerning access to facilities in the school?

- What teaching and learning experiences do kids with orthopedic impairments have in the classroom?

- How do kids with orthopaedic impairments and their peers without disabilities engage socially in the district?

- What are the experiences of students concerning the assistance they receive from the school?
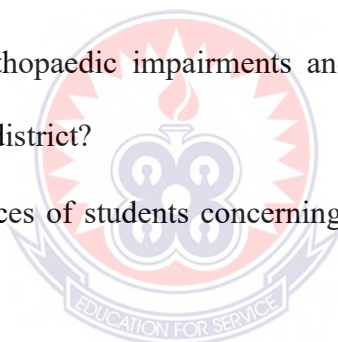
4.1   Research Question 1

What do pupils who have orthopaedic impairments think about access to facilities at the school?

The study's findings showed that kids with orthopaedic disabilities had trouble getting to amenities at different schools. To some extent, they had difficulties in participating in sporting activities due to stigmatisation and inappropriateness of the playing field. Some of the participants were unable to access the school library and ICT laboratory as a result of narrow doors to the rooms, slippery floors, and uneven walk ways.

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School library is one of the facilities in the school which facilitates teaching and learning of students including students with orthopaedic impairment.

4.1.1 Access to school library

The focus group engagement with the students revealed that there were difficulties that students with orthopaedic impairments encountered and that prevented them from using the school libraries. These difficulties included narrow doors to the library, slick flooring, and slippery staircases. A student from School "A" attested to this by saying:

A pupil affirmed this assertion in the following comments:

> *'Even though there are ramps at the entrance to my classroom, it has no rails to support our movement, I normally struggle with the wheelchair, it is my wish that the school authorities do something about it'*(Verbatim expression by a student in Group 2).

Another student added the following comment:

> *'Though I do visit the library moving around looking for book is quite difficult going through the lanes. The table and chairs obstruct my movement'* (Verbatim expression by a student in Group 1).

> It can be deduced from the expressions made by the respondents that; they have challenges accessing the school library. these challenges are as a result of structural defects such as narrow doors, poor arrangement of furniture in the library among others.

The school playing field is another facility that helps to promote socialization of students and improves academic performance as well.

4.1.2   Access to school playing field

On access to the school playing field,

One student also said:

> *'In my school, we do not have a large playing ground but most at times we are made to sit at one place whiles our friends will be playing.It is our wish that there will be enough playing material so we can also enjoy ourselves during break'*(Verbatim expression by a students in Group 2).

Another student had this to say:

> *'Sometimes I get injured whiles playing because the playing ground is not friendly it has a lot of hill(slopes) which turns us away during the break time'*(Verbatim expression by a student in Group 4).

Another student added:

> *'For my school the playing ground is very nice, but I don't play for a long period because I am not strong to do more running, I get tired I wish there are more toys to play with during the break so I will also be happy like my other friends'*(Verbatim expression by a student in Group 1).

It can be deduced from participants verbal responses that, they had challenges including undulating nature of the playing field, roughness of the playing field and stigmatization by their colleagues without disability in access to the school playing field. There ware also inadequate playing materials like footballs, handballs, javelin throws among others making it difficult for them to participate during games.

4.1.3   Access to a lab for information and communication technologies

The school's information and communication technology lab is open to students, however

Onestudent remarked that:

> *'For our ICT laboratory, it is quite ok for learning only that i have difficulty with how the desktop computers are placed on the table. They are higher for me, I need a low table and there are no support systems and I have no place to keep my clutches'*(Verbatim expression by astudentin Group 2).

One student added:

> *'I cannot use my wheel chair to access the information and communication technology laboratory, the path way is not good for me. I am always in class whenever it is time for ICT practicals reading my ICT textbook. I wish to join my friends in the ICT lab. I wish one day I will manage to get inside and also use the computers'* (Verbatim expression by a student in Group 3).

Another student had this to say:

> *'One thing I wish it will be done in my school is for the authorities to build more rumps and concrete walk ways for easy movement to the school ICT centre'* (Verbatim expression by a student in Group 4).

From the expressions by respondents, the students had challenges such as narrow doors, slippery floors, improper arrangement of furniture, defective cases, inappropriate placement of computers on tables and defective ramps in accessing their ICT laboratory.

4.1.4 Access to the school toilet/urinal facilities

As far as access to toilet/urinal facilities in the school is concerned, the following comments were made by students:

One student indicated that:

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> *'The floor that I will walk on with my crutches is slippery, so am afraid*
> *I may fall down. So I like going to the bush to urinate or do toilet'.*

Another student had this to say:

> *The door that I will pass to enter is too small because am fat, and the*
> *clutches too, I cant enter with it unless I turn myself, but I cant also*
> *walk when I turn myself.*

It is obvious from the students' comments that, there were limited facilities in the schools; and those few facilities that exist in the various schools were below standard. This made academic life difficult for pupils with orthopaedic impairment. Substandard floors and doors to toilet and urinal areas posed challenges to respondents with orthopaedic impairments.

4.2   Research Question 2

What kind of learning and teaching experiences do children with orthopedic impairments have in the classroom?

One theme that emerged from the analysis of research question two was the extent to which students with orthopaedic impairments were involved in teaching and learning activities.

4.2.1   Involvement of students with orthopaedic impairment in teaching and learning

As far as involvement of students with orthopaedic impairment in teaching and learning was concerned, the following comments were made by the students:

Astudents remarked:

> *'For our school the teachers are doing well with their teaching only*
> *that during practical lessons the teaching learning materials are not*
> *enough for the entire class. Sometimes I want to practice some of the*

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lessons on my own but the materials are not many. I wish my teacher would purchase more supplies so I could have some to use for independent practice. (Verbatim expression from a Group 4 pupil.)

Another student had written the following:

In our school the teachers are doing well but sometimes they need to consider those of us with special needs when it comes to class work and other assignments because we need more time to complete our assignments. We get tired after pushing my wheel chair around'. (Verbatim expression by a student in Group 2)

Another student commented this way:

'Most at times my class teacher will not involve me in a demonstration lesson because I have difficulty with movement, but sometimes I wish to be part of the team and also to understand the topic very well. An example is when we were having a practical class on the topic how to produce light using the dry cells' (Verbatim expression by a student in Group 4).

Respondents views' on their involvement in teaching and learning was that, they had challenges getting access to teaching and learning materials. This was due to inadequate teaching and learning materials that, mostly, were not enough for all of the students to manipulate or see at the same time. and touch at the same time. One group or one person would observe and pass it on to another. Before it got to those at the end of the queue who are mostly students with orthopaedic impairment, it was time for the teaching and learning materials to be taken back. Students with orthopaedic impairments were less involved in practical lessons as a result of their disabilities.

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4.2.2 Experiences concerning teaching and learning

The following are the replies from the students with orthopaedic impairment regarding their experiences while teaching and learning:

A student noted:

> *'Sometimes I have nobody to talk to when I am taught and the topic seems difficult. In class I have no body to assist me with my class work my teacher will be helping the other children but will be shouting on me to bring my work for marking because of such situations sometimes I don't want to be in school'* (Verbatim expression by a student in Group 3).

Another student added:

> *'My class teacher always gives me extra time to finish my work but my peers sees me as a special child. I wish to be treated like my friends they are not given any special treatment'* (Verbatim expression by a student in Group 1).

A third student opined:

> *'I have only one friend who help me with my class work and also move me around the school compound, but in his absence no one really care about me I do things by myself without any help. Sometimes I am confused on whether people love me, at times I want to stay home'* (Verbatim expression by a student in Group 3).

One student also noted that:

> *'Most teachers are ready to give us extra time or additional time for us to complete our class exercise but other teachers will always shout on us and say we are lazy and the last to submit class work'* (Verbatim expression by a student in Group 4).

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It can be deduced from the responses that, students with orthopaedic impairments experienced social stigmatization and mockery during teaching and learning. Their non-disabled peers regarded them as special when given extra time to complete tasks. They faced stigmatization from their non-disabled peers as a result of their disability. Others made mockery of them when they made mistakes when answering teachers' questions orally.

4.2.3   Experiences on adaptation of teaching and learning methods

With regards to adaptations of teaching and learning methods, students made the following comments:

A student commented:

> *'Sometimes the practical activity that teachers used does not suit my condition so they will ask me to stay away because of my physical condition. At a point I feel distracted and ask myself why this condition why should God create me in such condition' (*Verbatim expression by a student in Group 2).

