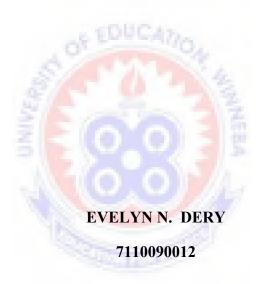
UNIVERSITY OF EDUCATION, WINNEBA

INCLUSION OF STUDENTS WITH SPECIAL NEEDS IN PRACTICAL PHYSICAL EDUCATION LESSONS AT THE SENIOR HIGH SCHOOL LEVEL IN TAMALE METROPOLIS



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7110090012

A Dissertation in the Department of HEALTH, PHYSICAL EDUCATION, RECREATION AND SPORTS, Faculty of SCIENCE EDUCATION, submitted to the School of Graduate Studies, University of Education, Winneba in partial fulfilment of the requirements for award of the Master of Education (Physical Education) Degree.

DECLARATION

STUDENT'SDECLARATION

I, EVELYN N DERY, declare that this dissertation, with the exception of quotations
and references contained in published works which have all been identified and duly
acknowledged, is entirely my own original work, and it has not been submitted, either
in part or whole, for another degree elsewhere.
Signature:
Date:
SUPERVISOR'S DECLARATION I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

Name Of Supervisor:

Signature:....

Date:....

ACKNOWLEDGEMENT

I wish to express my profound indebtedness and appreciation to Dr. Patrick B. Akuffo of the HPERS Department of the University of Education, Winneba who painstakingly went through my work; thoroughly reading through the manuscript, guiding, suggesting and advising me to come out with an acceptable final work.

My heartfelt gratitude also goes to the officers at the Tamale Metropolis Directorate and all Head Masters/Mistresses. My thanks also go teachers, parents and students for the various roles they played to make this research a success. I am especially grateful to FaustinaAmissah of HPERS Department, University of Education, Winneba who did the typing excellently.

DEDICATION

I dedicate this work to my dear husband and lovely children, and my brother for their encouragement and support for me during the period of this research work.



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ABSTRACT

The purpose of this study was to find out how students with special needs are included in practical physical education lessons. Adding, it was to find out the attitudes towards students with special needs if they are included in practical physical education lessons in the Tamale Metropolis. A descriptive research design was used with a sample size of 100 participants made up of 85 students and 15 Physical Education Teachers. The purposive sampling technique was employed to sample the participants. Eye-balling technique was also used to identify some Senior High Schools that have some students with special needs, then stratified sampling technique was used to categories the participants into three levels. Data were collected through questionnaires, unstructured interview and observation. And descriptive statistics of percentage was used to analyze the information collected. It was then ascertained that these disabilities existed - learning disabilities, speech delay or disorders and emotional or behavioural disorders. Meanwhile, students with special needs attended both practical and theory physical education class. Based on the findings, the following recommendations were made that Physical Education Teachers should modify physical education class to meet students' developmental needs. Refresher courses such as seminar/workshop should be organized for Physical Education Teachers to keep abreast with time in adapted physical activities.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Tamale Metropolis is located in the central part of the Northern Region. It is bounded by Yendi District to the South, Salaga District to the East, and Damongo District to the West. In fact, Tamale Metropolis is the regional headquarters of the Northern Region. In the field of education, particularly Senior High School education, the Metropolis has twenty-two (22) Senior High Schools. The public Senior High Schools are ten (10) and the private Senior High schools are twelve (12).

Time allocated for physical education is 80 minutes per week. This cuts across all Senior High Schools in the Tamale metropolis. It is a national standard stated in the Senior High Schools Physical Education Syllabus. The classes of these schools were very large. An approximate class population was 50 students in the public schools, whereas in the private schools it was 35 students per class. The large class sizes posed serious challenges for a single or two physical education personnel in a school to do effective teaching.

Facilities and equipment are basic needs for effective and efficient academic work in physical education. Each of the senior high schools could boast of a football field, volleyball court, an athletics oval, and handball court as well as football balls, and volleyball balls.

Physical Education is a core subject that should be taught in all Senior High Schools in Ghana Education Service (GES). Virtually, every Senior High school in the Metropolis has some kind of sports programme for its students added to the structured

and formal physical education curriculum. The Senior High School physical education programme has a weekly period of eighty minutes per week across all the Senior High Schools in the Metropolis.

In these schools there are fifteen trained physical education personnel and twelve untrained personnel teaching senior high school physical education. In spite of the difference in their professional training, they are required at this level to teach by socializing students into the role of participants in physical activities according to their needs and in physical activities according to their needs and interest (Wuest and Bucher, 1995).

It is almost an opinion today to discuss the current upsurge of interest in studies conducted into the need for teaching physical education to students with special needs. In fact, everywhere one could see joggers, walkers, cyclists, tennis and table tennis players, or football players. For many, this has resulted in a resurgence of life. It is a physical awakening, and, for some, it is spiritual awakening as well. Therefore, physical health and well-being acquired by people through physical education and sports programmes at all levels, particularly the senior High School level cannot be overemphasized. This of course is extremely satisfying for those who know how relevant physical education is, not only for one's optimal health and well-being, but for fun, entertainment, sociability and above all skill acquisition.

However, the most disturbing issue is that not everybody would be capable or able to participate in Senior High School practical physical education lessons at the same level of comfort and ease. The greatly increased enthusiasm and participation of students in practical physical education have come with many questions regarding

their health, safety and performance capabilities and comfort ability. Thus, students' active involvement in physical education, are in need of answers. They are demanding information about their bodies and health as against their performance potentialities. They also need information regarding their exercise, diet, injuries as well as the uncertainties about their abilities.

Many factors that prevent some students from inclusion in practical physical education classes are handicapping conditions. These disorders and special needs include cerebral palsy, epilepsy, deafness or hearing loss, emotional disturbance, attention deficit and hyperactivity disorder, learning disabilities, mental retardation, speech and language impairments, and visual impairments(Center for the Improvement of Child Caring, para. 3) which actually affect students exercise need.

Teaching physical education to students with special needs is not much different from normal teaching in classes of students without special need, especially learning disabilities. Students with learning disabilities (LD) may or may not need supports that are different from students without disabilities, depending upon their level of emotional maturity and ability to understand and practice the skills taught; except those who have specific deficits in coordination. Therefore, teachers of physical education need to choose their events or skills carefully to ensure that students with special needs will not be left out.

To ensure that physical education teachers adopt a holistic mainstreaming approach to teaching Senior High School Physical Education for continues participation of all students in physical education there is the need to guarantee access and equity for students with disabilities. This should be done within all physical education

programmes across all classes or levels. Issues of access and inclusion which are frequently seen as a separate component in physical education programmes that leads to the work being seen as something extra, an added burden, or even something that can be done in segregation or, and integrated education settings.

1.2 Statement of the Problem

Physical education is very vital in the development of individuals, especially adolescent at the Senior High School. In this place, physical education contributes to good health. Also, it promotes socialization. Although, one can derive significant benefits by actively participating in physical education it is rather shocking when it is realized that some students either cannot or do not engage in it resulting from their individual peculiar conditions or limitations. Even though, it is asserted that Physical Education and intramurals are necessary school activities that must be available to students with special needs, nevertheless, this is neglected in many Senior High Schools in Ghana that run the mainstreaming system of education.

1.3 Purpose of the Study

The purpose of this study was to find out how students with special needs are included in practical physical education lessons. Adding, it was to find out the attitudes towards the students with special needs if they are included in practical physical education lessons in the Tamale Metropolis.

1.4 Research Questions

The following research questions were answered in the study:

- ✓ How are students with special needs included in practical physical education?
- ✓ What is the attitude towards students with special needs?
- ✓ How are P.E lessons modified for students with special needs?

1.4 Significance of the Study

Participation in Senior High School physical education is a fundamental right for all students, irrespective of sex, race or ethnicity. Importantly, at the Senior High School level, practical physical education lessons are used to identify students with special talents in sport-related fields in the formation of school teams, for example, hockey team, football team and handball team. Also, as a result, national athletes and players might be developed. Similarly, the significance of senior High School physical education is vital to the individual students. Thus, physical education curriculum and instruction should be an experience that guides students to make significant health gains and experience mental and social development for good health. In view of this the findings would:

Help education authorities in Tamale Metropolis to understand how Senior High School practical physical education is taught amidst students with special needs and identify the necessary strategies' to address their special needs.

Contribute to, limited literature on the need to identify students with special needs in Senior High School practical physical education.

Create the awareness of the crucial role physical education plays in the development and growth of individuals with special needs.

Encourage all teachers involved in the teaching of physical education to involve individuals with special needs in practical physical education lessons.

1.5 Delimitation

The study focused on teaching Senior High School physical education in the Tamale Metropolis. This covered four schools in the Tamale North Metropolis, namely Northern School of Business Senior High, Tamale Islamic Senior High, Tamale Senior High, and Kalpohin Senior High.

1.6 Limitations

With reference to the topic, there was the need to have covered the whole Metropolis, and some other Districts of the region. Unfortunately, this could not have been achieved, based on the work schedules of the researcher, and time limits. Some participants were unwilling to give adequate information and, or respond to questionnaire and return them in the required numbers.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter was to review related literature on students with special needs in the physical education domain. The chapter was organized on the following topics:

- 1. Students with Special Needs in Physical Education.
- 2. AttitudesTowards Students with Special Needs.
- 3. Adaptation of Activity/Physical Education
- 4. Skill Practice of Students with Special Needs in Physical Education.

2.1 Students with Special Needs in Physical Education

Education is a powerful instrument of social change and structure thereby, helping to bridge the gap between the different sections of society. The educational scene in the country has undergone major changes over the years, resulting in better provision of education and better educational practices.

Public Law 94 – 142 (Education for All Handicapped Children –1975) and the individual with Disabilities Education Act (IDEA) of 1990 guarantee all children with disabilities from ages three to twenty-two a free and appropriate education in the least restrictive environment. That education includes physical education as a direct service-one that must be provided for all students (Graham, Holt& Parker, 2001).

Graham et al (2001) further espoused the importance to include students with societal needs in physical education in every sphere of a total educational policy. Children with disabilities are children with conditions that affect the ways in which they learn and perform physical and motor skills and activities. Physical education programs that include children with disabilities have the same basic goals and objectives as physical education programs for all students. Students with special needs in this context would include students with intellectual disabilities, emotional disorders, hearing and visual impairment, neurological and muscular disorders, cardiac and respiratory disorders, multiple handicaps and health-related impairment conditions to mention a few.

On the whole, National Disability Authority (2013) in viewing education legislation generally emphasized that, "the Education Act, 1998 states that there is a statutory duty on the Minister to ensure that appropriate education and support services are available to everyone, including every person with a disability or other special educational needs" (p.8 of 30). According to the authority, persons with disabilities can succeed in mainstream systems of education at both primary and secondary schools levels.

It therefore implies that no student with disability should be left out of practical physical education since the subject is part and parcel of the total education system in Ghana. Physical education teachers have the responsibility to ensure that physical activities are adapted to accommodate all students in physical education class.

Again, the National Disability Authority (2013) on the Education for Persons with Special Educational Needs Act, 2004 emphasized among other things that "the Act provides that children with special needs are to be educated in an inclusive setting unless this would not be in the best interests of the child or the effective provision of education for other children in the mainstream environment" (p.9 of 30). This connote that appropriate activities should be given children with disabilities in physical education according to their individual interest and degree of impairment.

Heyam (2009) on academic integration of children with special needs states that "with the social awakening concerning children with special needs, the academic integration of these children into regular schools became essential both for the person with a need and as a solution to a problematic situation" (p.166). According to the author, the inclusion of students with special needs in regular setting would improve their mental and social skills significantly.

Some decades ago, policies on inclusive education have resulted in increased integration of children with disabilities into mainstream schools. Inclusive education encourages the acceptance of children with disabilities by their non-disabled peers and can bring about social gains for all children. But negative attitudes are considered to be a major barrier to complete inclusion of students with special needs in schools thereby hindering their full inclusion and participation in practical physical education.

Inclusion encompasses physical inclusion, social inclusion and instructional inclusion. Emphasis is on instructional inclusion. This signifies the degree of involvement of children with disabilities in learning activities with regular class students (Sherril, 1998, p.212). This is linked with the learning objectives of a student with special needs as well as the availability of resources to enforce inclusion as against the learning objectives of those their peers without disability. In view of this, the Individuals with Disabilities Education Act (IDEA), Public Law 108-466 (2004), states that "physical education is a required service for children and youth between the ages of 3-21 who qualify for special education services because of a specific disability or developmental delay" (Judith, Tina & Lori, 2013, p.8). Special education refers toespeciallywell designed instruction in physical education that is at no cost to the parents, to meet the unique needs of a child with a disability.

2.2 Attitudes Towards Students with Special Needs

All over the world, people look down upon others, most especially when one is not able to perform as he/she should, then it becomes a matter of making him or her inferior. People with special needs in our school set-ups are bedeviled with a lot of stigma when it comes to participation in physical education. While some teachers abuse students for not being in the position to perform based on their abilities, their colleagues ridicule them.

In 1990, a landmark law, the Americans with Disabilities Act (ADA) (P1.101-336)was passed.

This law seeks to end discrimination against individuals of all ages with disabilities and to remove barriers to their integration into the economic and socialmainstream of American Life... The effects of this law are far reaching. For example, the ADA mandates that all facilities, including recreational and

sport facilities, must provide equal access and equal services to individuals with disabilities. (Wuest& Bucher,1999).

The authors held the view that stigma; discrimination and barriers in societies when eliminated would pave ways for persons with disabilities to succeed when there is equity and accessibility to facilities.

Sherrill (1998), found that "Individual with disabilities, when asked, provide many examples of exclusion, rejection, and discrimination that hurt and demoralize. Physical inclusion is stressful when individuals are repeatedly ignored, hear derogatory remarks about themselves, or feel disliked or irrelevant" (p.212). The factors go on to make people with special needs feel neglected and in the end develop special hatred towards physical education.

Grames and Leverentz (2010), concluded that "it is important to understand the components of attitudes since understanding attitudes should help predict behavior toward persons with disabilities. Furthermore, the relationship between attitudes and behavior is complex, and attitudes only account for a small part of behavior" (p.1). In the view of the authors, attitudes are categorized as affective, cognitive, and behavioral.