Another student remarked:

> *'If the teacher use materials to teach a topic, I understand it better than if he does not use materials. Sometimes, I feel afraid to ask him questions if I don't understand because am afraid he may shout on me because of my condition'* (Verbatim expression by a student in Group 3).

As far as adaptation to teaching and learning methods was concerned, students with orthopaedic impairment had a challenge in social interaction in class with their peers without disabilities. From the responses, it could be concluded that teachers did little to educate the class on disability issues in order to enhance acceptance by all.

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4.2.4 Suggestions for improving pedagogy

On suggestions for improving teaching and learning for students with orthopaedic impairment. Students made the following remarks:

One student indicated that:

> *'I always feel tired when our teacher take us outside to go and look at a material he is teaching in our topic. Any time we come back, I feel tired and always sleeping so I don't like going out if he says the class should go out and look at something. I want to always draw the materials they go out to see when he is teaching so that I can also see because I always get tired when I go out, and also feeling asleep'* (Verbatim expression by a student in Group 3).

Another student indicated that:

> *'He should put me in a group with my friends who normally help me when I need help. I want to be with those who like me because they make me happy and explain to me things they understand'* (Verbatim expression by a student in Group 1)

One student suggested that:

> *'He should always give us more teaching and learning materials so that every one will get his or hers, or two people sharing one materials so that I can get to see and touch it. Sometimes, they insult me and don't give me if we are many in a group. I will be the last person to see or hold the material, and before it gets to me the teacher will say is time so I will not see or touch it at all'* (Verbatim expression by a student in Group 2)**.**

It can be deduced from the responses that, students with orthopaedic impairments had challenges with some of the teaching pedagogies, such as field trips to observe sceneries and other objects of learning. Walking outside

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the class with their clutches made them tired and they lost concentration in class that affected their academic performance.

4.3   Research Question 3

What are experiences of students with orthopaedic impairment and their non disabled peers during social activities in the District?

The information gathered during focus group interviews was used to respond to this research question. The analysis focused on three themes that arose from the data: (1) friendship with their classmates without disabilities, (2) cooperative engagement with their peers without disabilities, and (3) participation in extracurricular activities that their peers without disabilities participated in.

4.3.1   How often non-disable peers interact with students with orthopaedic impairment

With regard to how often non-disabled peers interact with those with orthopaedic impairment, the following comments were made by the students:

A student said:

> *'At first my mate rejected me; some were not come to me or sit by my side. But with the help of the Head Master who explain my condition and the nature of my disability, most of my school mate have shown interest in giving me a helping hand especially coming to school in the morning they help me with my school bag and also help me to cross the bridge on the way. I wish everybody will accept me in the school and take me as a friend'* (Verbatim expression by a student in Group 4).

Another student had this to say:

> *'For me making friends in school is really a difficult task sometimes you talk to someone and the person fells reluctant to respond. I feel to down and disappointed to see such people in my school. I wish one day my mum will change my school for me'* (Verbatim expression by a student in Group 2).

Two students expressed their views as follows:

> *'Our friends do dully me a lot and even prevent us from playing football. If we have the strength we will fight back'* (Verbatim expressions by a students in Groups 2 and 4).

One student had this to say:

> *'It is not easy for me to make friends because people in this school are not friendly at all, they are not ready to accept me some even call me names because of my disability. Why should God create me like this? I wish to be like my friends so I can play throughout the day'* (Verbatim expression by a student in Group 3).

Students' comments indicated that students without disabilities did not involve students with orthopaedic impairments in their interactions except when, there is direct intervention by the authorities which motivates them to engage them in socialization. It was clear that students without disabilities lacked awareness of the skills that students with disabilities held in relation to extracurricular activities and a desire to ensure their participation, which led to their exclusion.

4.3.2 Activities non-disabled students engaged in with their orthopaedic impaired students

Regarding activities that students without disabilities engaged in, with their peers with orthopaedic impairment, the following comments were made by students with orthopaedic impairment.

One student commented:

> *'Truly my friends do support me, sometimes they help me with my homework, help me to be moving around the school compound especially when I want to buy something at the school canteen'* (Verbatim expression by a student in Group 3).

Another student noted that:

> *'My mate are lovely they show love and care, they also support me by providing me with food, helping me with my class work and bringing me to school all the time. However, some do not show any support they are not fair to me even when I call on them they feel reluctant to assist me'* (Verbatim expression by a student in Group 1).

It is clear from the comments that, students without orthopaedic impairments did not interact with their counterparts with physical disabilities. They studied together with them, helped them in buying food and other things in the school common market, but they did not involve them in activities such as sports. The interactions that took place between students with disabilities and those without disabilities were sometimes as a result of gifts students without disabilities could get from their counterparts without physically disabilities.

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4.3.3 Non-disabled peers who are happy and ready to interact with students with orthopaedic impairment.

The following comments were made by students without disabilities who were happy and willing to interact with students with orthopaedic impairment.

One student stated:

'No, those who stay close to me at home are always happy to play with me. They eat with me, help me do my class exercise and homework' (Verbatim expression by a student in Group 2)

Another remarked:

'No, those who interact with me are those who are related to me like my brothers, sisters, my uncles children, my aunt's children and those who always come to our house' (Verbatim expression by a student in Group 1)

A student acknowledged:

'No, not every body likes me. It is only my brothers children who play with me and also help me when I want to buy food and water to drink' (Verbatim expression by a student from Group 3)

It can be deduced from the comments above that, majority of students without orthopaedic impairments who interacted with students with orthopaedic impairments were relatives and close friends. Many of students without disabilities who helped students with orthopaedic impairments to complete their assignments at home and in school were relatives too. Students without orthopaedic impairments played games during break time with their relatives with orhopaedic impairments as well. However, some of the students without orthopaedic impairment did not assist students with orthopaedic impairments whenever they needed assistance.

4.3.4 Views on what needs to be done for all non-disable students to interact with students with orthopaedic impairment

On what needs to be done for their non-disabled peers to interact with those with orthopaedic impairment, the following comments were made by the students.

One student said:

> *'I think what needs to be done for all students to interact with me is for headmaster to talk to all the students during morning assembly or closing time for them to know that I am also humanbeing like them. They should treat me like their friend' (Verbatim expression from a student in Group 1)*

Another student opined:

> *'I want headmaster to talk to them to understand me, if they fail to understand us and make fun of me, headmaster should punish the fellow if I report him or her'. (Verbatim expression of student from Group 2)*
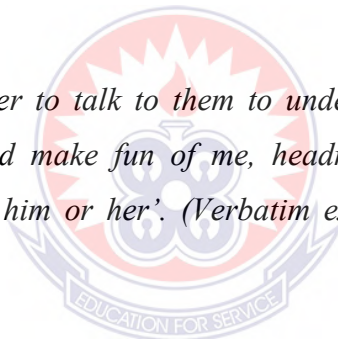
A third added:

> *'I want the classroom teachers to talk to the students that, it is not my fault that am using clutches. They can also be like that one day when they get accident. The teachers should talk to them to stop laughing at me, and talk, play and help me too'.*

It is evidently clear from the above comments that, education is the main tool that can be used to promote acceptance and interaction between students with orthopaedic impairment and those with outorthopaedic impairment. Students without disabilities sometimes tease their physically disabled counterparts. The headmaster and the teachers did not do much to educate students about disabilities, and this has decreased social acceptance.

4.4   Research Question 4

How do pupils feel about the support they get from their parents?

4.4.1   Financial support received from parents

A theme that emerged from the analysis of the interview data about research question four was financial support received from parents.

Concerning financial support students with orthopaedic impairment receive from their parents as far as their education is concerned, the following comments were made by the students:

One student acknowledged:

> *'It is only my mother alone who gives me money if she has to send it to school and buy food during break. My mother is also the one who gives me money to buy my school uniform, books, pen, pencils, mathematical sets and everything I need. My father always complain when he is giving me money'.*(Verbatim expression by a student in Group 1).

Another student had this to say:

> *'My parents do not give me money to buy my books. Sometimes I have to refuse going to school before my mother will help me. Sometimes my mother will borrow money for me to buy books, pens and some materials I need for school'.* (Verbatim expression by a student in Group 3).

Another student added:

> *'My parents are not fair to me because they don't give me money when I want. But if it is my brothers, they give them money without asking them of the reason. They give them money to buy school materials but when I ask they don't want to give it to me'.* (Verbatim expression by a student in Group 1).