The affective categorydepicts the emotional portion of an attitude, while the cognitive category represents ideas and beliefs. The behavioral category describes a person's willingness to interact with persons with disabilities

There is however other factors that hamper educating children with disabilities. Such barriers to educating children with disabilities may be physical, social or financial.

According to the Department for International Development (DFID, p.3) School factors include low school budgets resulting in a lack of appropriate facilities, inaccessible school buildings, high pupil to teacher ratios, and limited support for children with disabilities, and teachers have inadequate training in inclusive methodologies and cannot deal with the range of children with disabilities.

Milson (2006), asserted that "for all students, negative attitudes and behaviors exhibited by peers can have long lasting effects." (p.6). According to the author, all categories of students can be affected by negative attitudes which certainly lead to academic problems, absenteeism, loneliness, and loss of friends.

2.3 Modification of P. E. Lessons for Students with Special Needs

The kinds of activities available for students who are eligible for adapted physical education vary greatly. Physical Education teachers should make changes to the rules, equipment, and instructions generally. So students with special needs may receive support in the regular physical education class. On the other hand, the student with special needs may receive direct teaching from adapted Physical Education teachers in a separate class that gives them opportunities to do well with activities in a safe environment.

Physical Education for a special needs student will develop physical and motor fitness; fundamental motor skills and patterns; and skills in dance, then individual and group games and sports including intramural and lifetime sports. So the implication of IDEA's laws is basically to integrate all children within instructional and extra class programs and to individualize the instructional strategies and activity areas to support

students with special needs. Some activities will have more restrictions than others and some will be less vigorous than others depending on the needs. The physical education teacher in conjunction with other supporting staff should decide if the physical education program requires mild, moderate or limited participation. It should be remembered that adapting, modifying, and changing the activity and, or equipment to meet the needs of the student with special needs is paramount. This may imply, larger balls, bats, partner assistance, using different body parts, and providing more rest time. The goal is to ensure that the student is progressing and having some form of success.

The National Consortium for Physical Education and Recreation for Individuals with Disabilities (NCPERID, 2012) defines adapted physical education as "Adapted physical education (APE) is physical education which may be adapted or modified to address the individualized needs of children and youth who have gross motor developmental delays."(p.4). The institution is of the view that when physical education content, instructional strategies, and environment are modified they solve and as well maximize individuals' learning styles, abilities and needs. To them that is adapted physical education.

There are no laid down procedures as to how students with special needs should be in a physical education class. However, some authorities suggest that in such a situation the teacher should be innovative enough to augment some of the rules to accommodate students with special needs.

Here are some suggestions for meeting their physical exercises needs:

- 1. Shorten time periods
- **2.** Shorten distances

- 3. Change the type of signals
- **4.** Use guide wires, ground surfaces with different sounding textures, handrails and similar devices.
- 5. Soften landing sports with mats.
- **6.** Allow two hands instead of one where accuracy or power is involved.
- 7. Change the rules so that they do not contain as many limiting conditions that lessen success.
- 8. Lower nets, baskets.
- **9.** Increase the size of striking implements and targets.
- **10.** Increase or decrease the size of the projectile such as the ball, discus, or javelin.

(French and Jansma, 1982).

To Include Handicapped and Non-Handicapped Students in a combined activity, use the following tactics.

- 1. Give different roles to the special students.
 - Examples: a blind person paddles a canoe in the bow, and the person in the stern steers, a person with one leg plays first base in softball.
- 2. Assign different tasks to the special students.
 - Examples: a cardiopathic student bats but does not run the bases; a paraplegic performs on the parallel bars and horse but not the vault.
- 3. Provide equipment that facilitates the tasks or role of the special student.
 - Example: provide larger bats, smaller balls, lighter weights, ramps for bowling.
- **4.** Make the activity easier for the special student.

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Examples: increase the size of the serving area in tennis; permit returns to

doubles boundaries rather than singles boundaries.

5. Ensure the safety of the special student.

Examples: employ a partner system; use extra mats.

According to Siedentop, Mand and Taggart (1986), "one may have to adjust

environmental factors such as lighting, acoustics, water, temperature, ventilation, and

architectural features when teaching classes that include handicapped students."

One also needs to avoid certain strategies.

1. Do not spread talent unequally between or among teams because of the

special students.

2. Do not assign the disabled students continuous scoring or officiating

functions.

3. Do not continually conduct elimination activities. (p.127).

Sherrill (1998), asserted that "many, many other students have psychomotor problems

serious enough to merit adapted physical education intervention." The author was of

the view that all persons with some sort of disabilities required modified activities as

well as ecology.

To ensure maximum inclusion of students with special needs in physical education

class Samuel and Paul (2013) opined that "quality adapted physical education

involves the physical educator differentiating instruction to meet the needs, interests,

and abilities of each individual student. That differentiation might involve the teacher

adapting/ modifying the content, process, environment, and/or student assessment"

(p.3).According to the authors, physical education instructors should give optimum attention to individual students, particularly those with disabilities to satisfy their learning needs because people's attitudes have serious consequences on students with special needs learning styles as well as their self-concept.

A number of programs could be initiated in an effort to address the training needs of school personnel and to facilitate positive interactions among all students. Self-awareness is important, however, and school counselors can benefit from taking time to honestly assess their own beliefs about and attitudes toward students with disabilities prior to accepting or volunteering to work on school-based interventions (Milson, 2013, p.5).

Although literature points out that students with special needs have the fundamental right to physical education, little was known about how they are included in practical physical education lesson at the senior high school level in the Tamale north metropolis as well as the attitudes of peopletowards students with special needs.

A large number of very good suggestions have been made on modifying lessons for students with disabilities in particular. Some of the recommendations stress equipment, for example, larger/lighter bat, larger goal/target, lower goal/target, and vary balls (size, weight, color, texture) as well as playing environment(decrease distance), use well-defined boundaries and simplify patterns (Stopka, 2013) including time, rules, cues and actions.

The adaption of practical physical education class should be structured in a way that every student benefits.

For all practical purposes, Adapted Physical Education is developmentally appropriate physical education at its finest. It involves differentiating instruction so the physical activity is as appropriate for the person with a

disability as it is for a person without a disability. The emphasis of adapted physical education is to facilitate participation of students with disabilities with typically developing peers in age-appropriate activities (NCPERID).

In many situations, for some students with disabilities, accomplishing daily tasks such as participating in activities can be a challenge. Therefore, they should be provided with special support to improve their functional independence. It is in this view that Stopka (2013) postulated that "Assistive Technology (AT) devices are tools to help overcome those challenges and enable people living with disabilities to enhance and have access to a quality of life, that may otherwise not be known, and lead more independent lives" (p.4).

Moreover, the student's nature of disability shall determine the type or medium of instruction. The disability should be professionally-assessed so as to inform the level of educational placement provision that benefits them. Similarly, Department of Education and Skills with regards to Section 2 of the Education for Persons with Special Educational Needs (EPSEN) Act 2004 recommends that "where placement in an integrated setting is considered to be the appropriate response, provision will normally take the form of resource teaching or special needs assistant support, or both, depending on the pupil's assessed level of need." (para.3). The Act requires that the student's condition should influence the nature of the teaching needed like resource teaching or special needs assistant support, or both.

2.4: Skill Practice of Students with Special Needs in Physical Education.

The key importance of students with special needs participation in practical physical education is the extent at which they are included in skill practice during lessons. When students with disabilities are included in mainstream practical physical education class they learn effectively where the whole lesson is structured to meet all students' needs.

A word of encouragement or feedback is a simple way for physical education teachers to promote physical activity among students with special needs. Praising young students for play may sound somewhat strange to most teachers; but for a generation that experiences limited physical activity, it may be necessary. Simply inquiring about student involvement in physical activity and praising students for that involvement carry weight with students with special needs.

Another role of the physical education teacher is to encourage and motivate students, especially with disabilities, to be active. There are many ways to do this, including promoting community activities, assigning physical activity homework or home fun, showing an interest in the out-of-class physically activity in which children participate, and leading by example.

In physical education, physical activity plays an important role in the lives of students as a medium for education, as a basis for healthy living, and as a medium for social inclusion and acceptance. Nonetheless, at an individual level, students tend to participate in practical physical education class if their experiences are positive

ones. "Positive experiences are generally characterized as those that are fun and that provide a sense of achievement and opportunities to learn and apply new skills" (Consultation Document, p.7). According to the document, students' interest and desire to learn in physical education class increased when they have achieved higher successes in accomplishing given tasks.

Physical education class is just one avenue during a school day that provides the opportunity for physical activity. During the allotted class time it is recommended that children with special needs be moderately or vigorously active for at least half of the class period. Several factors can contribute to making this happen:

- 1. Effectively organize space, equipment, and students.
- 2. Provide adequate equipment that allows all children to be active at the same time (e.g., one ball per child).
- 3. Limit teacher talk or instruction time.
- 4. Plan practice opportunities that are structured for maximum participation (e.g., individual, partner, and small-group activities; no elimination activities; activities that require no wait time).
- 5. Structure the class so that learning occurs while students are being physically active.

With maximum and quality activity time, children become more skilled, knowledgeable, and physically fit. The physical education teacher has unique responsibilities in the school physical activity program to ensure that students are physically active within the physical education class. The physical education teacher

also has the responsibility to help direct and guide opportunities for physical activity within the school outside the physical education class for students with special needs.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

Even though Ghana Education Service established physical education as a compulsory core subject which should be taught in all Senior High Schools in Ghana, nevertheless it is neglected in many of those schools that run the mainstream system rendering the students with special needs as the worse off recipients of benefits that accrue from being physically active. The purpose of this study therefore, was to ascertain the inclusion of students with special needs, especially in practical physical education lessons in the Tamale Metropolis.

This section of the study was discussed under the following sub-headings.

- 1. Research Design
- 2. Population
- 3. Sample and Sampling Technique
- 4. Instrumentation
- 5. Validity and Reliability of Instrument
- **6.** Data Collection Procedure
- 7. Data Analysis Procedure.

3.1 Research Design:

Descriptive research design was used. It helps provide answers to the questions who, what, when, where and how associated with a particular research problem. It was used to obtain information concerning the current status of the phenomenon and to describe "what exists" with respect to variables or conditions in situation.

It was useful in developing a more focused study on the inclusion of students with special needs in physical education. It also yielded very rich data that lead to important recommendations about the subject matter. Again, it helped in collecting extensive data using many instruments to establish in-depth understanding of the phenomenon.

3.2 Population:

Population isany set of people or events from which the sample is selected and to which the study results will be reflected or generalized. All the 22 Senior High Schools in the Tamale metropolis formed the population for the research.

For the fact that in many cases researchers cannot effectively study an entire population there is the need for a target population. Target population refers to the entire group of individuals or objects to which researchers are interested in making generalizations on the conclusions. All the four Senior High Schools in the Tamale North Metropolis in the Northern Region of Ghana constituted the target population of the study. Northern School of Business Senior High School in particular had one thousand, nine hundred and forty-two (1,942) students and two physical education teachers. Tamale Islamic Senior High School also had one thousand, four hundred and fifty (1,450) students and two physical education teachers. Then Tamale Senior High School had two thousand, seven hundred and forty-seven (2,747) students and three physical education teachers. Lastly, Kalpohin Senior High School had one thousand four hundred and three (1,403) students and two physical education teachers.

Again, another type of population that is much sizable for researchers to work with is an accessible population. The accessible population is the population in research to which the researchers can relate their conclusions. This population is a subset of the target population. It is from the accessible population that researchers take their sample populations. The accessible population of this research was two levels of classes of each of the four Senior High Schools.

3.3 Sampling and Sampling Technique

In defining a population for study, it must be specific enough to provide readers a clear understanding of the applicability of your study to their particular situation and their understanding of that same population. It therefore becomes important to select the proper method of sampling, the process by which representative individuals are randomly selected to provide insights into the entire population under study. The three methods used in this research included simple random sampling (eye-balling), stratified sampling and purposive sampling.

Eye-balling sampling technique was employed in identifying some Senior High Schools in the Tamale north metropolis that have some students with special needs. However, stratified random sampling technique was used in putting the students into three levels. Thus, level 1, level 2 and level 3 as SHS 1, SHS 2 and SHS 3 respectively. It involves dividing the population into subgroups, and random samples are chosen from these groups.

Purposive sampling denotes deliberate selection of subjects according to the researcher's consideration of their features typical of the sample population. It was used to get the two levels of classes of each of the four Senior High Schools as well as

all physical education teachers selected for the study. Therefore, the sample size was the number of students in all the eight classes and all physical education teachers in the Tamale North Metropolis.

3.4. Instrumentation

To find out about the inclusion of students with special needs, and attitudes shown towards them in practical physical education lessons at the Senior High Level, data collection was based on questionnaire, observation and interview. They aided the researcher in collecting sufficient data for analysis.

3.4.1 Questionnaire

Questionnaire is used to collect responses from persons in a geographical area of study about present practices, conditions and demographic data. The questionnaires were both closed and opened ended type. They were made up of items based on students with special needs inclusion, level of skill, modification of lessons for students with special needs and people's attitudes towards them. That is, they contained items based on inclusion of students with special needs built around the research questions, having 4 items per research question. Eightyes or no answer items, 2 true or false response items and 2 subjective items. Questionnaires were used to collect information about inclusion of students with special needs in practical physical education.

3.4.2 Observation:

Observation was also used to collect data. It does not rely on what people say they do, or what they think. It is seeing things occur in their natural settings. This gave the

researcher the chance to interact with participants in their natural setting so as to determine the data to collect. It was life observation. This observation method was useful to the researcher in a variety of ways. It provided theresearcher with ways to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and checked for how much time was spent on various activities by the participants.

3.4.3 Interview

It is a way for participants to get involved and talk about their views. The interview used to collect the data was unstructured. Unstructured Interview has no definite structure. It basically involves free-style discussions with interviewees always having the purpose of the study in mind. It is flexible and provides freedom in usage. It can unearth detailed information through probing on the subject matter. This gave interviewees the chance to express their opinions on issues in detail. It also gave the interviewer the chance to demand clarifications on issues during the interview.

3.5 Validity and Reliability of Instruments

The instruments were pilot tested by the researcher. Refinement of the instruments then took place. They were then used in the same form and followed the same administration procedures as used in the validation study.

3.6 Data Collection Procedure

The data were collected in three phases. In the first phase, questionnaires were used to gather the opinion of the participants on their inclusion in practical physical education lessons. Researcher personally administered the questionnaires to the

participants after telling them the reasons for them to take the exercise seriously. This was done in two days. The participants were grouped together in a class to answer the questionnaires in order to eliminate influences from teachers and other people, in every school.

In the second phase, there was life observation, thus using checklist in the various schools during some periods for practical physical education class. It was done three times. It took place in the various schools during the periods that the classes of the selected levels had practical physical education lessons. The observation of the classes focused on those students with special needs at a reasonable distance from the class.

In the third phase, unstructured interview was used to further find out the issues that came out of the questionnaires and life observation which required emphasis. This was done one-on-one basis. A two battery Pubuze brand tape- recorder was used to record the interview session of ten minutes for each participant in the English Language. Ten students with special needs were interviewed.

3.7 Data Analysis Procedure

All the data collected through the questionnaires, the observation and the interview were analyzed based on the research questions. Item by item approach was used for the analysis. This approach requires researchers to organize the data across all participants or interviewees and their answers so as to identify similarities and differences. Then during the analysis of the findings, the links and relationships between responses were considered. The data were generated and presented in

frequencies and percentages, tables and figures, using computer soft-wares, SPSS Programme.



CHAPTER FOUR

RESULTS, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents and discusses the data collected from the field in connection with the research conducted on the inclusion of students with special needs in practical physical education lessons at the Senior High School level in the Tamale Metropolis. The data we recollected from 90 students (10 with special needs and 80 non-disabled) and 10 physical education teachers. In total 100 participants were used for the research.

4.1 Analysis

The analysis was done based on themes connected with the research questions as follows:

- 1. Students with special needs in physical education.
- 2. Attitudes towards students with special needs.
- 3. Modification of physical education lessons.
- 4. Skill practice of students with special needs in physical education.

4.2: Students with Special Needs in Physical Education.

Table 1: Categories of disabilities

Condition	Yes	%	No	%
Blindness	7	7.09	39	3.0
Deafness	15	15.0	85	85.0
Learning difficulties	91	91.0	9	9.0
Speech delay/disorders	57	57.0	43	43.0
Emotional/behavioral disorders	49	49.0	51	51.0
Intellectual disability	22	22.0	78	78.0
Epilepsy	7	7.0	93	93.0
Diabetes mellitus	9	9.0	91	91.0
Hypertension	14	14.0	86	86.0
Orthopedic handicapping conditions	21	21.0	79	79.0

According to table 1, 100 participants were asked the same question about the kinds of students with special needs in their classes. The question requested them to answer yes or no. All the 100 participants responded appropriately to the question.

For blindness, 7 participants, representing 7% said there were students with the condition while 93 of the participants, representing 93% indicated that nobody had the condition. For the reason that 93% of the respondents did ascertain that no student had blindness it was the general opinion of the participants.

Concerning deafness, 15 participants, representing 15% showed that some students had deafness. But, 85 students, representing 85% stated that no student lived with the condition, deafness. With 85% higher response the participants did not ascertain the existence of the condition, deafness.

Talking about learning disabilities, 91 participants, representing 91% put it that there were students with learning disabilities, whereas 9 participants said that no student had learning disabilities. It was therefore their stand that there were students having learning disabilities since they ascertained the existence of it in some students.

With speech delay or disorders, 57 participants, representing 57% made it clear that some students had the condition. However, 43 participants, representing 43% showed that no student was having speech delay or disorders. In considering simple majority, the participants did ascertain that there were students with speech delay or disorders.

About emotional or behavioral disorders, 49 participants, constituting 49% indicated that there was no student with emotional or behavioral disorders while 51of those, representing 51% said that some students had emotional or behavioral disorders. Based on simple majority, the participants did ascertain that some students have emotional or behavioral disorders.

The participants in reacting to intellectual disability in some students saw 22 of them expressing their view that it was present in some individual students, but 78 of them, representing 78% showed that no student has mental retardation. They therefore did not ascertain existence of intellectual disability with some students.

Seven participants, representing 7% agreed that epilepsy was present with some students while 93 of them, representing 93% said that there was no student having epilepsy. Therefore, it was clear that the participants did not ascertain the existence of epilepsy.

For diabetes mellitus, 9 students, representing 9% said that some students had it. On the other hand, 91 students, representing 91% indicated that students have had no diabetes mellitus. So it was the general opinion of the participants that they did not ascertain existence of diabetes mellitus.

As shown on table 1, 14 participants, representing 14% pointed out that the condition hypertension was present in some students whereas 86 of them, representing 86% disagreed that it was present in some students. It was then the entire group position that they did not ascertain existence of hypertension.

When participants responded to orthopedic handicapping conditions, 21 (21%) of them said that some students have it. However, 79 participants, representing 79% indicated that the condition was not present in students. It was therefore their view that they had ascertained the existence of orthopedic handicapping conditions.

4.3: Attitudes towards Students with Special Needs.

Table 2: Students without Disability Work with Students with Special Needs

Response	Frequency	Percent
Yes	90	90.0
No	10	10.0
Total	100	100.0

According to table 5 the responses obtained from the participants basically talked about how people were willing to work with students with special needs in a physical education setting. The respondents were demanded by the question to say yes or no in response, and they all answered it correctly. As a result, 90 of the participants, constituting 90% answered clearly that students with special needs got other nondisabled friends in class to work with them in physical education class while 10 of them, representing 10% said that nondisabled people did not work with students with special needs. Nonetheless, it is clear that it was the group affirmation that students with special needs got their nondisabled colleagues to work with them in physical education class.

Table 3: Students with Special Needs Received Support

Response	Frequency	Percent
Yes	64	64.0
No	36	36.0
Total	100	100.0

To find out whether students with special needs got support from their colleagues nondisabled students the participants were asked a yes or no question regarding that.

All the participants answered the question as it demanded. As table 3 indicates 64 of the participants, representing 64% answered that those students received support during physical education class while 36 of them, representing 36% said that students with special needs did not get assistance in physical education class. However, it was the consensus of the group that students with special needs received support from other people around them in physical education class.

4.4: Modification of physical education lessons.

Table 4: Type of class Attended by Students with Special Needs

Class	Frequency	Percent
Practical	6	6.0
Theory	30	30.0
Practical/Theory	64	64.0
Total	100	100.0

An opinion question was posed to the participants to show the type of physical education class most suitable for students with special needs. Here, 6 (6%) of the participants said that practical physical education class was the most suitable physical education class for students with special needs, and 30 (30%) of them indicated that theory class was the most suitable for the physically challenged in physical education lesson, while 64 of them, representing 64% showed that both practical and theory class was the most suitable setting in physical education for students who are physically challenged. Therefore, the whole group asserted that the most ideal class for students with special needs is both practical and theory class.

Table 5: Type of Activities Performed by Students with Special Needs

Activity	Frequency	Percent	
Regular Activity	67	67.0	
Adapted Activity	33	33.0	
Total	100	100.0	

It was a great desire to find out about the type of activities students with special needs do in physical education class. So the participants were asked to indicate the type of activity such students do by choosing from two types of activities coded. They all answered the question. From table 4 67 of them, making 67% indicated that students with special needs participate in regular activities, and 33of the participants showed that they engaged in adapted activities in physical education class. Therefore, the participants overall view was that they engaged in regular physical activities in physical education class.

4.5: Skill practice of students with special needs in physical education.

Table 6: Students with Special Needs Desire Practical Physical Education

257/4	Frequency	Percent
Physical Fitness	74	74.0
Socialization	3	3.0
Emotional Satisfaction 🚃 🛑	23	23.0
Total	100	100.0

A particular question was posed to the participants to find out whether or not students with special needs needed practical physical education (physical activity). They were to give their opinion on the issue in writing briefly. Again, all the participants did write their views as required appropriately. So 74 of the respondents, representing 74% confirmed that students with special needs required activity in practical physical education for purposes of keeping fit in both health and skill related fitness. Then 3 of the participants, representing 3% concluded that students who are physically challenged needed practical physical education in order to socialize. Meanwhile, 23 of the participants indicated that students with special needs should have practical physical education for fun and emotional satisfaction. The participants then

concluded that practical physical education was necessary to the physically challenged for physical fitness benefits.

Table 7: Students with Special Needs Level of Participation

	Frequency	Percent
Frequently	25	25.0
Occasionally	36	25.0
Not often	30	30.0
Never	9	9.0
Total	100	100.0

In the quest to find out about the level of participation of students with special needs the participants were asked to state one out of four pre-coded answers concerning degree of participation in practical physical education class. They did it very well according to the demands of the question. From table 2, 25 (25%) of the respondents showed that students with special needs have frequently involved themselves in practical physical education. Then 36of them, representing 36% have the opinion that such students have occasionally participated in physical education class. And 30 participants, representing 30% were of the view that students with special needs not often got involved in practical physical education lessons, while 9 of them, representing 9% never play any role during physical education lessons. Even though students with special needs got minimum skill level of involvement, it was the respondents' agreement that those students were given opportunities to practice skills presented to students in physical education class.

Table 8: Observation of Students with Special Needs in Practical P.E Class

Name of student	Level	Activity	Participation	Skill Practice
Physically	SHS 2	Handball: Passing	``Yes	*Performance
challenged 1		and Shooting		
Physically challenged 2	SHS 2	Handball: Passing and Shooting	``Yes	*Performance
Physically	SHS 2	Handball: Attacking	-Yes	+Performance
challenged 3 Physically challenged 4	SHS 2	Volleyball: Attacking tactics	``Yes	*Performance
Physically challenged 5	SHS 2	Volleyball: Attacking tactics	``Yes	*Performance
Physically challenged 6	SHS 2	Volleyball: Attacking tactics	``Yes	*Performance
Physically challenged 7	SHS 1	Field events: Jumps (long and triple jumps	#Yes	+Performance
Physically challenged 8	SHS 1	Field events: Jumps (long and triple jumps	#Yes	+Performance
Physically challenged 9	SHS 1	Table Tennis: Service, Forehand and Backhand drives	``Yes	*Performance
Physically				
challenged 10	SHS 1	Table Tennis: Service, Forehand and Backhand drives	"Yes	*Performance

- *Performs correctly and effortless
- +Performs better and effortless
- "Yes-Participates in all 3 observations classes"
- #Yes-Participates in 2 observations classes
- -Yes-Participates in 1 observation class

In order to establish the participation and skill level of involvement of students with special needs in practical physical education class observations were carried out by the researcher. They were done three different days in the four Senior High Schools for the research study. During the observation it was noticed that all classes of the various schools did the same game or activity throughout the one month period of observation. Ten Students with Special Needs were identified from the Senior High Schools records with the help of the Guidance and Counseling Coordinators. These ten students were then observed in practical physical education lessons.

Students 1 and 2 with learning difficulties participated in a handball class. The skills instructed were passing and shooting. They were present in class during the three observations. They performed the skills correctly and efficiently. Their level of throwing and catching was quite accurate, much better than those without disability in the same class

Student 3 with epilepsy also participated in a separate handball lesson. The student was present in class during only one observation. The class was doing attacking drills, and the student was performing the activities correctly and effortlessly in anticipation for as well as reaction to passes and shooting at goal.

In another physical education class, students 4, 5, and 6 with emotional/behavioral disorders took part in volleyball lessons. They were all present in the three lessons observed. In the game of volleyball the class was learning how to attack and defend. And these students had very good ball reception, volley and spike.

Similarly, SHS 1 students 7 and 8 with speech delay/disorders also in a physical education class took active part in athletics lessons. They were however present in two of the three observations of practical physical education lessons. The lessons were conducted on field events, long jump and triple jump. They performed the skills of step, hop and jump in triple jump as well as the sail style in long jump correctly but with short distances.

Finally, students 9 and 10 with diabetes mellitus were included in physical education lessons on table tennis. They were present in the three lesson observation

schedules. They were performing both backhand drive and forehand drive correctly.

They could also serve very well.

On the other hand, the time allowed for them to participate was shorter than the time for their colleagues' nondisabled students in the same class. The physical education teachers explained that they did not need full class time involvement with physical exercises because of their peculiar conditions.

Interviewer (INTER): Please have you been taking part in practical PE lessons?	
	Students with special needs in P.E
D	
Participating student with special needs (PSSN)-1: Yes. I have	
been taking partsince I came into this school. PSSN-2: Yes.	
PSSN-3: Yes, I have been taking part.	
PSSN-4: Yes, I love practical PE, so I have been participating.	
PSSN-5: Yes, I have.	2
INTER: How many practical PE periods do you have in a week?	一
PSSN-1: Two periods a week.	
Pssn-2: Two per week.	
PSSN-3: Only two periods.	
PSSN-4: We have two periods per week.	
PSSN-5: One double period.	
INTER: Please could you mention some specific activities you	
do in such lessons?	
PSSN-1: I run, jump, throw, everything from start to close of lesson.	
PSSN-2: I do everything required of me in such lessons, like kicking,	
running, throwing.	
PSSN-3: I do many activities including running, jumping and carrying	5
equipment.	
PSSN-4: I play and practice skills introduced.	
PSSN-5: I do all activities from set-induction to closure of lessons.	
INTER: How do your colleagues receive you in practical PE lessons?	
PSSN-1: They make me feel at home during PE lessons	Aut 1 / 1 / 1 / 11
PSSN-2: They receive me with warmth and we do activities together.	Attitudes towards students with specia
	,
PSSN-3: They do all exercises with me. Give me support as and when	1
necessary. PSSN-4: They accept me in all lessons and we practice skills together.	
PSSN-5: My colleagues accept me and we learn together.	
1 5511-5. Mry concagues accept the and we learn together.	
INTER: What beliefs do they have about you in PE?	
PSSN-1: They think we can all do it.	
PSSN-2: They believe that I can make.	
PSSN-3: Some think that I am doing very well in it.	
PSSN-4: Some say PE is stressful and therefore not good for me.	
PSSN-5: Some are of the opinion that with my situation it helps me	
emotionally.	

Adaptation of activities

Skill practice of students with special

INTER: Do they interact with you in PE class?

PSSN-1: Yes, they do interact with me.

PSSN-2: They interact with me a lot.

PSSN-3: Yes, we interact more in it than other subject areas.

PSSN-4: Yes they do.

PSSN-5: Yes, everybody interacts with me.

INTER: Are the PE lessons modified or adapted to meet your peculiar

conditions?

PSSN-1: No.

PSSN-2: No. Not at all.

PSSN-3: No, they are not adapted for us.

PSSN-4: Lessons are not adapted for us.

PSSN-5: No. We do everything in the normal way.

INTER: Do you participate actively during skill practice periods?