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From the aforementioned statements, it can be inferred that while parents occasionally provide financial assistance to their children with orthopedic disabilities, this assistance always follows a string of complaints from the children.. At times it was the mothers who helped them with money when they made requests. Some parents, especially, fathers did not give financial support to students with orthopaedic impairments.

4.4.2   Parents that gives greater academic support to students with orthopaedic impairments

Another theme that emerged was which of the parents gave greater academic support to students with orthopaedic impairments. Concerning this theme, the following comments were made by students.

One student opined:

> *'My mother assist me all the time to do my home work, but for my father he does not have time for me. He comes home late, and am always asleep. He does not attend our school's PTA meetings. I pray that God change my father for me, so he will also help me do my homework for my mother to also rest'.* (Verbatim expression by a student in Group 4).

Another expressed the following concern:

> *'In the house, it is only my mother who cares so much about my school. My father and other siblings do not want to help me with my homework, project work, and even when am reading English passage and do not understand some words. Anytime I asked them to explain the meaning of some words to me, they tell me to look for the word in the dictionary for the explanation'* (Verbatim expression by a student in Group 3)

Another student made a similar comment:

'It is only my mother who is my everything in the house' (Verbatim expression by a student in Group 2)

It can be deduced from the above comments that, almost all the students acknowledged that, their mothers who showed more academic support for them than their fathers.

4.4.3 Description of academic support received from older siblings by students with orthopaedic impairment

On academic support respondents received from older siblings, the respondents made the following comments:

One student noted:

'Yes I do receive assistance but not all the time. Most often my brothers do assist me by running errands for me, helping me with my homework and sending me to school. I am always happy to have such brothers to be around me. They also take me around the community' (Verbatim expression by a student in Group 3).

A second student remarked:

'My brothers and sisters sometimes help me in doing school assignments but not all the time. They sometimes insult me' (Verbatim expression from a student in Group 2)

Similarly, another student indicated that:

'My younger brother has been helping me to do any work my mother ask me to do if he is free' (*Verbatim expression from a student in Group 1)

It is obvious from the above comments that, students with orthopaedic impairments that to some extent, supported one another regarding academic work. Support received from students with orthopaedic impairment was fairly good.

4.4.4 Academic and financial support students with orthopaedic impairment receive from extended family members

With reference to financial and academic support received from extended family members, students made the following comments:

A student expressed his view this way:

> *'Members of my extended family don't give me money when I request for it and they don't even help me do my home work any time I ask them to help me. Most at times it is my mother who help me whenever I call on her for help such as helping me with my class work and my project work'* (Verbatim expression by a student in Group 2).

One student commented:

> *'My extended family members are not good, theyalwaysdon't provides me with food whenever my mother is not around.They don't also have time for me when am doing my class work and go to them to help me'* (Verbatim expression by a student in Group 4).

Another student had this to say:

> *'My uncles, aunties, and grandparents don't have time for me. They don't like me like my mother and father do'* (Verbatim expression by a student in Group 1)

Comments by students indicate that, little attention was given to students with orthopaedic impairments by members within their extended family system. Members of their extended family neither supported them financially nor in doing their academic work.

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4.5.4 Academic and financial suggestions that needs to be done to gain the support of extended family members to students with orthopaedic impairment

Concerning what needs to be done to get the support of extended family members, students made the following remark:

One student said:

> *'I think what needs to be done so that my extended family members will give me support is for them to be talked to. They think it is my own fault that am a cripple'* (Verbatim expression by a student from Group 1)

Another student indicated that:

> *'What the government should do is to talk to my extended family members to accept me because it is not my fault that am like this. Am not happy I cant walk without clutches but people are making fun of me. Is it my fault?'* (Verbatim expression by a student from Group 2)

A third student again remarked:

> *'My grandfather and mother, my uncle, my father's brothers and sisters don't like me. I don't go to them because they don't like me. Some one will have to talk to them. Even when am hungry I don't go to them because I fear they may insult me or beat me'* (Verbatim expression by a student in group 3).

From the comments of students, it can be deduced that, the most effective way to make members of the extended family provide academic and financial support to students with orthopaedic impairments is to educate them. Education will make them understand the conditions under which such disabilities occur, and the need to support such persons. This will reduce the myths and misconceptions about peoples with disabililties including those with orthopaedic impairments. Special educators and

school heads can help organize talks shows on radio, television shows and during PTA meetings of such schools.

4.5   Discussion of Findings

4.5.1 Results of research question 1: How do students with orthopaedic impairments feel about using the facilities at their school?

Regarding research question one that focused on experiences of students with orthopaedic impairment concerning access to facilities in the school, the results indicated that students with orthopaedic impairments found it difficult to access facilities in their various schools. The social learning theory developed by Bandura in 1977, which served as the study's theoretical foundation, is believed by the researcher to corroborate the study's findings because it postulates that new behaviors can be learned by copying and witnessing the actions of others. Bandura (1977) in support of this findings further asserted that, students with orthopaedic impairments can access, learn and use school facilities better by observing, imitating and developing behaviours imitated that are suitable and helpful to them. Additionally, Hill (1992) in his research stated that children with orthopaedic impairment may experience anxiety and marginalization when participating in the teaching and learning process due to mobility restrictions in accessing school facilities. For instance, being unable to access this crucial infrastructure can be a barrier to academic performance. Accessible educational facilities are necessary to ensure social and academic interaction amongst students with and without orthopaedic impairment.

This study's findings were reinforced by Liewellyn's (2000) investigation of young individuals with orthopaedic impairment in a mainstream setting. The findings emphasized the need for all students including those with orthopaedic impairment to have access to school facilities in order to promote socialization and academic

performance among all students irrespective of one's disability. The majority of the pupils, even those with orthopaedic impairment, encountered difficulties participating in classroom activities as a result of both the physical and social surroundings, according to Hemmingson and Borells' study in 2002.

Students with disabilities, such as those with orthopaedic impairment, frequently offer suggestions for improving the accessibility of their learning environments. For example, a student who uses crutches will need different modifications than a student who is blind or has vision impairment (Singh et. al., 2014).

To accommodate all learners, including those with disabilities, school buildings should be modified to meet the needs of all pupils, including those with orthopaedic impairment, according to the Standards and Guidelines for Practice of Inclusive Education in Ghana (2015) (p. 10). Cobblestones, coarsely exposed aggregate concrete, bricks, and other items that can be used by children with orthopaedic disability generally have irregular surfaces that make for bumpy rides. A moderate two-way traffic shall be between 1650 and 1800mm wide, with a minimum walk way width of 1200mm. (p. 21).

According to UN data from 2003–2004, pupils with orthopedic impairments cannot access school premises. Public buildings must be accessible to both physically abled and students with orthopaedic impairment. In most cases, public buildings are regarded as barrier free buildings or sustainable buildings United Nations (2003-04). Schools and school facilities, offices, commercial buildings, assembly halls, hospitals, health facilities, libraries, sports facilities, public transportation facilities, religious structures, government administrative structures, educational structures, religious structures, and banks are among the building types that are classified as public

buildings. 2003–2004 United Nations. The guidelines 254 are to be applied in the design, construction and alteration of public buildings. The facilities covered in the documents are substantial and it includes the following: ramps, stairs, elevators, platform lifts, windows, doors, entrances drinking fountains, signage, etc (United Nations, 2003-04).

Access barriers to schools and other public buildings may take the form of small entrances, steps, or staircases (Ward, 1979). Only because of how their environments are built, which makes it harder for people with disabilities to access, can people with disabilities become handicapped. Architectural and urban restrictions have made it difficult for persons with disabilities to participate in social activities, which have a detrimental impact on society as a whole, according to Ghaem (1991).

Hemmingsson and Borell (2000) state that distances, heavy doors, steep staircases, and rough surfaces such uncut curbs and thresholds are typically not considered physical impediments. To ensure integration (Hill, 1992) and inclusive involvement of students with orthopaedic handicap, accessibility in the environment must be provided (Baris & Uslu, 2009). People with disabilities, particularly pupils with orthopaedic impairment, will no longer be segregated from the general student population as a result of the constructed environment.

4.5.2   Research question 2: What are the classroom teaching and learning experiences of students with orthopaedicimpairment

This research question was to explore the classroom teaching and learning experiences of students with orthopaedic impairment. According to Bandura (1977), students' learning is greatly impacted by the interaction and socializing that takes place during teaching and learning between teachers and students with orthopaedic impairment and between students with orthopaedic impairment and their non-disabled

peers. It was revealed that students with orthopaedic impairment were given extra time to finish their work during teaching and learning they were not properly placed in the classroom.

This is in accordance with Farid's (2014) assertion that giving students an extra 5 to 10 seconds to respond orally during class discussions will allow for more comfortable assessment delivery. Give students who may struggle to demonstrate the knowledge they have learned in the classroom, or who may require more time to finish tasks or exams, suitable test accommodations. A student's impairment can also require that assessments be modified. Examples of usual adjustments for students with learning difficulties include testing or allowing them to utilize items to demonstrate their comprehension of a concept.

Effective instructors make the appropriate adjustments to the classroom environment to support the academic and social requirements of their students (Friend & Bursuck, 2006). One of the most important requirements for inclusive education is a suitable classroom setup that supports the learning and development of all students (including those with special educational needs), so it is imperative to create a universal design so that all students can physically access all materials and activities (Farid, 2014). The layout of the students' furniture is one of the fundamental elements of a classroom that can be modified, according to Gaurdino and Fullerton (2010), who conducted the study. A nice classroom seating arrangement that is believed to encourage learning in the pupils is the circular arrangement of desks in the room. As a result, students with special needs will more successfully complete their academic work. With fewer class sizes, the seating arrangement in the classroom performs better (Gaurdino & Fullerton, 2010). A student in the front row of the class will surely have a better likelihood of surpassing his or her classmates located in other

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areas of the classroom due to maintained attention during a major portion, if not the entirety, of the session (Totusek & Staton-Spicer, 1982).

Again, the findings showed that insufficient teaching and learning resources (TLMs) are used by teachers to assist students with orthopaedic impairments during the teaching and learning process. According to Moodley (2002), who supported the study, for students to actively engage in the teaching and learning process, institutions must ensure that all students with special needs have access to teaching and learning resources that are suitable for their needs. According to UNESCO, the learners must receive educational materials in formats that meet their specific needs (2004). Wheelchairs, crutches, positioning aids, optical and non-optical aids, and hearing aids are just a few examples of the equipment that can help with mobility and communication. (2002) Randiki. Inclusion places a strong emphasis on teachers utilizing nearby resources to foster learning (Moodley, 2002). The materials should be centralized, according to Randiki (2002) and Ogot (2004), such that all or most schools can access them.

According to Dilnesaw (2009), a classroom's physical setting can encourage active learning. To properly conduct the teaching-learning process, classrooms should be large enough, maintained, and supplied. The teaching-learning process for students with orthopaedic disability is therefore greatly influenced by the student's position in the class, the arrangement of the classroom materials, the effects of the surrounding noise, and the state of the building. Thus, it is impossible to overstate the value of resources in teaching and learning. These resources are essential for effective teaching and learning, together with assistance.

Further examination of the interview data demonstrated that during instruction, teachers paid little attention to pupils with orthopaedic impairment.

Teachers in inclusive settings could enhance their instruction by utilizing resources such appropriate furniture arrangement, a suitable learning environment free from distractions, appropriate play materials, among other things. The lack of, or inadequate provision of these is a source of disaster for students with orthopaedic impairment. Ghana has approved inclusive education, therefore teachers are required by this policy direction to accommodate students with a range of needs in a single classroom.

Meijer (2001) asserts that the success of inclusion in schools is influenced by teachers' attitudes about the practice of inclusive education. According to Obeng (2007), instructors' insufficient training is the main cause of their inability to accommodate children with impairments in mainstream classrooms..

Worldwide, inclusive education is recognized as the most effective alternative educational strategy for achieving inclusion for all students. However, both experienced and new teachers must face the task (Eileen, 1999). In support of this claim made by Eileen (1999), Hardman et al. (2002) argued that it is crucial to treat the skill set and knowledge required of teachers in dealing with pupils with orthopaedic impairment with the seriousness it requires. This is why it's important to be concerned about how teachers develop (Whitworth, 2001). There is ample proof that in order to successfully implement inclusive education, certain traits, like a positive teaching attitude and familiarity with inclusive education, must be taken into account (Avramidis et al., 2000). Once more, successful instruction should center on institutional modifications that are considerate of the needs of students with disabilities (Mastropieri & Scruggs, 2000). In support with the findings, Forlin (2001) suggested that teachers' inadequate preparation is the root of hurdles to inclusive education.

4.5.4 **What are the experiences of students with orthopaedic disability in regard to how they interact with one another, according to research question 3?**

The study's findings showed that students' close friends helped them and gave them access to information and other resources. Bandura's (1977) social learning theory states that, students including those with orthopaedic impairment learn from our interactions with others in a social context. By observing the behavior of others, students develop similar behavior that is rewarding and avoid those that are punishable. Students internalize and mimic behavior, especially if their experiences during observation are rewarding and involve the observed activity's reward (Bandura, 1977). Student interaction is extremely important to children's social, and emotional development, as well as academic progression in basic level. Pellegrini & Blatchford (2000) in supporting the findings of the study stated that, in order for social development to exist, there must be components of play and peer interaction to build on this development. According to Koster et al. (2009), social involvement refers to four themes: friendships, social self-perception, acceptance by peers, and interactions between students with disabilities and their peers without disabilities. The notion that children with and without disabilities gain socially from attending conventional schools together is one of the cornerstones of inclusive education (Flem & Keller, 2000).

The majority of children with impairments, including those with orthopaedic disability, appear to function socially well in ordinary classrooms, but some people have trouble making friends and receiving acceptance (Bramston, Bruggerman & Pretty, 2002). In support of the findings, Stoneman (1993) claimed that students' unfavorable attitudes prevent people with orthopaedic impairment from fully engaging in communities and schools.

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The study's findings showed that students' close friends helped them and gave them access to information and other resources. The unfavorable attitudes of both kids with and without orthopaedic disability may have significant effects on young students with disabilities, including difficulty participating in group activities, declining academic performance, dropping out of school, and/or problem behavior (Jackson & Bracken, 1998). In most nations, including Ghana, attitudes are the biggest obstacles to the growth of inclusive education, according to Mushoriwa (2001).

When experiences of students with disabilities including those students with orthopaedic impairment at school are positive, it contributes to their motivation and excitement which always make students with orthopaedic impairment ready to participate in learning process. Through interactions with peers whether disabled or none disabled, students with orthopaedic impairment are developing skills necessary for academic success (Zins et al., 2004). Students with orthopaedic impairment who do not develop positive peer relationships are most likely to have behavior or emotional problems and this could lead to school dropout (Coolahan et al., 2000). Nabors, Badawi, & Cheney (1997) posited that students with orthopaedic impairment have a challenge in engaging their peers in play activities and are seen as socially not competent, and therefore need more facilitation during a period of play. The purpose of the current study was to learn more about how students with orthopaedic impairments experienced inclusive education in Ghana's Sekyere South District.

4.5.5 Findings of research question 4: What do kids think of the help they get from their parents, on average?

There are many ways of supporting students including academic and social support that students with orthopaedic impairments need. Helping them in their

homework, care and love for them, buying them books, school bag, and giving them money when necessary, giving them extra tuition after school among others. The findings is supported by UNESCO (2008) when they asserted that, families, especially those organized into associations play a major role in helping students with orthopaedic impairment in the education systems. According to UNESCO (2008), families of students with orthopedic impairments are important supporters of inclusive education who first and foremost support the families of students with orthopedic impairments themselves, the structures of inclusive education, and the policy of inclusive education as a whole.

The study's conclusions showed that teachers and classmates of kids with orthopaedic disabilities helped them both inside and outside of the classroom, gave them a lot of attention when they were working on their assignments, and also gave them food during breaks and after school had ended. According to Lightfoot et al. (1999), a student with an orthopaedic handicap will greatly benefit from attending a standard school if they have strong support networks from their parents and peers. According to Lightfoot et al. (1999), the majority of young people with orthopaedic disabilities were content the majority of the time. This contentment was due to the fact that these students felt successful, particularly when they excelled academically, athletically, or socially.

The study's results also showed that siblings provided academic and social support to kids with orthopaedic disabilities by assisting them with their homework, driving them to school, and escorting them around the neighborhood.

According to Limaye (2016), views about students with orthopaedic disabilities and their education may substantially hinder their ability to become included and involved in a mainstream educational environment. Social stigma hinders students with

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orthopaedic limitations from performing well in school. People in the neighborhood occasionally extended the same social stigma to parents of students with orthopaedic impairments by treating their children in the same way (Limaye, 2016).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0   Introduction

The study's goal was to learn more about the experiences of children with orthopaedic disabilities in inclusive classrooms in Ghana's Sekyere South District, part of the Ashanti Region. The study's objective was to

- Find out the extent to which students with orthopaedic impairments have access to facilities in the school.