PSSN-1: Yes I do.

PSSN-2: Yes

needs

PSSN-3: Yes, I take active part. in P.E

PSSN-4: Yes. Every skill introduced I practice it.

PSSN-5: Yes I do participate actively.

INTER: In the Handball lessons you were doing accurate passing

and shooting than others. What was your secret?

PSSN-1: My secret was that I was capable and able to do it; and

I did it.

PSSN-3: Ability lies in concentrated mind and determination. Yes,

I wanted to pose a serious challenge to my classmates.

In the transcript on table 9, students with special needs were included in practical physical education classes. Their inclusion encompassed managerial skills and skill practice, from set-induction to closure of lessons.

Again, students with special needs were valued, liked and accepted by both physical education teachers and classmates in physical education class more than in other subjects. Everybody interacted with them. This made them develop love for the subject. The positive attitudes they received enhanced their individual self-concept in physical education.

However, practical physical education lessons were not adapted for students with special needs. Modified physical education lessons address the individual students motor development needs. Despite, they managed in the general physical education class.

Students with special needs involvement in physical education is viewed at the extent to which they take part in skill practice. According to table 9, students with special needs actively took part in skill practice of physical education lessons. Success rates increased their sense of achievement and readiness to learn.

4.6: Discussions

The research findings revealed that there were students withlearning difficulties as well as speech delay or disorders in some of the Senior High Schools in Tamale North Metropolis. This type of students in spite of their conditions participated in physical education just like any other student at the Senior High School level. This affirms IDEA (1990) policy statement that allchildren with disabilities from ages three to twenty-two require a free and appropriate education in the least restrictive environment. It also concurs that the type of education that must be provided for all students includes physical education as a direct service (Graham, Holt & Parker 2001).

Even though in societies people with special needs in our school set-ups are faced with stigma when it comes to participation in physical education where some teachers abuse students for not being in the position to perform well based on their abilities, and worse off their colleagues ridicule them was clearly not in existence as revealed in the research work. This actually puts the Americans with Disabilities Act (ADA, 1990) (P1.101-336) into perspective. It however, disproves that physical inclusion is stressful when individuals are repeatedly ignored, hear derogatory remarks about

themselves, or feel disliked or irrelevant (Sherrill, 1998) as the students with special needs got people to support and work with them in physical education setting.

In addition, the students with special needs got their non-disabled friends who supported them and moreover were ready to work closely with them supports Milson (2013) argument that the school experiences of students with disabilities can be positively or negatively influenced by the attitudes and behaviors of students and staff and by general school policies. In situations where the influences are positive there are higher success rates recorded by the students. This should be seriously sought by every physical education teacher and, or school to promote conducive learning environments for students with special needs across all levels of education where such students are present. It seems likely that the majority of teachers would be more positive if they had more knowledge about students with disabilities and effective strategies for working with those students.

Teachers are being encouraged to help students develop cooperative relationships, and research examining student attitudes toward their peers with disabilities has suggested that contact with students with disabilities might lead to positive attitudes. They are also entreated to provide recommendations for promoting social interactions between students with and without disabilities. In addition to being able to interact cooperatively with each other, students benefit from gaining an appreciation for diversity in general.

It is very clear from the findings that students with special needs did not have their physical education teachers adapt activities for them according to their individual conditions. This violates French and Jasman (1982) assertion that the teacher should be innovative enough to augment some of the rules to accommodate students with special needs. It also implies that certain class ecological factors that hamper the progress of the students with special needs were not addressed which defies the recommendation that the physical education teacher may adjust environmental factors such as architectural features when teaching classes that include handicapped students (Siedentop, Mand& Taggart, 1986) to ensure their maximum participation and subsequent benefits.

To achieve adapted activities fully in physical education teachers should support students with special needs in physical activity settings, collaborate with school staff in providing physical education to students with disabilities to increase inclusion, assist in modifying curriculum to increase access and inclusion, and provide assisted devices to increase access to quality physical education through consultations with parents.

Again, it demystifies (Samuel & Paul, 2013) recommendation that the quality of adapted physical education involves the physical educator differentiating instruction to meet the needs, interests, and abilities of each individual student. Now it is clear that physical education teachers in the study area did not embrace the policy of adaptation of physical activity so as to include every student in physical education teaching and learning processes at the Senior High School level.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter is made up of the summary of the findings of the research. It also makes a number of conclusions and proffer recommendations for all stakeholders of education in the Tamale Metropolis as well as Ghana as a whole.

5.1 Summary of findings

The major objective of this project was to ascertain the inclusion of students with special needs in practical physical education lessons in the Senior High School level in the Tamale Metropolis. A set of questionnaire schedules was used for all the participants, students with special needs, nondisabled students and physical education teachers, and again unstructured interview used for the students with disabilities as well asobservation. The data were put into categories based on the research questions. Frequencies and percentages were used to analyse the data.

The following findings then emerged from the data of the research work.

- 1. It could not be ascertained of the existence of blindness.
- 2. It was not ascertained that deafness existed
- 3. It was ascertained that learning disabilities existed.
- 4. Speech delay or disorders was ascertained.
- 5. Some students have emotional or behavioral disorders were ascertained.

- 6. Students having intellectual disability was not ascertained to have existed
- 7. Students did not ascertain the existence of epilepsy.
- 8. Student did not ascertain the existence of diabetes mellitus.
- 9. Hypertension was not ascertained to have existed.
- 10. Students did not ascertain the existence of orthopedic handicapping conditions
- 11. Students with special needs were given opportunities to practice skills presented to them in physical education class.
- 12. Students with special needs received support from other people around them in physical education class.
- 13. Students with special needs engaged in regular physical activities in physical education class instead of adapted activities.
- 14. Students with special needs got their nondisabled colleagues to work with them in physical education class.
- 15. Students with special needs attended both practical and theory physical education class.

5.2 Conclusion

The research aimed at finding outthe inclusion of students with special needs in practical physical education lessons in the Senior High School level in the Tamale Metropolis. The research therefore revealed that categories of handicapping conditions that existed among students at the Senior High School level in the Tamale metropolis included emotional or behavioral disorders, speech delay or disorders, andlearning disabilities. It also came out clearly that students with special needs had moderate skill level of involvement in physical education class, got support from students without

special needs, and participated in regular physical activities in physical education class instead of adapted activities.

In conclusion, the researcher is of the view thateven though students with special needs were included in physical education lessons in the Tamale Metropolitan Senior High Schools much is still desired to be done to ensure their fullest participation to reap the benefits that accrue from physical activities. Although mainstreaming and inclusion are conceptually different, both relate to the idea of integrating students with disabilities into regular education classrooms. Therefore, negative societal implications should be dealt withto ensure that these students have positive school experiences, develop skills for future academic and career success, develop social skills, and enjoy emotional health.

5.3 Recommendations

In view of the findings of the study, the following recommendations were made with the view of helping stakeholders of education to improve upon the teaching of physical education to the benefit of all students in accordance with their individual needs.

- 1. In order for all students to make maximum gains from participating in practical physical education, physical education teachers should identify students with special needs.
- 2. School administration should demand certified medical report on health status from every student admitted into senior high school.
- 3. Based on students' health bio-data physical education teachers should plan practical physical education lessons, and adapt activities to suit their individual conditions.
- 4. Physical Education Teachers should encourage and include every student in their class.

5. To provide physical education for all students, Education Directorate, Metropolitan Assembly, Traditional Authority, and Parent Teacher Associations should collaborate to supply equipment to senior high schools for the teaching of physical education.

5.4 Recommendations For Further Research

Some areas of the topic which could have been investigated were left out. This study, as it is had been limited to the Tamale metropolis in the Northern Region of Ghana. Therefore, it is suggested that further research could be done to evaluate the inclusion of students with special needs in practical physical education class and the modification of physical education lessons at that level in the entire region.

REFERENCES

American Alliance for Health, Physical Education, Recreation and Dance. (2008).

National Association for Sport and Physical Education.

American Educationl Research Journal. (1992). A Quarterly Publication of the American

Educational Research Association. Volume 29, Number 1-spring1992

Americans with Disabilities Act. (1990). Retrieved 24/10/13.

Website:www.eeoc.gov/eeoc/history/35th/1990s/ada.html

- Anastas, J. W. (2nded.) Research Design for Social work and the Human Services.

 Chapter 5, Flexible Methods: Descriptive Research. New York:

 Columbia University Press, 1999. Retrieved: July 19, 2013. Website: libguides.usc.edu>Libraries>LibGuides by R. Labaree-2013.
- Annabel, B, K. (2005). *Using interviews as research instruments*. Retrieved19/07/13. Website:http://www.culi.chula.ac.th/e-journal/bod/annabel.pdf
- Campbell, J., Gilmore, L. & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion.
- Center, Y., & Ward, J. (1987). Teachers' attitudes towards the integration of disabled Children into regular schools. The Exceptional Child, 34, 41-56.
- Centre for the improvement of child caring. Retrieved 24/10/13.

 Website:https://www.facebook.com/.../centre-for-the-improvement-of-child-cari...
- Charles, D., Attah,k.k, & Ayensu, E.K.(2006). *Teaching Physical Education: AGuide ToTeachers*. Printed and Bound by Learners' Publishers. P.O.box KSI200, Kumasi. Tel.051-822993.

- Claudine, S. (1998). Adapted Physical Activity, Recreation and Sport: CrossdisiciplinaryandLifespan.WCB/McCraw-Hill.
- Cohen, L., Manion, L. & Morrison, K. (2000). *Research Methods in Education* (5thed). London: Routledge Falmer.
- Consultation Document. Physical Education, Physical Activity and Sport for Children. Retrieved August 9,2013. Website: www.getirelandactive.ie/content/wp.../PDST Get-Active-final-proof 1.pdf
- Dale, D. (2006). Population Sampling Methods for Research Studies: Definitions and Uses. Retrieved: August 9, 2013. Website: voices. yahoo.com/population-sampling- methods-research-studies-definit...
- Dattalo, B and Hammond, J. (2011). Adaptations for students with special needs in Physical Education and Sport
- Department for International Development. Guidance Note: A DFID practice paper.
- Department of Education and Skills. Section 2 of the Education for Persons with Special Educational Needs Act 2004. Retrieved August 20, 2013.

 Website:www.education.ie> Home > The Education System.
- Dettmer, P., Thurston, L.P., &Dyck, N. J. (2005). Consultation, Collaboration, and Teamwork for Students with Special Needs, 5/E. Allyn & Bacon/Longman
- Education for Persons with Special Educational Needs Act. (2004). Retrieved 24/10/13website:www.nda.ie>Home>Education>Education Publications Forlin, C., Douglas, G., & Hattie, J. (1996). Inclusive practices: How accepting are Teachers? *International Journal of Disability, Development and Education*, 43(2), 119-133.
- French, R. &Jansma, P. (1982). *Physical Education for children with Prader-Willi Syndrome*. Retrieved August 20, 2013. Website: www.thefreeelibrary

.com/Physical+education+for+children+with+Prader+Willi+syndrome .-a013254215.

Gallahue, D, L. (1992). Developmental Physical Education for Today's Children.

George, G. (2008). Teaching Children Physical Education: Becoming a master Teacher. Retrieved: July 31, 2013. From Retrieved books.google.com.gh/bks?isbn= 07360662106.

Gilmore, L., Campbell, J., &Cuskelly, M. (2003). Developmental expectations, personality stereotypes, and attitudes towards inclusive education:

community and teacher views of Down syndrome. *International Journal of Disability, Development and Education*, 50(1), 67-78.

Graham G., Holt, S.A. & Parker, M. (2001). Children moving. A reflective approach toteaching physical education. Mayfield publishing company Mountain View, California London. Toronto.

Grames, M. &Leverentz, C. (2010). *Attitudes towards Persons with Disabilities- A comparison of Chinese and American Students*. Retrieved August 19,

2013. website:www.uwlax.edu/ure/JUR-online/PDF/2010/grames &

Leverentz.pdf

Guernsey, K., Nicoli, M & Ninio, A. (2002). Convention on the rights of Persons with Disabilities: Its Implementation and Relevance for the World Bank

- Retrieved August 19, 2013. Website:www.siteresources.worldbank.org/
 .../Resources/SP.../Disabilities-DP/0712.pdf
- Heyam, L.E. (2009). Education Research and Review Vol. 4(4), pp. 164-172
- Holt-Hale, G. (5thed). *Children moving*: A reflective approach to teaching physical education. Mountain view, CA: Mayfield.
- Joan, J. C. (2009). *Research Population*. Retrieved: August 17, 2013. Website:Explorable .com.>Research>Methods
- Judith, R., Tina, H., & Lori, W. (2013). The Role and Responsibilities of the Physical Education Teacher in the School Physical Activity Program
- Kjesbo, R.R. (2013). Adapted P.E-Physical Education for Children with Special Needs.
- Kusi,H. (2012). *Doing qualitative research: a guide for researchers*. Emmong press, Accra-New Town.
- McNabb, C. (2nded.). *Descriptive Research Methodologies. PowerPoint**Presentation.New York: Columbia University Press,1999. Retrieved: July 19,
 2013. Website: libguides.usc.edu>Libraries>LibGuides by R. Labaree-2013.
- Milson, A. (2013). Creating Positive School Experiences for Students with Disabilities
 . Professional School Counseling Journal, October 2006, 10(1), 66-72.
- National Association for Sport and Physical Education. Teaching Tools. Retrieved: 31

 July, 2013, Website: http://www.aahperd.org >... > Publications and Resources

 Teaching Tools.

- National Association for Sport and Physical Education. (2007). Appropriate

 Instructional Practice Guidelines for Elementary School Physical Education.
- APosition Statement from the National Association for Sport and Physical EducationRetrieved: 31July, 2013. Website:www.aapherd.org>...>Natioal Guidelines
- National Cancer Association. Classification of Laws Associated with School Students

 Volume 1 Issue 1. CLASS.CANCER.GOV. Retrieved: 31July, 2013.

 Website:http://class.cancer.gov/docs/brief-voll-issue1.pdf
- National Consortium for Physical Education and Recreation for Individuals with Disabilities. (2012). Retrieved August 22, 2013. Website:www. linkedin.com/.../National-Consortium-Physical-Education-Recreation.
- National Disability Authority. (2013). The Experiences of Students with Physical Disabilities in Second Level Schools.
- National Resource Center on ADIHD: A program of CHADD. *Individuals with Disabilities Education Act (IDEA) of 1990*. Retrieved August 20, 2013. website:www.help4adhd.org/edu/rights/idea.
- Pangrazi, R.P. (1998). *Dynamic Physical Education for Elementary School Children*.

 Needh Heights, MA: Allyn and Bacon.
- Pangrazi, R.P. & Dauer, V.P. (1995). *Dynamic Physical Education for Elementary School Children*. Macmillan publishing company.
- Pufaa,H.A. & Adeniji, A.B. (2008). Approaches to research in physical education and Sports E.F. Printing Hse no 55/11A, Abasraba, Opp. Winneba library, Winneba, Ghana.
- Pufaa, H.A., Agbeko, W.W, & Amui, J.C. (2009). Foundations of physical education and sport. Akwa Impression, Winneba, Ghana.

- Resic, M.C., Seidel, B.I., & Mason, J.G. (1999). *Modern administrative practices in physicaleducation and athletics*. Addison-Wesley publishing company.
- Samuel, R. H. & Paul, J. (2010). *Physical Education Majors' Attitudes toward Teaching Students with Disabilities*.
- Sherrill, C. (1998). Adapted Physical Activity, Recreation and Sport Crossdisciplinary

 Lifespan. WCB McGraw-Hill.
- Siedentop, D. (1991). Introduction to physical education, fitness, and sport. McGraw-Hill.
- Siedentop, D., Mand& Taggart. (1986). Teaching and Learning How to teach Sport

 Education. Retrieved August 19, 2013. Website:www.etd.auburn.edu/

 Etd/bitstream/handle/.../SINELNIKOV_OLEG_48.pdf
- Siedentop, D. & Tannehill, D. (2000). Developing Teaching Skills in Physical Education (4thedition). California: Mayfield.
- Smith, P.J., Mathews, K.S., Hehir, T. & Palfrey, J.S. (2001). *Padiatricians and the Education of children with disabilities*. Retrieved August 19, 2013.

 Website:www.almosthomekids.net/.../Pediatricians-and-the-Education-of-children-with...
- Stopka, C. (2013). Adaptations for specific activities. Excerpts from the PE central book entitled: Teachers Survival Guide Book. Retrieved August 5, 2013.

Website: www.pecentral.org/adapted/adaptedactivities.html.

- The U.S. Department of Education. (2011). Creating Equal Opportunities for Children and Youth with Disabilities to Participate in Physical Education and Extracurricular Athletics. Washington, D.C
- U.S Department of Education. (2011). Creating Equal Opportunities for Children and

 Youth with Disabilities to Participate in Physical Education and

 Extracurricular Athletics.
- Vignes, C., Coley, N., Grandjean, H., Godeau, E., and Arnaud, C. (2008). Measuring

 Children's attitudes towards peers with disabilities: a review of

 instruments.
- Wuest, D.A., & Bucher, C.A. (1995). Foundations of physical education and sport.

 McGraw-Hill.
- Wuest, D.A., & Bucher, C.A. (1999). Promoting Physical Activity in Children and Youth. Boston, Mass: WCB/McGraw Hill; 1999: 146-193

APPENDIX A

Involvement of Students with Special Needs in Practical Physical Education Lesson Questionnaire.

1.	1. Check the categories representing students with special needs in your class.							
	(a) Blindness	Yes	No					
	(b) Deafness	Yes	No					
	(c) Learning difficulties	Yes	No					
	(d) Speech delay or disorders	Yes	No					
	(e) Emotional/behavioural disorders	Yes	No					
	(f) Mental retardation	Yes	No					
	(g) Epilepsy	Yes	No					
	(h) Diabetes mellitus	Yes 🔲	No					
	(i) Hypertension	Yes	No					
	(j) Orthopedic handicapping conditions	Yes	No					
2.	Do they take active part in practical P. E. Lessons	Yes 🔲	No					
3.	3. Does the PE teacher adapt activities for them? True True False							
4.	Does the PE teacher give them special attention? True False							
5.	5. What is their level of participation in practical lessons?							
	(a) regular							
	(b) irregular							
6.	Do students with special needs receive support from "norm	nal" students?						
	Yes No							
7.	What kind of activities do students with special needs perfe	orm?						
	Regular Activity Adapted Activity							
8.	8. Would you like to work with a student with a special need?							
	Yes No							
9.	9. What type of classes can students with special needs attend?							
10. According to your opinion, why do students with special needs require								
	practical PE?							

APPENDIX B

Inclusion of Students with Special Needs in Practical Physical Education class observation form.

Form..... Discipline Observer..... Date........

Name Activity Skill Practice Participation



Record the appropriate action for each segment above. Indicate * (Performs correctly and effortless) or + (Performs better and effortless) for skill practice, and yes or no for participation.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Tamale Metropolis is located in the central part of the Northern Region. It is bounded by Yendi District to the South, Salaga District to the East, and Damongo District to the West. In fact, Tamale Metropolis is the regional headquarters of the Northern Region. In the field of education, particularly Senior High School education, the Metropolis has twenty-two (22) Senior High Schools. The public Senior High Schools are ten (10) and the private Senior High schools are twelve (12).

Time allocated for physical education is 80 minutes per week. This cuts across all Senior High Schools in the Tamale metropolis. It is a national standard stated in the Senior High Schools Physical Education Syllabus. The classes of these schools were very large. An approximate class population was 50 students in the public schools, whereas in the private schools it was 35 students per class. The large class sizes posed serious challenges for a single or two physical education personnel in a school to do effective teaching.

Facilities and equipment are basic needs for effective and efficient academic work in physical education. Each of the senior high schools could boast of a football field, volleyball court, an athletics oval, and handball court as well as football balls, and volleyball balls.

Physical Education is a core subject that should be taught in all Senior High Schools in Ghana Education Service (GES). Virtually, every Senior High school in the Metropolis has some kind of sports programme for its students added to the structured

and formal physical education curriculum. The Senior High School physical education programme has a weekly period of eighty minutes per week across all the Senior High Schools in the Metropolis.

In these schools there are fifteen trained physical education personnel and twelve untrained personnel teaching senior high school physical education. In spite of the difference in their professional training, they are required at this level to teach by socializing students into the role of participants in physical activities according to their needs and in physical activities according to their needs and interest (Wuest and Bucher, 1995).

It is almost an opinion today to discuss the current upsurge of interest in studies conducted into the need for teaching physical education to students with special needs. In fact, everywhere one could see joggers, walkers, cyclists, tennis and table tennis players, or football players. For many, this has resulted in a resurgence of life. It is a physical awakening, and, for some, it is spiritual awakening as well. Therefore, physical health and well-being acquired by people through physical education and sports programmes at all levels, particularly the senior High School level cannot be overemphasized. This of course is extremely satisfying for those who know how relevant physical education is, not only for one's optimal health and well-being, but for fun, entertainment, sociability and above all skill acquisition.

However, the most disturbing issue is that not everybody would be capable or able to participate in Senior High School practical physical education lessons at the same level of comfort and ease. The greatly increased enthusiasm and participation of students in practical physical education have come with many questions regarding

their health, safety and performance capabilities and comfort ability. Thus, students' active involvement in physical education, are in need of answers. They are demanding information about their bodies and health as against their performance potentialities. They also need information regarding their exercise, diet, injuries as well as the uncertainties about their abilities.

Many factors that prevent some students from inclusion in practical physical education classes are handicapping conditions. These disorders and special needs include cerebral palsy, epilepsy, deafness or hearing loss, emotional disturbance, attention deficit and hyperactivity disorder, learning disabilities, mental retardation, speech and language impairments, and visual impairments(Center for the Improvement of Child Caring, para. 3) which actually affect students exercise need.

Teaching physical education to students with special needs is not much different from normal teaching in classes of students without special need, especially learning disabilities. Students with learning disabilities (LD) may or may not need supports that are different from students without disabilities, depending upon their level of emotional maturity and ability to understand and practice the skills taught; except those who have specific deficits in coordination. Therefore, teachers of physical education need to choose their events or skills carefully to ensure that students with special needs will not be left out.

To ensure that physical education teachers adopt a holistic mainstreaming approach to teaching Senior High School Physical Education for continues participation of all students in physical education there is the need to guarantee access and equity for students with disabilities. This should be done within all physical education

programmes across all classes or levels. Issues of access and inclusion which are frequently seen as a separate component in physical education programmes that leads to the work being seen as something extra, an added burden, or even something that can be done in segregation or, and integrated education settings.

1.2 Statement of the Problem

Physical education is very vital in the development of individuals, especially adolescent at the Senior High School. In this place, physical education contributes to good health. Also, it promotes socialization. Although, one can derive significant benefits by actively participating in physical education it is rather shocking when it is realized that some students either cannot or do not engage in it resulting from their individual peculiar conditions or limitations. Even though, it is asserted that Physical Education and intramurals are necessary school activities that must be available to students with special needs, nevertheless, this is neglected in many Senior High Schools in Ghana that run the mainstreaming system of education.

1.3 Purpose of the Study

The purpose of this study was to find out how students with special needs are included in practical physical education lessons. Adding, it was to find out the attitudes towards the students with special needs if they are included in practical physical education lessons in the Tamale Metropolis.

1.4 Research Questions

The following research questions were answered in the study:

✓ How are students with special needs included in practical physical education?

- ✓ What is the attitude towards students with special needs?
- ✓ How are P.E lessons modified for students with special needs?

1.4 Significance of the Study

Participation in Senior High School physical education is a fundamental right for all students, irrespective of sex, race or ethnicity. Importantly, at the Senior High School level, practical physical education lessons are used to identify students with special talents in sport-related fields in the formation of school teams, for example, hockey team, football team and handball team. Also, as a result, national athletes and players might be developed. Similarly, the significance of senior High School physical education is vital to the individual students. Thus, physical education curriculum and instruction should be an experience that guides students to make significant health gains and experience mental and social development for good health. In view of this the findings would:

Help education authorities in Tamale Metropolis to understand how Senior High School practical physical education is taught amidst students with special needs and identify the necessary strategies' to address their special needs.

Contribute to, limited literature on the need to identify students with special needs in Senior High School practical physical education.

Create the awareness of the crucial role physical education plays in the development and growth of individuals with special needs.

Encourage all teachers involved in the teaching of physical education to involve individuals with special needs in practical physical education lessons.

1.5 Delimitation

The study focused on teaching Senior High School physical education in the Tamale Metropolis. This covered four schools in the Tamale North Metropolis, namely Northern School of Business Senior High, Tamale Islamic Senior High, Tamale Senior High, and Kalpohin Senior High.

1.6 Limitations

With reference to the topic, there was the need to have covered the whole Metropolis, and some other Districts of the region. Unfortunately, this could not have been achieved, based on the work schedules of the researcher, and time limits. Some participants were unwilling to give adequate information and, or respond to questionnaire and return them in the required numbers.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter was to review related literature on students with special needs in the physical education domain. The chapter was organized on the following topics:

- 1. Students with Special Needs in Physical Education.
- 2. Attitudes Towards Students with Special Needs.
- 3. Adaptation of Activity/Physical Education
- 4. Skill Practice of Students with Special Needs in Physical Education.

2.1 Students with Special Needs in Physical Education

Education is a powerful instrument of social change and structure thereby, helping to bridge the gap between the different sections of society. The educational scene in the country has undergone major changes over the years, resulting in better provision of education and better educational practices.

Public Law 94 – 142 (Education for All Handicapped Children –1975) and the individual with Disabilities Education Act (IDEA) of 1990 guarantee all children with disabilities from ages three to twenty-two a free and appropriate education in the least restrictive environment. That education includes physical education as a direct service-one that must be provided for all students (Graham, Holt& Parker, 2001).

Graham et al (2001) further espoused the importance to include students with societal needs in physical education in every sphere of a total educational policy. Children with disabilities are children with conditions that affect the ways in which they learn and perform physical and motor skills and activities. Physical education programs that include children with disabilities have the same basic goals and objectives as physical education programs for all students. Students with special needs in this context would include students with intellectual disabilities, emotional disorders, hearing and visual impairment, neurological and muscular disorders, cardiac and respiratory disorders, multiple handicaps and health-related impairment conditions to mention a few.

On the whole, National Disability Authority (2013) in viewing education legislation generally emphasized that, "the Education Act, 1998 states that there is a statutory duty on the Minister to ensure that appropriate education and support services are available to everyone, including every person with a disability or other special educational needs" (p.8 of 30). According to the authority, persons with disabilities can succeed in mainstream systems of education at both primary and secondary schools levels.

It therefore implies that no student with disability should be left out of practical physical education since the subject is part and parcel of the total education system in Ghana. Physical education teachers have the responsibility to ensure that physical activities are adapted to accommodate all students in physical education class.

Again, the National Disability Authority (2013) on the Education for Persons with Special Educational Needs Act, 2004 emphasized among other things that "the Act provides that children with special needs are to be educated in an inclusive setting unless this would not be in the best interests of the child or the effective provision of education for other children in the mainstream environment" (p.9 of 30). This connote that appropriate activities should be given children with disabilities in physical education according to their individual interest and degree of impairment.

Heyam (2009) on academic integration of children with special needs states that "with the social awakening concerning children with special needs, the academic integration of these children into regular schools became essential both for the person with a need and as a solution to a problematic situation" (p.166). According to the author, the inclusion of students with special needs in regular setting would improve their mental and social skills significantly.

Some decades ago, policies on inclusive education have resulted in increased integration of children with disabilities into mainstream schools. Inclusive education encourages the acceptance of children with disabilities by their non-disabled peers and can bring about social gains for all children. But negative attitudes are considered to be a major barrier to complete inclusion of students with special needs in schools thereby hindering their full inclusion and participation in practical physical education.

Inclusion encompasses physical inclusion, social inclusion and instructional inclusion. Emphasis is on instructional inclusion. This signifies the degree of involvement of children with disabilities in learning activities with regular class students (Sherril, 1998, p.212). This is linked with the learning objectives of a student with special needs as well as the availability of resources to enforce inclusion as against the learning objectives of those their peers without disability. In view of this, the Individuals with Disabilities Education Act (IDEA), Public Law 108-466 (2004), states that "physical education is a required service for children and youth between the ages of 3-21 who qualify for special education services because of a specific disability or developmental delay" (Judith, Tina & Lori, 2013, p.8). Special education refers to especially well designed instruction in physical education that is at no cost to the parents, to meet the unique needs of a child with a disability.