- Explore the classroom teaching and learning experiences of students with orthopaedic impairments.

- Learn about the interactions between kids with orthopaedic impairments and their peers who are not impaired.

- Determine the support students with orthopaedic impairments receive from their parents.

To direct the process of gathering data for the study, four research questions were put forth. The study was supported by the social learning hypothesis put forth by Albert Bandura in 1977. The experiences of pupils with orthopaedic impairment in inclusive schools at the Sekyere South District of Ashanti Region of Ghana were examined using qualitative approach and phenomenological study design. At their various schools, students with orthopaedic impairment were contacted. The interviews were conducted at agreed locations within the premises of the schools. The interviews were recorded. The interviews data were analyzed through transcriptions, reading, coding, categorization which themes emerged.

5.1   Summary of Major Findings

According to the sub themes that are derived from the research questions, the key findings are reported.

5.1.1   Research question 1: What do pupils who have orthopaedic impairments think about access to facilities at the school?

Because of the poor quality of the field, analysis of interview data from research question one showed that students with orthopaedic disability had trouble getting onto the playing surface. There were inadequate playing materials making it difficult for them to participate during games as their peers without disabilities did not want to play with them because of challenges in movement during the games.

As regards students with orthopaedic impairment using the ICT laboratory, the findings revealed that students with orthopaedic impairments encountered difficulties. Examples of the challenges they faced are defective stair cases, ramps, narrow doors among others. these challenges obviously affect them from accessing some of the facilities in the school.

With regards to access to ICT centres especially during ICT lessons, those students that could ran fast and got to the room had accessed to the few ones that were functioning, this made it difficult for students with orthopaedic impairments who wanted to also access it. Slippery floors, narrow doors to toilets and urinal posed threat to students with orthopaedic impairments any time they wanted to use those facilities. For instance, doors of the washrooms were very narrow for a student with crutches to pass through to access the user interface of the facilities.

5.1.2 Research question 2: What teaching and learning experiences do students with orthopedic impairments have in the classroom?

Analysis of the interview data based on research question two revealed that, students with orthopaedic impairments were unable to get access to teaching and learning materials. This resulted from insufficient instruction and study materials, which were always used by their counterparts without impairments.

Adaptation of teaching and learning methods was another concern students with orthopaedic impairment had. Their counterparts without disabilities isolated, stigmatized, and discriminated against them during group assignment. Teaching pedagogies such as field trip to observe sceneries, walking outside the class with their clutches makes them tired and they lost concentration in class.

5.1.3 Research question 3: How do pupils with orthopaedic disabilities connect with their peers who are not impaired during social activities?

It emerged from analysis of the interview data for research question three that, students without orthopaedic impairments did interact with their physically disabled counterparts in school. They studied together with them, helped them in buying food and other things in the school common market, though they did not involve them in activities such as sports. The interactions that took place between students with disabilities and those without disabilities were sometimes as a result of gifts students without disabilities could gain from the counterparts with physical disabilities. Majority of students without orthopaedic impairments, who interacted with students with orthopaedic impairments, were relatives and close friends. Many of their peers without disabilities helped them in doing their assignments at home and in school, and they played with them too. In contrast, some of the students without disabilities did not offer assistance to students with orthopaedic impairments whenever the need

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arose. Education is the main tool that can be used to promote acceptance and interaction between students with orthopaedic impairment and those without orthopaedic impairment. Students without disabilities sometimes teased their counterparts with disabilities. The headmasters and the teachers did not do much to educate students about disabilities, and this resulted in decreased social acceptance.

5.1.4 What do students think about the help they get from their parents, according to research question 4?

Analysis of the interview data for research question four revealed that, students with orthopedic impairment acknowledged that, their mothers showed them much love and support than their fathers. Their mothers bought them stationery and at times dropped them off at school. The extended family members of students with orthopaedic impairments did not help with education.

5.2 Conclusion

The study's findings support the conclusion that kids with orthopaedic disabilities in Sekyere South District of Ashanti Region do not always have the best experiences in inclusive schools. This is because students with crutches and wheel chairs found it extremely difficult to move on the slippery floors with their crutches and wheel chairs. The doors to some of the facilities are too narrow to pass through with the crutches.

Teaching and learning materials were mostly inadequate, and students with orthopaedic impairment were mostly the ones unable to access them. As a result of the challenges, they had in walking moving about, teachers rarely involved them in practical lessons especially lessons involving fieldtrips.

Regarding experiences of students with orthopaedic impairments, about their interactions with their peers without physical disabilities, majority of them had challenges. Students without disabilities did not often want to socialize with students with disabilities. They did not involve them during play activities. They did not also help or assist them in doing class exercises or assignments. However, they ate together or shared gifts when students with disabilities had such commodities to share with their peers without disabilities.

Financial and academic support from relatives was also not the best. Most relatives including the fathers did not make time to help students with disabilities to complete academic activities such as home work. However, mothers of students with orthopaedic impairment mostly offer financial support for students with orthopedic impairments.

5.3   Recommendations

- The headteachers and the district education directorate should in conjunction with the municipal assembly provide ICT centres, libraries, washrooms and playing field facilities in the schools accessible to all students irrespective of their disability.

- Headteachers should alert teachers to the necessity of modification and adjustment to suit the special educational needs of students with orthopedic impairment and again employ teaching and learning resources that will benefit all students as part of their daily monitoring of teachers' lesson delivery.

- Teachers need to educate all students with or without disabilities on the need for them to involve each other effectively in activities in the schools in and outside the classroom.

- Special education coordinators, headteachers and teachers should educate parents and guardians especially during home visit, Parent Teacher Association (PTA) meetings, open days, speech and prize giving days, anniversary celebrations among others on the need to support all students with or without disabilities financially and academically.

- Playing fields and its materials should be made friendly and accessible so that students with orthopedic impairment can have their fair share during games and other social activities.

5.4   Suggested areas for Further Studies

- Students' experiences in Ghana's inclusive schools with hearing impairment.

- Strategies used in teaching students with orthopaedic impairment.

- Utilizing assistive technology to educate pupils with orthopaedic disabilities.
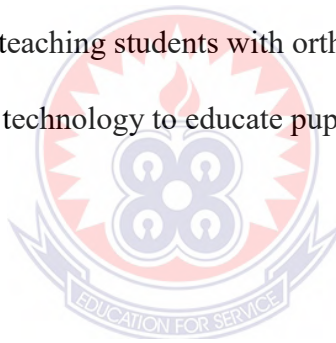
REFERENCES

Agbenyega, J. S. (2005). *An investigation into the barriers and facilities of inclusive education in Ghana: A policy reform study*. Clayton: Monash University.

Alumode, B. E. (2011). Population and sampling techniques in research in Education and social science. In B. Ezeliora, J. O. Ezeokana, H. Inyega & Co. (Eds). *Principles of research in education and social science* (pp. 163-186). Enugu: Fourth Dimension Publishing Co. Ltd.

Ary, D., Jacobs, L., & Sorensen, C. (2010). *Introduction to research in education*. Wadsworth: Cengage Learning.

Austin, N. J. (2015). Video conferencing and multimodal expression of voice: children's communication in a second language using skype. (Doctoral dissertation), The Open University.

Avoke, M. (2005). *Special educational needs in Ghana: Policy, practice and research*. Winneba: Department of Special Education.

Avoke, M. K., & Avoke, S. K. (2004). *Inclusion, rehabilitation and transition services in special education.* Winneba: Department of Special Education, UEW.

Avramidis, E., & Norwich, B. (2002). Teachers' attitude towards integration /inclusion: A review of literature. *European Journal of Special Needs Education, 17*(2), 129-147. Retrieved from https://googlescholar.com

Bandura, A. (1965). Vicarious process: A case of no-trial learning. In Berkowitz (Ed.). *Advance in experimental social psychology*. London: Routledge

Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1). Prentice Hall: Englewood cliffs.

Belch, H. A. (2011). *Understanding the experiences of students with psychiatric disabilities: A foundation for creating conditions of support and success*.

Berks, L. E. & Winsler, A. (1995). Scaffolding children's learning. Vygotsky and Early Childhood Education. *NAEYC Research into Practice Series, 7* Retrieved from www.google.scholar.com on 12/15/2021.