2.2 Attitudes Towards Students with Special Needs

All over the world, people look down upon others, most especially when one is not able to perform as he/she should, then it becomes a matter of making him or her inferior. People with special needs in our school set-ups are bedeviled with a lot of stigma when it comes to participation in physical education. While some teachers abuse students for not being in the position to perform based on their abilities, their colleagues ridicule them.

In 1990, a landmark law, the Americans with Disabilities Act (ADA) (P1.101-336) was passed.

This law seeks to end discrimination against individuals of all ages with disabilities and to remove barriers to their integration into the economic and social mainstream of American Life... The effects of this law are far reaching. For example, the ADA mandates that all facilities, including recreational and

sport facilities, must provide equal access and equal services to individuals with disabilities. (Wuest & Bucher, 1999).

The authors held the view that stigma; discrimination and barriers in societies when eliminated would pave ways for persons with disabilities to succeed when there is equity and accessibility to facilities.

Sherrill (1998), found that "Individual with disabilities, when asked, provide many examples of exclusion, rejection, and discrimination that hurt and demoralize. Physical inclusion is stressful when individuals are repeatedly ignored, hear derogatory remarks about themselves, or feel disliked or irrelevant" (p.212). The factors go on to make people with special needs feel neglected and in the end develop special hatred towards physical education.

Grames and Leverentz (2010), concluded that "it is important to understand the components of attitudes since understanding attitudes should help predict behavior toward persons with disabilities. Furthermore, the relationship between attitudes and behavior is complex, and attitudes only account for a small part of behavior" (p.1).In the view of the authors, attitudes are categorized as affective, cognitive, and behavioral.

The affective category depicts the emotional portion of an attitude, while the cognitive category represents ideas and beliefs. The behavioral category describes a person's willingness to interact with persons with disabilities

There is however other factors that hamper educating children with disabilities. Such barriers to educating children with disabilities may be physical, social or financial.

According to the Department for International Development (DFID, p.3) School factors include low school budgets resulting in a lack of appropriate facilities, inaccessible school buildings, high pupil to teacher ratios, and limited support for children with disabilities, and teachers have inadequate training in inclusive methodologies and cannot deal with the range of children with disabilities.

Milson (2006), asserted that "for all students, negative attitudes and behaviors exhibited by peers can have long lasting effects." (p.6). According to the author, all categories of students can be affected by negative attitudes which certainly lead to academic problems, absenteeism, loneliness, and loss of friends.

2.3 Modification of P. E. Lessons for Students with Special Needs

The kinds of activities available for students who are eligible for adapted physical education vary greatly. Physical Education teachers should make changes to the rules, equipment, and instructions generally. So students with special needs may receive support in the regular physical education class. On the other hand, the student with special needs may receive direct teaching from adapted Physical Education teachers in a separate class that gives them opportunities to do well with activities in a safe environment.

Physical Education for a special needs student will develop physical and motor fitness; fundamental motor skills and patterns; and skills in dance, then individual and group games and sports including intramural and lifetime sports. So the implication of IDEA's laws is basically to integrate all children within instructional and extra class programs and to individualize the instructional strategies and activity areas to support

students with special needs. Some activities will have more restrictions than others and some will be less vigorous than others depending on the needs. The physical education teacher in conjunction with other supporting staff should decide if the physical education program requires mild, moderate or limited participation. It should be remembered that adapting, modifying, and changing the activity and, or equipment to meet the needs of the student with special needs is paramount. This may imply, larger balls, bats, partner assistance, using different body parts, and providing more rest time. The goal is to ensure that the student is progressing and having some form of success.

The National Consortium for Physical Education and Recreation for Individuals with Disabilities (NCPERID, 2012) defines adapted physical education as "Adapted physical education (APE) is physical education which may be adapted or modified to address the individualized needs of children and youth who have gross motor developmental delays."(p.4). The institution is of the view that when physical education content, instructional strategies, and environment are modified they solve and as well maximize individuals' learning styles, abilities and needs. To them that is adapted physical education.

There are no laid down procedures as to how students with special needs should be in a physical education class. However, some authorities suggest that in such a situation the teacher should be innovative enough to augment some of the rules to accommodate students with special needs.

Here are some suggestions for meeting their physical exercises needs:

- 1. Shorten time periods
- **2.** Shorten distances

- 3. Change the type of signals
- **4.** Use guide wires, ground surfaces with different sounding textures, handrails and similar devices.
- **5.** Soften landing sports with mats.
- **6.** Allow two hands instead of one where accuracy or power is involved.
- 7. Change the rules so that they do not contain as many limiting conditions that lessen success.
- 8. Lower nets, baskets.
- **9.** Increase the size of striking implements and targets.
- 10. Increase or decrease the size of the projectile such as the ball, discus, or javelin.

(French and Jansma, 1982).

To Include Handicapped and Non-Handicapped Students in a combined activity, use the following tactics.

- 1. Give different roles to the special students.
 - Examples: a blind person paddles a canoe in the bow, and the person in the stern steers, a person with one leg plays first base in softball.
- 2. Assign different tasks to the special students.
 - Examples: a cardiopathic student bats but does not run the bases; a paraplegic performs on the parallel bars and horse but not the vault.
- 3. Provide equipment that facilitates the tasks or role of the special student.
 - Example: provide larger bats, smaller balls, lighter weights, ramps for bowling.
- **4.** Make the activity easier for the special student.

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Examples: increase the size of the serving area in tennis; permit returns to

doubles boundaries rather than singles boundaries.

5. Ensure the safety of the special student.

Examples: employ a partner system; use extra mats.

According to Siedentop, Mand and Taggart (1986), "one may have to adjust

environmental factors such as lighting, acoustics, water, temperature, ventilation, and

architectural features when teaching classes that include handicapped students."

One also needs to avoid certain strategies.

1. Do not spread talent unequally between or among teams because of the

special students.

2. Do not assign the disabled students continuous scoring or officiating

functions.

3. Do not continually conduct elimination activities. (p.127).

Sherrill (1998), asserted that "many, many other students have psychomotor problems

serious enough to merit adapted physical education intervention." The author was of

the view that all persons with some sort of disabilities required modified activities as

well as ecology.

To ensure maximum inclusion of students with special needs in physical education

class Samuel and Paul (2013) opined that "quality adapted physical education

involves the physical educator differentiating instruction to meet the needs, interests,

and abilities of each individual student. That differentiation might involve the teacher

adapting/ modifying the content, process, environment, and/or student assessment"

(p.3).According to the authors, physical education instructors should give optimum attention to individual students, particularly those with disabilities to satisfy their learning needs because people's attitudes have serious consequences on students with special needs learning styles as well as their self-concept.

A number of programs could be initiated in an effort to address the training needs of school personnel and to facilitate positive interactions among all students. Self-awareness is important, however, and school counselors can benefit from taking time to honestly assess their own beliefs about and attitudes toward students with disabilities prior to accepting or volunteering to work on school-based interventions (Milson, 2013, p.5).

Although literature points out that students with special needs have the fundamental right to physical education, little was known about how they are included in practical physical education lesson at the senior high school level in the Tamale north metropolis as well as the attitudes of people towards students with special needs.

A large number of very good suggestions have been made on modifying lessons for students with disabilities in particular. Some of the recommendations stress equipment, for example, larger/lighter bat, larger goal/target, lower goal/target, and vary balls (size, weight, color, texture) as well as playing environment(decrease distance), use well-defined boundaries and simplify patterns (Stopka, 2013) including time, rules, cues and actions.

The adaption of practical physical education class should be structured in a way that every student benefits.

For all practical purposes, Adapted Physical Education is developmentally appropriate physical education at its finest. It involves differentiating instruction so the physical activity is as appropriate for the person with a

disability as it is for a person without a disability. The emphasis of adapted physical education is to facilitate participation of students with disabilities with typically developing peers in age-appropriate activities (NCPERID).

In many situations, for some students with disabilities, accomplishing daily tasks such as participating in activities can be a challenge. Therefore, they should be provided with special support to improve their functional independence. It is in this view that Stopka (2013) postulated that "Assistive Technology (AT) devices are tools to help overcome those challenges and enable people living with disabilities to enhance and have access to a quality of life, that may otherwise not be known, and lead more independent lives" (p.4).

Moreover, the student's nature of disability shall determine the type or medium of instruction. The disability should be professionally-assessed so as to inform the level of educational placement provision that benefits them. Similarly, Department of Education and Skills with regards to Section 2 of the Education for Persons with Special Educational Needs (EPSEN) Act 2004 recommends that "where placement in an integrated setting is considered to be the appropriate response, provision will normally take the form of resource teaching or special needs assistant support, or both, depending on the pupil's assessed level of need." (para.3). The Act requires that the student's condition should influence the nature of the teaching needed like resource teaching or special needs assistant support, or both.

2.4: Skill Practice of Students with Special Needs in Physical Education.

The key importance of students with special needs participation in practical physical education is the extent at which they are included in skill practice during lessons. When students with disabilities are included in mainstream practical physical education class they learn effectively where the whole lesson is structured to meet all students' needs.

A word of encouragement or feedback is a simple way for physical education teachers to promote physical activity among students with special needs. Praising young students for play may sound somewhat strange to most teachers; but for a generation that experiences limited physical activity, it may be necessary. Simply inquiring about student involvement in physical activity and praising students for that involvement carry weight with students with special needs.

Another role of the physical education teacher is to encourage and motivate students, especially with disabilities, to be active. There are many ways to do this, including promoting community activities, assigning physical activity homework or home fun, showing an interest in the out-of-class physically activity in which children participate, and leading by example.

In physical education, physical activity plays an important role in the lives of students as a medium for education, as a basis for healthy living, and as a medium for social inclusion and acceptance. Nonetheless, at an individual level, students tend to participate in practical physical education class if their experiences are positive ones.

"Positive experiences are generally characterized as those that are fun and that provide a sense of achievement and opportunities to learn and apply new skills" (Consultation Document, p.7). According to the document, students' interest and desire to learn in physical education class increased when they have achieved higher successes in accomplishing given tasks.

Physical education class is just one avenue during a school day that provides the opportunity for physical activity. During the allotted class time it is recommended that children with special needs be moderately or vigorously active for at least half of the class period. Several factors can contribute to making this happen:

- 1. Effectively organize space, equipment, and students.
- 2. Provide adequate equipment that allows all children to be active at the same time (e.g., one ball per child).
- 3. Limit teacher talk or instruction time.
- 4. Plan practice opportunities that are structured for maximum participation (e.g., individual, partner, and small-group activities; no elimination activities; activities that require no wait time).
- 5. Structure the class so that learning occurs while students are being physically active.

With maximum and quality activity time, children become more skilled, knowledgeable, and physically fit. The physical education teacher has unique responsibilities in the school physical activity program to ensure that students are physically active within the physical education class. The physical education teacher

also has the responsibility to help direct and guide opportunities for physical activity within the school outside the physical education class for students with special needs.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

Even though Ghana Education Service established physical education as a compulsory core subject which should be taught in all Senior High Schools in Ghana, nevertheless it is neglected in many of those schools that run the mainstream system rendering the students with special needs as the worse off recipients of benefits that accrue from being physically active. The purpose of this study therefore, was to ascertain the inclusion of students with special needs, especially in practical physical education lessons in the Tamale Metropolis.

This section of the study was discussed under the following sub-headings.

- 1. Research Design
- 2. Population
- 3. Sample and Sampling Technique
- 4. Instrumentation
- 5. Validity and Reliability of Instrument
- **6.** Data Collection Procedure
- 7. Data Analysis

3.1 Research Design:

Descriptive research design was used. It helps provide answers to the questions who, what, when, where and how associated with a particular research problem. It was used to obtain information concerning the current status of the phenomenon and to describe "what exists" with respect to variables or conditions in situation.

It was useful in developing a more focused study on the inclusion of students with special needs in physical education. It also yielded very rich data that lead to important recommendations about the subject matter. Again, it helped in collecting extensive data using many instruments to establish in-depth understanding of the phenomenon.

3.2 Population:

Population is any set of people or events from which the sample is selected and to which the study results will be reflected or generalized. All the 22 Senior High Schools in the Tamale metropolis formed the population for the research.

For the fact that in many cases researchers cannot effectively study an entire population there is the need for a target population. Target population refers to the entire group of individuals or objects to which researchers are interested in making generalizations on the conclusions. All the four Senior High Schools in the Tamale North Metropolis in the Northern Region of Ghana constituted the target population of the study. Northern School of Business Senior High School in particular had one thousand, nine hundred and forty-two (1,942) students and two physical education teachers. Tamale Islamic Senior High School also had one thousand, four hundred and fifty (1,450) students and two physical education teachers. Then Tamale Senior High School had two thousand, seven hundred and forty-seven (2,747) students and three physical education teachers. Lastly, Kalpohin Senior High School had one thousand four hundred and three (1,403) students and two physical education teachers.

Again, another type of population that is much sizable for researchers to work with is an accessible population. The accessible population is the population in research to which the researchers can relate their conclusions. This population is a subset of the target population. It is from the accessible population that researchers take their sample populations. The accessible population of this research was two levels of classes of each of the four Senior High Schools.

3.3 Sampling and Sampling Technique

In defining a population for study, it must be specific enough to provide readers a clear understanding of the applicability of your study to their particular situation and their understanding of that same population. It therefore becomes important to select the proper method of sampling, the process by which representative individuals are randomly selected to provide insights into the entire population under study. The three methods used in this research included simple random sampling (eye-balling), stratified sampling and purposive sampling.

Eye-balling sampling technique was employed in identifying some Senior High Schools in the Tamale north metropolis that have some students with special needs. However, stratified random sampling technique was used in putting the students into three levels. Thus, level 1, level 2 and level 3 as SHS 1, SHS 2 and SHS 3 respectively. It involves dividing the population into subgroups, and random samples are chosen from these groups.

Purposive sampling denotes deliberate selection of subjects according to the researcher's consideration of their features typical of the sample population. It was used to get the two levels of classes of each of the four Senior High Schools as well as

all physical education teachers selected for the study. Therefore, the sample size was the number of students in all the eight classes and all physical education teachers in the Tamale North Metropolis.

3.4. Instrumentation

To find out about the inclusion of students with special needs, and attitudes shown towards them in practical physical education lessons at the Senior High Level, data collection was based on questionnaire, observation and interview. They aided the researcher in collecting sufficient data for analysis.