Berks, L. E. & Winsler, A. (1995). Scaffolding children's learning: Vygotsky and Early Childhood Education. *NAEYC. Research into Practice Series, 7*. Retrieved from https://www.google.scholar.com on 12/05/2020.

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Bhan, S. (2012). Indian perspective on child's right education. *Social and Behavioural Sciences, 69*, 367-376. Retrieved from http://india.gov.in/sectors/educational/indexphp?id=13 on 13/05/2021.

Blanton, L. P., & Pugach, M. C. (2007). *Collaborative programs in general as special teacher education. An action guide for higher education and state*. Washington D.C: Council of Chief State School Officers.

Bogdan, R., & Biklein, S. (1992). *Qualitative research for education*. Boston: Allyn & Bacon.

Bonnici, L. J., Matta, S. L., & Wells, M. K. (2009). US national accessibility survey: Librarians serving patrons with disabilities. *New Library World, 110*(11/12), 512-528.

Boris, M. E. & Uslu, A. (2009). *Accessibility for the disabled people to the built environment in Ankara*. Turkey: Ankara University

Boud, D. (2000). Sustainable assessment: Rethinking assessment for the learning society. *Studies in Continuing Education*, *22*(2), 151-167.

Bramston, P., Bruggerman, K., & Pretty, G. (2002). Community perspective and subjective quality of life. International Journal of Disability, Development and Education. 49 (4): 385-397

Bulat, J., Hayes, A. M., Macon, W., Tichá, R. & Abery, B. H. (2017). *School and classroom disabilities inclusion guide for low-and middle-income countries*. Occasional paper, RTI Press Publication OP-0031-1701. RTI International.

Burgess, R. G. (1984). *An introduction to field research*. London: Pubmed

Burns, K. K., & Gordon, G. L. (2010). Analyzing the impact of disability legislation in Canada and the United States. *Journal of Disability Policy Studies, 20*(4), 205-218.

Cater, A (2004). The adaptable approach: A practical guide to planning accessible libraries. *Library Hi Tech*, *14*, 41- 45.

Celeste, M. K. (2006). *Echo inside by lear*. New York: Routledge

Centre for Universal Design. (2011). *Environments and products for all people*. North Carolina: NC State University College

Church, R. L., & Marston, J. R. (2003). Measuring accessibility for people with a disability. *Geographical Analysis, 35*, 3-96. Retrieved from www.wiley online library on 4/07/2021

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). Oxford UK: Routledge Publishers

Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education*. Oxford, UK: Routledge Publishers

Connors, C. & Stalkers, K. (2003). *The views and experiences of disabled children and their siblings: A positive outlook*. London, UK: Jessica Kingsley Publishers.

Convention on the Rights of the Child. (1989). Adopted and opened for signature, ratification and access by General Assembly resolution 44/25 of 20 November, 1989. United Nations Treaty Series, 1577, pp.3-178. Retrieved from *https://www.treaties.un.org/doc/treaties* on 3/05/2020.

Coolahan, K., Fantuzzo, J., Mendez, J. & McDermott, P. (2000). Preschool peer interactions and readiness to learn: Relationships between classroom peer play and learning behaviors and conduct. *Journal of Educational Psychology*, *92*(3), 458.

Corbett, J. (2001). *Supporting inclusive education*. New York: Routledge. From www.researchgate.net on 4/04/2020.

Corbett, J. (2001). Teaching approaches which support inclusive education: A connective pedagogy. *British Journal of Special Education*, *28*(2), 55-59.

Creases, C., Davies, J.F., & Wisdom, S. (2002). Accessible, open and inclusive? How visually impaired people view library and information services and agencies. *Journal of Librarianship and Information Science, 34*(4), 207-214

Creswell, J. W. (2002). *Research design qualitative, quantitative and mixed methods approaches* (2nd ed.). USA: Sage Publications, Inc.

Creswell, J. W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Thousand Oaks, CA: Sage.

Crisp, A. H. (2000). Changing minds: Every family in the land. *Psychiatric Bulletin, 24*, 267-268. Retrieved from https:www.cambridge.org on 3/04/2020.

Croft, A. (2010). *Including disabled children in learning. Challenges in developing countries*. In Create Research monograph 36: University of Sussex, Brighton.

De Leeuw, W. (2001). *Investigating policy networks for health: Theory and method in a larger organizational perspective*. WHO. Retrieved from http://www.research.unsw.edu.au on 3/04/2020.

Deegan, A., Hodge, C., & Divine, B. (2004). Rehabilitation contexts: A holistic Approach. *Journal of Human Behaviour in the social Environment*. Retrieved from www.tandfonline.com on 4/06/2021

Derrington, C., & Kendall, S. (2004). The experiences and perceptions of Gypsy traveller pupils in English secondary schools.Dublin: NDA.*Developmental Science, 10*(3), 132-146.

Dilnesaw, C. (2009). *Challenges and opportunities to implement inclusive education*. Ethiopia: Special Needs Education, University of Gondar

Doabler, C. T., & Fien, H. (2013). Explicit mathematics instruction: What teachers can do for teaching students with mathematics difficulties. *Intervention in School and Clinic*, *48*(5), 276-285.

Egan, G. (2004). *The skilled helping and problem management and opportunity development approach to helping*. Brooks/Cole Cengage Learning: Pacific grove, CA.

Egilson, S. T., & Traustadottir, R. (2009). Participation of students with physical disabilities in the school environment. *American Journal of Occupational Therapy, 63,* 264–272.

Eide, A.H, Van Rooy, G., & Loeb, M. E. (2003). *Living conditions among people with disabilities in Namibia*. A national, representative study: SINTEF report no: STF 78 A034503, Oslo: SINTEF Unimed. Retrieved from www.googlescholar.com on 3/11/2020

Eileen, G. (1999). An alternative to authority based practice: Proposed public and professional policies. *Sage Journals- NASW News, 44*(3),12-17.

Ekwelem, V. O. (2013). Library services to disabled students in the digital era and challenges for outcome assessment. *Library Philosophy and Practice (e-Journal)*, 970.

Eriksson, L., Welander, J., & Granlund, M. (2007). Participation in everyday school activities for children with and without disabilities. *Journal of Developmental and Physical Disabilities*, *19*(5), 485-502.

Farid, T., Anwar, M. N., Iqbal, S., Jan, M., & Khattak, I. (2014). Socio economic impact of poverty on children socialization with special focus on education. *The International Asian Research Journal*, *2*(4), 41-50.

Ferrel, O.C. (2012). *Anarchy, geography and drift*. Retrieved from www.wileyonlinelibrary.com

Fetterman, D. M. (1998). *Ethnography: Step by step* (2nd ed.). Thousand Oaks, Ca: Sage Publications, Inc.

Flem, A., & Keller, C. E. (2000). Inclusion in Norway: A study of idealogy in practice. *European Journal of Special Needs Education*. Retrieved from www.semanticscholar.org

Forlin, C. (2001). Inclusive education in Australia ten years after Salamanca. *European Journal of Psychology of Education*, *21*(3), 265-277.

Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education* (7th ed.). New York: McGraw-Hill.

Friend, M. & Bursuch, W. D. (2006). *Including students with special needs: A practical guide for classroom teachers* (5th ed.). Pearson: University of North Carolina at Greesboro.

Fullan, M. (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin

Ghaem, G. (1991). Research on urban planning and architecture for disabled persons in Iran: Establishing design criteria. In *Report of the CIB Expert seminar on building non-handicapping environments. Budapest.[žiūr÷ ta 2009-09-30]. Prieiga per internetą.*

Gilhool, T.K. (1989). The right to an effective education: From brown to P.L. 94-142 and beyond. In Lipsy, D. & Gartner, A. (Eds). *Beyond separate education: Quality education for* all (pp.243-253). Baltime: Paul H. Brookes

Global Monitoring Report. (2010). *Reaching the marginalized*. United Nations Educational, Scientific and Cultural Organization. Retrieved on Wiley online Library on the 3/05/2021

Golder, G., Norwich, B., & Bayliss, P. (2005). Preparing teachers to teach pupils with special educational needs in more inclusive schools: Evaluating a PGCE development. *British Journal of Special Education*, *32*(2), 92-99.

Gottlieb, B.W., Gottlieb, J., Berkell, D. & Levy, I. (2001). *Sociometrist status and solitary, play of LD toys and girls*. J Learn Disability

Greef, A. (2005). Resilience: Personal skills for effective learning: UK: Crown Housing Publishing Ltd

Greenstein, L. M. (2012). *Assessing 21st century skills: A guide to evaluating mastery and authentic learning*. Corwin Press.

Guardino, C. A., & Fullerton, E. (2010). Changing behaviors by changing the classroom environment. *Teaching Exceptional Children*, *42*(6), 8-13.

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Newbury Park: McGraw-Hill

Hardeman, W., Johnston, M., Johnstone, D., Bonetti, D.L., Wareham, N. & Kinmouth, A. K. (2002). Application of the Theory of Planned Behaviour Change Interventions: A systematic review. *Journal of Psychology and Health, 17,* , 2, 123-158.

Harris, C. & Oppenheim, C. (2003). The provision of library services for visually impaired students in UK further education libraries in response to the Special Educational Needs and Disability Act (SENDA). *Journal of Librarianship and Information Science, 35*(4), 243-257.

Healey, M., Fuller, M. & Bradley, A. (2011). *Barriers to learning: A systematic study of the experience of disabled students in one university*. Retrieved from www.researchgate.net>listening

Hemmingson, H. & Borell, L. (2002). Environmental barriers in mainstream schools. *Child Care Health and Development, 28* (1), 57-63. Retrieved from www.researchgate.net on 24/06/2021.

Hill, H. (2013). Disability and accessibility in the library and information science literature: A content analysis. *Library and Information Science Research 35*(2), 137-142.

Hill, N. (1992). *Think and grow rich*. Napolean Hill Foundation. Retrieved from http://www.think-and-grow-rich-ebook.com. On 24/02/2020

Instad, B. & Whyte, S. R. (1995). Disability in local and global world. *Scandinavian Journal of Disability Research, 1*0(2), 139-143. Retrieved from www.sjdrise on 24/03/2021

Jackson, L. D. & Bracken, B. A. (1998). Relationship between students' social status and global and domain specific self-concepts. *Journal of School Psychology, 4*(11), 5-15

Jasper, J. M. (2004). *Emotions and social movements: Twenty years of theory and research*. New York: Department of Sociology, CUNY Graduate Center

Kamberelis, G. & Dimitriadis, G. (2005). *Qualitative inquiry: Approaches to language and literacy research*. New York: Teacher's College Press.

Kinnell, M. & Creaser, C. (2001). A new outlook: Services to visually impaired people in UK public libraries. *Journal of Librarianship and Information Science, 33*(1), 5-14.

Kohler, K., Greteman, A. & Raschke (2007). *Process-outcome Approaches to classroom management and effective Teaching*. From www.semanticscholar.org>paperprocess

Koster, R. D., Guo, Z., Dirmeyer, P. A., Yang, R., Mitchell, K. & Puma, M. J. (2009). *Social participation of students with special needs in regular primary* school. Retrieved from www.tandfonline.com on 21/06/2021.

Kuruwa, G. (2010). Teaching diversity in a primary school: examining teachers for classroom strategies for inclusion. *Journal of social and behavioural sciences,* 5, 1585-1591. Retrieved from www.researchgate.net on 13/05/2020.

Levitt, J. T. & Cohen, G. P. (1977). Play deprivation in children with physical disabilities. The role of the occupational therapist in preventing secondary disability. *American Journal of Occupational Therapy, 7*(2), 20-28

Lewis, R. B., & Doorlag, D. H. (2003). *Teaching Special Students in general education classroom* (6th ed.). New Jersey: Merrill Prentice Hall

Lightfoot, T., Wright, S. & Sloper, P. (1999). *Supporting pupils in mainstream school with an illness or disability: Young people views*. Retrieved from wiley online library Acs Publications.

Limaye, S. (2016). Factors influencing the accessibility of education for children with disabilities in India. *Global Education Review, 3*(3), 43-56.

Lindsay, G. (2003). Inclusive education. A critical perspective. *British Journal of Special Education, 30*, 1, 3-12. From https://www.eric.ed.gov on 3/05/2020.

Llewellyn, A. (2000). Perceptions of mainstreaming: A system approach. *Journal of Developmental Medicine and Child Neurology, 42*, 2, 106-115.

Lod, A. & Lunch, K. (2004). *The diversity deficit: Difficulties in the recognition of differences in Irish schools*. Paper presented in the American Educational Research Association Annual Conference. Seattle: Was

MacMillan, J. H. & Schumacher, S. (2001). *Research in education: A conceptual introduction* (5th ed.) Boston: Longman.

Madriaga, M. (2007). Enduring disablism: Students with dyslexia and their path ways into United Kingdom higher education and beyond. *Journal of Psychology, Disability and Society*. Retrieved from www.semanticscholar.org on 2/04/2020

Mbelu, S. E. (2011). *Implementation of inclusive education in the Umgungundlovu district of education in Kwazulu-Natal*. Kwazulu-Natal: UNISA

McLeod, S. A. (2014). *The interview research method: Simply psychology*. Retrieved from https:www.simplypsychology.org/interviews.html on 3/05/2021.

Meijer, P. (2001). Teacher knowledge and the knowledge base of teaching. *International Journal of Educational Research*, *35*(5), 441-461.

Miles, S. & Singal, N. (2010). The education for all and inclusive education debate: Conflict, contradiction or opportunity?. *International Journal of Inclusive Education*, *14*(1), 1-15.

Minou, T. (2011). *New trends in education of children with disabilities*. Iran: Elsevier Ltd Retrieved from https://www.sciencedirect.com on 3/05/2021

Mittler, P. (2002). *Working towards inclusive education: Social contexts*. David Fulton Publishers.

Moodley, G. (2002). Implementation of the curriculum and assessment policy statements: Challenges and implications for teaching and learning (Doctoral dissertation), University of South Africa.

Moraa, O.T. (2013). *School based factors influencing integration of special needs education in public primary schools in Masaba North District, Kenya*. Department of Educational Administration and Planning: University of Nairobi.

Morley, S. (2010). *The self in pain*: Sutherland: SAGE Journals.

Muro, M., & Jeffrey, P. (2008). A critical review of the theory and application of social learning in participatory natural resource management processes. *Journal of Environmental Planning and Management*, *51*(3), 325-344.

Mushoriwa, T. (2001). Research Section: A study of the attitudes of primary school teachers in Harare towards the inclusion of blind children in regular classes. *British Journal of Special Education*, *28*(3), 142-147.

Nabors, L., Badawi, M., & Cheney, S. (1997). Factors related to teacher-directed play between preschool-age children with special needs and their typical peers. *Early Education and Development*, *8*(4), 407-417.

National Council on Disability. (2002). *White paper: Understanding the role of an international convention on the human rights of people with disabilities*. Washington D.C., USA: UNESCO

National Disability Authority. (2007). *Dublin: The forum of people with disabilities.*

Neary, M. K. (2010). *Students with special needs and their interaction with peers during play*. London: Prentice Hall.

Newman, B. M. & Newman, P. R. (2007). *Theories of human development*. Mahwah: Lawrence Erlbaum Associates Publishers

Nowicki, E. A., & Sandieson, R. (2002). A meta-analysis of school-age children's attitudes towards persons with physical or intellectual disabilities. *International Journal of Disability, Development and Education*, *49*(3), 243-265.

Obeng, P. F (2007). *Teacher's views on the teaching of children with disabilities*. Accra: Ghana University Press

Ogot, O. (2005). *Transforming education system to respond to all learners: Experience from oriang Cheshire inclusive education project*. Retrieved from http//wwweenet.org.uk/newsletters/news8/transforming education. Retrieved on 12/07/2021

Okoroipaa, N., Ihenacho, I., Bodang, J. & Oluka, B. (2020). Evaluation of parents and peers without special needs roles in sustaining inclusive practice in Enugu State, Nigeria. *KIV Journal of Social Sciences, 5(*4), 193-199. Retrieved from https://www.ijhumas.com on 23/05/2021

Paciello, M. (2000). *Web accessibility for people with disabilities*. CRC Press.

Papaoikonomou, E. & Valor, C. (2016). Exploring commitment in peer-to-peer exchanges: The case of timebanks. *Journal of Marketing Management*, *32*(13-14), 1333-1358.

Patton, M. Q. (2002). *A personal experimental perspective*. Thousand Oaks, CA: Sage

Pellegrini, A. D. (2000). *A child development and evolutionary psychology*. Retrieved from www.research gate.net on 23/5/2021

Pijl, S. J., Meijer, C. J. W. & Hegarty, S. (1997). *Inclusive education. A global Agenda*. London and New York: Routledge.