3.4.1 Questionnaire

Questionnaire is used to collect responses from persons in a geographical area of study about present practices, conditions and demographic data. The questionnaires were both closed and opened ended type. They were made up of items based on students with special needs inclusion, level of skill, modification of lessons for students with special needs and people's attitudes towards them. That is, they contained items based on inclusion of students with special needs built around the research questions, having 4 items per research question. Eight yes or no answer items, 2 true or false response items and 2 subjective items. Questionnaires were used to collect information about inclusion of students with special needs in practical physical education.

3.4.2 Observation:

Observation was also used to collect data. It does not rely on what people say they do, or what they think. It is seeing things occur in their natural settings. This gave the

researcher the chance to interact with participants in their natural setting so as to determine the data to collect. It was life observation. This observation method was useful to the researcher in a variety of ways. It provided the researcher with ways to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and checked for how much time was spent on various activities by the participants.

3.4.3 Interview

It is a way for participants to get involved and talk about their views. The interview used to collect the data was unstructured. Unstructured Interview has no definite structure. It basically involves free-style discussions with interviewees always having the purpose of the study in mind. It is flexible and provides freedom in usage. It can unearth detailed information through probing on the subject matter. This gave interviewees the chance to express their opinions on issues in detail. It also gave the interviewer the chance to demand clarifications on issues during the interview.

3.5 Validity and Reliability of Instruments

The instruments were pilot tested by the researcher. Refinement of the instruments then took place. They were then used in the same form and followed the same administration procedures as used in the validation study.

3.6 Data Collection Procedure

The data were collected in three phases. In the first phase, questionnaires were used to gather the opinion of the participants on their inclusion in practical physical education lessons. Researcher personally administered the questionnaires to the

participants after telling them the reasons for them to take the exercise seriously. This was done in two days. The participants were grouped together in a class to answer the questionnaires in order to eliminate influences from teachers and other people, in every school.

In the second phase, there was life observation, thus using checklist in the various schools during some periods for practical physical education class. It was done three times. It took place in the various schools during the periods that the classes of the selected levels had practical physical education lessons. The observation of the classes focused on those students with special needs at a reasonable distance from the class.

In the third phase, unstructured interview was used to further find out the issues that came out of the questionnaires and life observation which required emphasis. This was done one-on-one basis. A two battery Pubuze brand tape- recorder was used to record the interview session of ten minutes for each participant in the English Language. Ten students with special needs were interviewed.

3.7 Data Analysis Procedure

All the data collected through the questionnaires, the observation and the interview were analyzed based on the research questions. Item by item approach was used for the analysis. This approach requires researchers to organize the data across all participants or interviewees and their answers so as to identify similarities and differences. Then during the analysis of the findings, the links and relationships between responses were considered. The data were generated and presented in

frequencies and percentages, tables and figures, using computer soft-wares, SPSS Programme.



CHAPTER FOUR

RESULTS, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents and discusses the data collected from the field in connection with the research conducted on the inclusion of students with special needs in practical physical education lessons at the Senior High School level in the Tamale Metropolis. The data we recollected from 90 students (10 with special needs and 80 non disabled) and 10 physical education teachers. In total 100 participants were used for the research.

4.1 Analysis

The analysis was done based on themes connected with the research questions as follows:

- 1. Students with special needs in physical education.
- 2. Attitudes towards students with special needs.
- 3. Modification of physical education lessons.
- 4. Skill practice of students with special needs in physical education.

4.2: Students with Special Needs in Physical Education.

Table 1: Categories of disabilities

Condition	Yes	%	No	%
Blindness	7	7.09	39	3.0
Deafness	15	15.0	85	85.0
Learning difficulties	91	91.0	9	9.0
Speech delay/disorders	57	57.0	43	43.0
Emotional/behavioural disorders	49	49.0	51	51.0
Intellectual disability	22	22.0	78	78.0
Epilepsy	7	7.0	93	93.0
Diabetes mellitus	9	9.0	91	91.0
Hypertension	14	14.0	86	86.0
Orthopedic handicapping conditions	21	21.0	79	79.0

According to table 1, 100 participants were asked the same question about the kinds of students with special needs in their classes. The question requested them to answer yes or no. All the 100 participants responded appropriately to the question.

For blindness, 7 participants, representing 7% said there were students with the condition while 93 of the participants, representing 93% indicated that nobody had the condition. For the reason that 93% of the respondents did ascertain that no student had blindness it was the general opinion of the participants.

Concerning deafness, 15 participants, representing 15% showed that some students had deafness. But, 85 students, representing 85% stated that no student lived with the condition, deafness. With 85% higher response the participants did not ascertain the existence of the condition, deafness.

Talking about learning disabilities, 91 participants, representing 91% put it that there were students with learning disabilities, whereas 9 participants said that no student had learning disabilities. It was therefore their stand that there were students having learning disabilities since they ascertained the existence of it in some students.

With speech delay or disorders, 57 participants, representing 57% made it clear that some students had the condition. However, 43 participants, representing 43% showed that no student was having speech delay or disorders. In considering simple majority, the participants did ascertain that there were students with speech delay or disorders.

About emotional or behavioral disorders, 49 participants, constituting 49% indicated that there was no student with emotional or behavioral disorders while 51of those, representing 51% said that some students had emotional or behavioral disorders. Based on simple majority, the participants did ascertain that some students have emotional or behavioral disorders.

The participants in reacting to intellectual disability in some students saw 22 of them expressing their view that it was present in some individual students, but 78 of them, representing 78% showed that no student has mental retardation. They therefore did not ascertain existence of intellectual disability with some students.

Seven participants, representing 7% agreed that epilepsy was present with some students while 93 of them, representing 93% said that there was no student having epilepsy. Therefore, it was clear that the participants did not ascertain the existence of epilepsy.

For diabetes mellitus, 9 students, representing 9% said that some students had it. On the other hand, 91 students, representing 91% indicated that students have had no diabetes mellitus. So it was the general opinion of the participants that they did not ascertain existence of diabetes mellitus.

As shown on table 1, 14 participants, representing 14% pointed out that the condition hypertension was present in some students whereas 86 of them, representing 86% disagreed that it was present in some students. It was then the entire group position that they did not ascertain existence of hypertension.

When participants responded to orthopedic handicapping conditions, 21 (21%) of them said that some students have it. However, 79 participants, representing 79% indicated that the condition was not present in students. It was therefore their view that they had ascertained the existence of orthopedic handicapping conditions.

4.3: Attitudes towards Students with Special Needs.

Table 2: Students without Disability Work with Students with Special Needs

Response	Frequency	Percent
Yes	90	90.0
No	10	10.0
Total	100	100.0

According to table 5 the responses obtained from the participants basically talked about how people were willing to work with students with special needs in a physical education setting. The respondents were demanded by the question to say yes or no in response, and they all answered it correctly. As a result, 90 of the participants, constituting 90% answered clearly that students with special needs got other nondisabled friends in class to work with them in physical education class while 10 of them, representing 10% said that nondisabled people did not work with students with special needs. Nonetheless, it is clear that it was the group affirmation that students with special needs got their nondisabled colleagues to work with them in physical education class.

Table 3: Students with Special Needs Received Support

Response	Frequency	Percent
Yes	64	64.0
No	36	36.0
Total	100	100.0

To find out whether students with special needs got support from their colleagues nondisabled students the participants were asked a yes or no question regarding that.

All the participants answered the question as it demanded. As table 3 indicates 64 of the participants, representing 64% answered that those students received support during physical education class while 36 of them, representing 36% said that students with special needs did not get assistance in physical education class. However, it was the consensus of the group that students with special needs received support from other people around them in physical education class.

4.4: Modification of physical education lessons.

Table 4: Type of class Attended by Students with Special Needs

Class	Frequency	Percent
Practical	6	6.0
Theory	30	30.0
Practical/Theory	64	64.0
Total	100	100.0

An opinion question was posed to the participants to show the type of physical education class most suitable for students with special needs. Here, 6 (6%) of the participants said that practical physical education class was the most suitable physical education class for students with special needs, and 30 (30%) of them indicated that theory class was the most suitable for the physically challenged in physical education lesson, while 64 of them, representing 64% showed that both practical and theory class was the most suitable setting in physical education for students who are physically challenged. Therefore, the whole group asserted that the most ideal class for students with special needs is both practical and theory class.

Table 5: Type of Activities Performed by Students with Special Needs

Activity	Frequency	Percent	
Regular Activity	67	67.0	
Adapted Activity	33	33.0	
Total	100	100.0	

It was a great desire to find out about the type of activities students with special needs do in physical education class. So the participants were asked to indicate the type of activity such students do by choosing from two types of activities coded. They all answered the question. From table 4 67 of them, making 67% indicated that students with special needs participate in regular activities, and 33of the participants showed that they engaged in adapted activities in physical education class. Therefore, the participants overall view was that they engaged in regular physical activities in physical education class.

4.5: Skill Practice of Students with Special Needs in Physical Education.

Table 6: Students with Special Needs Desire Practical Physical Education

2574	Frequency	Percent
Physical Fitness	74	74.0
Socialization	3	3.0
Emotional Satisfaction	23	23.0
Total	100	100.0

A particular question was posed to the participants to find out whether or not students with special needs needed practical physical education (physical activity). They were to give their opinion on the issue in writing briefly. Again, all the participants did write their views as required appropriately. So 74 of the respondents, representing 74% confirmed that students with special needs required activity in practical physical education for purposes of keeping fit in both health and skill related fitness. Then 3 of the participants, representing 3% concluded that students who are physically challenged needed practical physical education in order to socialize. Meanwhile, 23 of the participants indicated that students with special needs should have practical physical education for fun and emotional satisfaction. The participants then

concluded that practical physical education was necessary to the physically challenged for physical fitness benefits.

Table 7: Students with Special Needs Level of Participation

	Frequency	Percent
Frequently	25	25.0
Occasionally	36	25.0
Not often	30	30.0
Never	9	9.0
Total	100	100.0

In the quest to find out about the level of participation of students with special needs the participants were asked to state one out of four pre-coded answers concerning degree of participation in practical physical education class. They did it very well according to the demands of the question. From table 2, 25 (25%) of the respondents showed that students with special needs have frequently involved themselves in practical physical education. Then 36 of them, representing 36% have the opinion that such students have occasionally participated in physical education class. And 30 participants, representing 30% were of the view that students with special needs not often got involved in practical physical education lessons, while 9 of them, representing 9% never play any role during physical education lessons. Even though students with special needs got minimum skill level of involvement, it was the respondents' agreement that those students were given opportunities to practice skills presented to students in physical education class.

Table 8: Observation of Students with Special Needs in Practical P.E Class

Name of student	Level	Activity	Participation	Skill Practice
Physically	SHS 2	Handball: Passing	``Yes	*Performance
challenged 1		and Shooting		
Physically	SHS 2	Handball: Passing	``Yes	*Performance
challenged 2		and Shooting		
Physically challenged 3	SHS 2	Handball: Attacking drills	-Yes	+Performance
Physically	SHS 2	Volleyball: Attacking	``Yes	*Performance
challenged 4		tactics		
Physically	SHS 2	Volleyball: Attacking	``Yes	*Performance
challenged 5		tactics		
Physically	SHS 2	Volleyball: Attacking	``Yes	*Performance
challenged 6		tactics		
Physically	SHS 1	Field events: Jumps	#Yes	+Performance
challenged 7	GIIG 1	(long and triple jumps	113.7	. B. C
Physically challenged 8	SHS 1	Field events: Jumps (long and triple jumps	#Yes	+Performance
Physically	SHS 1	Table Tennis: Service,	``Yes	*Performance
challenged 9		Forehand and		
		Backhand drives		
Physically				
challenged 10	SHS 1	Table Tennis: Service,	25.	
-		Forehand and	``Yes	*Performance
		Backhand drives		
		3000		

- *Performs correctly and effortless
- +Performs better and effortless
- "Yes-Participates in all 3 observations classes"
- #Yes-Participates in 2 observations classes
- -Yes-Participates in 1 observation class

In order to establish the participation and skill level of involvement of students with special needs in practical physical education class observations were carried out by the researcher. They were done three different days in the four Senior High Schools for the research study. During the observation it was noticed that all classes of the various schools did the same game or activity throughout the one month period of observation. Ten Students with Special Needs were identified from the Senior High Schools records with the help of the Guidance and Counseling Coordinators. These ten students were then observed in practical physical education lessons.

Students 1 and 2 with learning difficulties participated in a handball class. The skills instructed were passing and shooting. They were present in class during the three observations. They performed the skills correctly and efficiently. Their level of throwing and catching was quite accurate, much better than those without disability in the same class

Student 3 with epilepsy also participated in a separate handball lesson. The student was present in class during only one observation. The class was doing attacking drills, and the student was performing the activities correctly and effortlessly in anticipation for as well as reaction to passes and shooting at goal.

In another physical education class, students 4, 5, and 6 with emotional/behavioral disorders took part in volleyball lessons. They were all present in the three lessons observed. In the game of volleyball the class was learning how to attack and defend. And these students had very good ball reception, volley and spike.

Similarly, SHS 1 students 7 and 8 with speech delay/disorders also in a physical education class took active part in athletics lessons. They were however present in two of the three observations of practical physical education lessons. The lessons were conducted on field events, long jump and triple jump. They performed the skills of step, hop and jump in triple jump as well as the sail style in long jump correctly but with short distances.

Finally, students 9 and 10 with diabetes mellitus were included in physical education lessons on table tennis. They were present in the three lesson observation schedules.

They were performing both backhand drive and forehand drive correctly. They could also serve very well.

On the other hand, the time allowed for them to participate was shorter than the time for their colleagues' nondisabled students in the same class. The physical education teachers explained that they did not need full class time involvement with physical exercises because of their peculiar conditions.