Pohikooli, R. O. (2006). National curriculum for basic school. Regulation No. 1 of the Government of the Republic of Estonia. *Journal of Education, 1*. Retrieved from https://www.google.com/searchon 13/04/2021.

Pottas, L. (2005). Inclusive education in South Africa: The challenges posed to the teacher of the child with a hearing loss (Doctoral dissertation), University of Pretoria.

Randiki, F. (2002). *Historical development of special needs education*. Nairobi: KISE.

Ronald, J., Darlene, K. D. & Sakile, C. (2007). *Qualitative Research Reports in Communication, 8* (1), 21-28. Retrieved from http://www.researchgate.net on 13/02/2020

112

Ryder, J. (2004). Can't get to the library? Then we'll come to you. A survey of library services to people in their own homes in the United Kingdom. *Health Information and LibrariesJournal, 21*(suppl. 2), 5-13.

Salkind, N. J. (2009). *Exploring research* (7th ed.). Upper Saddle River. N.J: Prentice Hall

Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science, 8*(3), 27-37. Retrieved from Psycnet.apa.org.

Scruggs, T. E. & Mastropieri, M. A. (2000). The effectiveness of mnemonic instruction for serving patrons with disabilities. *New Library World, 110*(11/12), 512-528.

Shakespeare, T. & Officer, A. (2011). *Psychology, medicine, disability and rehabilitation*. Geneva: WHO

Shenton, A. K. (2004). *Strategies for ensuring trustworthiness in qualitative research projects*. New Castle: Northumbria University.

Singh, R., Honda, H., Frost, B. & Urich, K. (2014). *Casting the net further: Disability inclusive WASH Middlesex, UK: World Vision International*. Retrieved from http://wvi.org/clean-water-sanitation-and-hygiene-wash/publication/disability-inclusive-wash-report.

Springer, K. (2010). *Educational research: A contextual Approach*. New Jersey: Hoboken.

Stoneman, Z. (1993). The effect of attitude on preschool integration. In C. Park, S.O Odom, & D. Bricker, (Eds). *Integrating young children with disabilities into community programs: ecological perspective on research and implementation* (pp.223-248). Baltimore, MD: Paul Brookes

Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Technique and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications

Strauss, A. L. (1987). *Qualitative Analysis for social scientist*. New York: Cambridge University Press.

The Salamanca Statement and Framework for Action on Special Needs Education. (1994). *World conference on special needs education: Access and equality*. Spain: UNESCO

Theoharis, G. (2009). *Creating inclusive schools for all students. Research and practice*. New York: Syracuse University

Thurlow, M. L., Elliott, J. L. & Ysseldyke, J. E. (2003). *Testing students with disabilities: Practical strategies for complying with district and state requirements*. Corwin Press.

Todaro, A. J. (2005). Library services for people with disabilities in Argentina. *New Library World, 106*(5), 253-268.

Totusek, P. F., & Staton-Spicer, A. Q. (1982). Classroom seating preference as a function of student personality. *The Journal of Experimental Education*, *50*(3), 159-163.

UN General Assembly. (2006). *Conventions on the rights of persons with disabilities*. New York: UN General Assembly. Retrieved from https://www.refworld.org/docid/html

United Nations Educational Scientific and Cultural Organization. (2004).*Becoming an inclusive learning friendly environment (ILFE).* Bangkok: UNESCO

United Nations Educational Scientific and Cultural Organization. (2008).*Inclusive education: The way of the future*. Geneva: UNESCO

United Nations Educational Scientific and Cultural Organization. (2001).*The open file on inclusive education*. Paris: UNESCO

United Nations Educational Scientific and Cultural Organization. (2003).*UNESCO'S 2003 Convention on intangible cultural heritage: The implications of community involvement in "Safeguarding*. Geneva: UNESCO

United Nations Educational Scientific and Cultural Organization. (2001).*UNESCO Universal Declaration on Cultural Diversity*. Paris: UNESCO

United Nations International Children Emergency Fund. (1995)**.***The state of the World's Children. Key strategies behind progress made and the upcoming 1995 world summit for social development*. New York: UNICEF

United Nations International Children Emergency Fund. **(2011).***Adolescence: An age of opportunity*. New York: UNESCO

United Nations International Children Emergency Fund. (2013).*Children with disabilities*. New York: UNESCO

United Nations Organisation. (2006). *Convention on the rights of persons with disabilities*. New York: Oxford Publishers. Retrieved from www.oxford.refrence.com on 3/07/2021

United State Department of Education. (2004). *Individuals with Disability Education Act (IDEA) data*. Retrieved from https://www.ideadata.org on 20/08/2021

Vanderstoep, S. W., & Johnson, D. D. (2008). *Research methods for everyday life: Blending qualitative and quantitative approaches* (Vol. 32). John Wiley & Sons.

Vayrynen, M. (2002). *The prevention of humanitarian emergencies*. New York: Palgrave MacMillan.

Walker, S., & Berthelsen, D. (2008). The social participation of young children with developmental disabilities in inclusive early childhood program. *Electronic Journal of Inclusive Education, 2*, 3.

Walsh, M. (2018). The inclusion of students with special needs in the general education classroom. *Senior Theses and Capstone Projects,69*.

Ward, P. (1979). *From the vice-president*. Pennsylvania State: SAGE Journal

Whitworth, J. (2001). *A model for inclusive teacher preparation Abiline*".

WHO. (2011). *World report on disability*. Geneva: World Health Organisation.

Wilcenski, J. L. (1982). *Employability skills for the special need learners*. Rockville, MD: Aspen System Corporation

Zinahwa, M. (2020). *Socio-cultural factors leading to the marginalization of children living with disabilities in accessing education in Zimbabwe: The case study of Mutare District*. Tanzania: The open university of Tanzania

Zindi, F. (1996). Mainstream children's attitude towards integration with the disabled in Zimbabwe's secondary schools. *ZJER, 8*, 1. Harare, Mt. Pleasant: HRRC. Retrieved from https://opendocs.ids-ac-uk/opendocs/handle

Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg, H. J. (2004). The scientific base linking social and emotional learning to school success. *Boys in Schools Bulletin*, *7*(2), 34-43.

APPENDICES

APPENDIX A

Introductory Letter

UNIVERSITY OF EDUCATION, WINNEBA
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF SPECIAL EDUCATION

May 7, 2019

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Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you Mr. Desmond Agyemang Duah an M.Phil student of the Department of Special Education of the University of Education, Winneba, with registration number 8170150009

He is currently working on his thesis on the topic *"Experiences of Students with Orthopaedic Impairment in Inclusive Schools at Sekyere South District of Ashanti Region"*.

Thank you.

Yours faithfully,

DR. DANIEL S. Q. DOGBE
Ag. Head of Department

www.uew.edu.gh

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APPENDIX B

Interview Guide to be Administered

Access to School Facilities

1. What are your experiences concerning access to your school library.

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2. What do you think needs to be done to improve access to the school information and communication technology centres?

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 3. What are your experiences concerning getting access to the school toilet/urinal facility.

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4. How accessible is the school playing field to you?

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Experiences during Teaching and Learning

5. How often are you involved in classroom teaching and learning experiences?

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6. What are your experiences concerning the adaptation teachers make for you in the classroom in order to improve your performance?

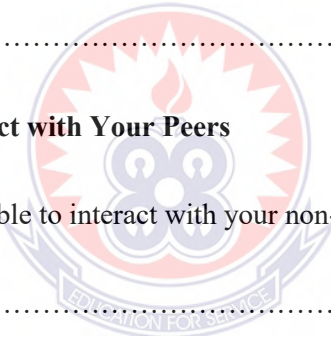………………………………………………………………………………………………

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7. From your experiences, what needs to be done by teachers in order to improve your participation in the classroom during teaching and learning?

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8. What are your challenges that affect you during teaching and learning?

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Experiences As You Interact with Your Peers

9. Which activities are you able to interact with your non-disabled peers?

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10. How often are you able to interact with your peers?

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11. From your experience, are all students ready to interact with you? If yes, which type of students interact with you?

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12. From your experience what needs to be done for all students to interact with those with physical disabilities.

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Experiences of students concerning the assistance they receive from relatives

13. Which of your parents give you maximum support?

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14. Do you receive equal support from your siblings? If yes fine, if no; which of them gives you greater support?

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15. How will you describe the support you receive from your parents?

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16. What needs to be done for your relatives to give you the support you need?

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