Table 9: Unstructured interview transcript Unstructured interview transcript Themes Interviewer (INTER): Please have you been taking part in Students with special needs in P.E practical PE lessons? Participating student with special needs (PSSN)-1: Yes. I have been taking part since I came into this school. PSSN-2: Yes. PSSN-3: Yes, I have been taking part. PSSN-4: Yes, I love practical PE, so I have been participating. PSSN-5: Yes, I have. INTER: How many practical PE periods do you have in a week? PSSN-1: Two periods a week. Pssn-2: Two per week. PSSN-3: Only two periods. PSSN-4: We have two periods per week. PSSN-5: One double period. INTER: Please could you mention some specific activities you do in such lessons? PSSN-1: I run, jump, throw, everything from start to close of lesson. PSSN-2: I do everything required of me in such lessons, like kicking, running, throwing. PSSN-3: I do many activities including running, jumping and carrying equipment. PSSN-4: I play and practice skills introduced. PSSN-5: I do all activities from set-induction to closure of lessons. INTER: How do your colleagues receive you in practical PE lessons? PSSN-1: They make me feel at home during PE lessons PSSN-2: They receive me with warmth and we do activities together. Attitudes towards students with special needs PSSN-3: They do all exercises with me. Give me support as and when PSSN-4: They accept me in all lessons and we practice skills together. PSSN-5: My colleagues accept me and we learn together. INTER: What beliefs do they have about you in PE? PSSN-1: They think we can all do it. PSSN-2: They believe that I can make. PSSN-3: Some think that I am doing very well in it. PSSN-4: Some say PE is stressful and therefore not good for me. PSSN-5: Some are of the opinion that with my situation it helps me

emotionally.

Adaptation of activities

Skill practice of students with special

INTER: Do they interact with you in PE class?

PSSN-1: Yes, they do interact with me.

PSSN-2: They interact with me a lot.

PSSN-3: Yes, we interact more in it than other subject areas.

PSSN-4: Yes they do.

PSSN-5: Yes, everybody interacts with me.

INTER: Are the PE lessons modified or adapted to meet your peculiar

conditions?

PSSN-1: No.

PSSN-2: No. Not at all.

PSSN-3: No, they are not adapted for us.

PSSN-4: Lessons are not adapted for us.

PSSN-5: No. We do everything in the normal way.

INTER: Do you participate actively during skill practice periods?

PSSN-1: Yes I do.

PSSN-2: Yes

needs

PSSN-3: Yes, I take active part. in P.E

PSSN-4: Yes. Every skill introduced I practice it.

PSSN-5: Yes I do participate actively.

INTER: In the Handball lessons you were doing accurate passing

and shooting than others. What was your secret?

PSSN-1: My secret was that I was capable and able to do it; and

I did it.

PSSN-3: Ability lies in concentrated mind and determination. Yes,

I wanted to pose a serious challenge to my classmates.

In the transcript on table 9, students with special needs were included in practical physical education classes. Their inclusion encompassed managerial skills and skill practice, from set-induction to closure of lessons.

Again, students with special needs were valued, liked and accepted by both physical education teachers and classmates in physical education class more than in other subjects. Everybody interacted with them. This made them develop love for the subject. The positive attitudes they received enhanced their individual self-concept in physical education.

However, practical physical education lessons were not adapted for students with special needs. Modified physical education lessons address the individual students motor development needs. Despite, they managed in the general physical education class.

Students with special needs involvement in physical education is viewed at the extent to which they take part in skill practice. According to table 9, students with special needs actively took part in skill practice of physical education lessons. Success rates increased their sense of achievement and readiness to learn.

4.6: Discussions

The research findings revealed that there were students with learning difficulties as well as speech delay or disorders in some of the Senior High Schools in Tamale North Metropolis. This type of students in spite of their conditions participated in physical education just like any other student at the Senior High School level. This affirms IDEA (1990) policy statement that all children with disabilities from ages three to twenty-two require a free and appropriate education in the least restrictive environment. It also concurs that the type of education that must be provided for all students includes physical education as a direct service (Graham, Holt & Parker 2001).

Even though in societies people with special needs in our school set-ups are faced with stigma when it comes to participation in physical education where some teachers abuse students for not being in the position to perform well based on their abilities, and worse off their colleagues ridicule them was clearly not in existence as revealed in the research work. This actually puts the Americans with Disabilities Act (ADA, 1990) (P1.101-336) into perspective. It however, disproves that physical inclusion is

stressful when individuals are repeatedly ignored, hear derogatory remarks about themselves, or feel disliked or irrelevant (Sherrill, 1998) as the students with special needs got people to support and work with them in physical education setting.

In addition, the students with special needs got their non-disabled friends who supported them and moreover were ready to work closely with them supports Milson (2013) argument that the school experiences of students with disabilities can be positively or negatively influenced by the attitudes and behaviors of students and staff and by general school policies. In situations where the influences are positive there are higher success rates recorded by the students. This should be seriously sought by every physical education teacher and, or school to promote conducive learning environments for students with special needs across all levels of education where such students are present. It seems likely that the majority of teachers would be more positive if they had more knowledge about students with disabilities and effective strategies for working with those students.

Teachers are being encouraged to help students develop cooperative relationships, and research examining student attitudes toward their peers with disabilities has suggested that contact with students with disabilities might lead to positive attitudes. They are also entreated to provide recommendations for promoting social interactions between students with and without disabilities. In addition to being able to interact cooperatively with each other, students benefit from gaining an appreciation for diversity in general.

It is very clear from the findings that students with special needs did not have their physical education teachers adapt activities for them according to their individual conditions. This violates French and Jasman (1982) assertion that the teacher should be innovative enough to augment some of the rules to accommodate students with special needs. It also implies that certain class ecological factors that hamper the progress of the students with special needs were not addressed which defies the recommendation that the physical education teacher may adjust environmental factors such as architectural features when teaching classes that include handicapped students (Siedentop, Mand & Taggart, 1986) to ensure their maximum participation and subsequent benefits.

To achieve adapted activities fully in physical education teachers should support students with special needs in physical activity settings, collaborate with school staff in providing physical education to students with disabilities to increase inclusion, assist in modifying curriculum to increase access and inclusion, and provide assisted devices to increase access to quality physical education through consultations with parents.

Again, it demystifies (Samuel & Paul, 2013) recommendation that the quality of adapted physical education involves the physical educator differentiating instruction to meet the needs, interests, and abilities of each individual student. Now it is clear that physical education teachers in the study area did not embrace the policy of adaptation of physical activity so as to include every student in physical education teaching and learning processes at the Senior High School level.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter is made up of the summary of the findings of the research. It also makes a number of conclusions and proffer recommendations for all stakeholders of education in the Tamale Metropolis as well as Ghana as a whole.

5.1 Summary of Findings

The major objective of this project was to ascertain the inclusion of students with special needs in practical physical education lessons in the Senior High School level in the Tamale Metropolis. A set of questionnaire schedules was used for all the participants, students with special needs, nondisabled students and physical education teachers, and again unstructured interview used for the students with disabilities as well as observation. The data were put into categories based on the research questions. Frequencies and percentages were used to analyse the data.

The following findings then emerged from the data of the research work.

- 1. It could not be ascertained of the existence of blindness.
- 2. It was not ascertained that deafness existed
- 3. It was ascertained that learning disabilities existed.
- 4. Speech delay or disorders was ascertained.
- 5. Some students have emotional or behavioral disorders were ascertained.

- 6. Students having intellectual disability was not ascertained to have existed
- 7. Students did not ascertain the existence of epilepsy.
- 8. Student did not ascertain the existence of diabetes mellitus.
- 9. Hypertension was not ascertained to have existed.
- 10. Students did not ascertain the existence of orthopedic handicapping conditions
- 11. Students with special needs were given opportunities to practice skills presented to them in physical education class.
- 12. Students with special needs received support from other people around them in physical education class.
- 13. Students with special needs engaged in regular physical activities in physical education class instead of adapted activities.
- 14. Students with special needs got their nondisabled colleagues to work with them in physical education class.
- 15. Students with special needs attended both practical and theory physical education class.

5.2 Conclusions

The research aimed at finding outthe inclusion of students with special needs in practical physical education lessons in the Senior High School level in the Tamale Metropolis. The research therefore revealed that categories of handicapping conditions that existed among students at the Senior High School level in the Tamale metropolis included emotional or behavioral disorders, speech delay or disorders, and learning disabilities. It also came out clearly that students with special needs had moderate skill level of involvement in physical education class, got support from students without

special needs, and participated in regular physical activities in physical education class instead of adapted activities.

In conclusion, the researcher is of the view that even though students with special needs were included in physical education lessons in the Tamale Metropolitan Senior High Schools much is still desired to be done to ensure their fullest participation to reap the benefits that accrue from physical activities. Although mainstreaming and inclusion are conceptually different, both relate to the idea of integrating students with disabilities into regular education classrooms. Therefore, negative societal implications should be dealt withto ensure that these students have positive school experiences, develop skills for future academic and career success, develop social skills, and enjoy emotional health.

5.3 Recommendations

In view of the findings of the study, the following recommendations were made with the view of helping stakeholders of education to improve upon the teaching of physical education to the benefit of all students in accordance with their individual needs.

- 1. In order for all students to make maximum gains from participating in practical physical education, physical education teachers should identify students with special needs.
- 2. School administration should demand certified medical report on health status from every student admitted into senior high school.
- 3. Based on students' health bio-data physical education teachers should plan practical physical education lessons, and adapt activities to suit their individual conditions.
- 4. Physical Education Teachers should encourage and include every student in their class.

5. To provide physical education for all students, Education Directorate, Metropolitan Assembly, Traditional Authority, and Parent Teacher Associations should collaborate to supply equipment to senior high schools for the teaching of physical education.

5.4 Recommendations For Further Research

Some areas of the topic which could have been investigated were left out. This study, as it is had been limited to the Tamale metropolis in the Northern Region of Ghana. Therefore, it is suggested that further research could be done to evaluate the inclusion of students with special needs in practical physical education class and the modification of physical education lessons at that level in the entire region.

REFERENCES

- American Alliance for Health, Physical Education, Recreation and Dance. (2008).

 National Association for Sport and Physical Education.
- American Educational Research Journal. (1992). A Quarterly Publication of the American Educational Research Association. Volume 29, Number 1spring1992
- Americans with Disabilities Act. (1990). Retrieved 24/10/13.

 Website:www.eeoc.gov/eeoc/history/35th/1990s/ada.html
- Anastas, J. W. (2nded.) Research Design for Social work and the Human Services.

 Chapter 5, Flexible Methods: Descriptive Research. New York:

 Columbia University Press, 1999. Retrieved: July 19, 2013. Website: libguides.usc.edu>Libraries>LibGuides by R. Labaree-2013.
- Annabel, B, K. (2005). *Using interviews as research instruments*. Retrieved19/07/13. Website:http://www.culi.chula.ac.th/e-journal/bod/annabel.pdf
- Campbell, J., Gilmore, L. & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion.
- Center, Y., & Ward, J. (1987). Teachers' attitudes towards the integration of disabled Children into regular schools. The Exceptional Child, 34, 41-56.
- Centre for the improvement of child caring. Retrieved 24/10/13.

 Website:https://www.facebook.com/.../centre-for-the-improvement-of-child-cari...
- Charles, D., Attah, k.k, & Ayensu, E.K.(2006). *Teaching Physical Education: A Guide To Teachers*. Printed and Bound by Learners' Publishers. P.O.box KSI200, Kumasi. Tel.051-822993.

- Claudine, S. (1998). Adapted Physical Activity, Recreation and Sport:

 CrossdisiciplinaryandLifespan. WCB/McCraw-Hill.
- Cohen, L., Manion, L. & Morrison, K. (2000). *Research Methods in Education* (5thed). London: Routledge Falmer.
- Consultation Document. Physical Education, Physical Activity and Sport for Children. Retrieved August 9,2013. Website: www.getirelandactive.ie/content/wp.../PDST Get-Active-final-proof 1.pdf
- Dale, D. (2006). Population Sampling Methods for Research Studies: Definitions and Uses. Retrieved: August 9, 2013. Website:voices.yahoo.com/population-sampling- methods-research-studies-definit...
- Dattalo, B and Hammond, J. (2011). Adaptations for students with special needs in Physical Education and Sport
- Department for International Development. Guidance Note: A DFID practice paper.
- Department of Education and Skills. Section 2 of the Education for Persons with Special Educational Needs Act 2004. Retrieved August 20, 2013.

 Website: www.education.ie> Home > The Education System.
- Dettmer, P., Thurston, L.P., & Dyck, N. J. (2005). Consultation, Collaboration, and Teamwork for Students with Special Needs, 5/E. Allyn & Bacon/Longman
- Education for Persons with Special Educational Needs Act. (2004). Retrieved 24/10/13website:www.nda.ie>Home>Education>Education Publications
- Forlin, C., Douglas, G., & Hattie, J. (1996). Inclusive practices: How accepting are Teachers? *International Journal of Disability, Development and Education*, 3(2), 119-133.
- French, R. & Jansma, P. (1982). Physical Education for children with Prader-Willi

- *Syndrome*. Retrieved August 20, 2013. Website: www. The freee library .com/Physical+education+for+children+with+Prader+Willi+syndrome .-a013254215.
- Gallahue, D, L. (1992). Developmental Physical Education for Today's Children.
- George, G. (2008). Teaching Children Physical Education: Becoming a master Teacher. Retrieved: July 31, 2013. From Retrieved books.google.com.gh/bks?isbn= 07360662106.
- Gilmore, L., Campbell, J., & Cuskelly, M. (2003). Developmental expectations, personality stereotypes, and attitudes towards inclusive education: community and teacher views of Down syndrome. *International Journal of Disability, Development and Education*, 50(1), 67-78.
- Graham G., Holt, S.A. & Parker, M. (2001). Children moving. A reflective approach to teaching physical education. Mayfield publishing company Mountain View, California London. Toronto.
- Grames, M. & Leverentz, C. (2010). *Attitudes towards Persons with Disabilities- A comparison of Chinese and American Students*. Retrieved August 19,

 2013. website:www.uwlax.edu/ure/JUR-online/PDF/2010/grames &

 Leverentz.pdf
- Guernsey, K., Nicoli, M & Ninio, A. (2002). Convention on the rights of Persons
 with Disabilities: Its Implementation and Relevance for the World Bank
 Retrieved August 19, 2013. Website:www.siteresources.worldbank.org/

- .../Resources/SP.../Disabilities-DP/0712.pdf
- Heyam, L.E. (2009). Education Research and Review Vol. 4(4), pp. 164-172
- Holt-Hale, G. (5thed). *Children moving*: A reflective approach to teaching physical education. Mountain view, CA: Mayfield.
- Joan, J. C. (2009). *Research Population*. Retrieved: August 17, 2013. Website: Explorable .com.>Research>Methods
- Judith, R., Tina, H., & Lori, W. (2013). The Role and Responsibilities of the Physical Education Teacher in the School Physical Activity Program
- Kjesbo, R.R. (2013). Adapted P.E-Physical Education for Children with Special Needs.
- Kusi,H. (2012). *Doing qualitative research: a guide for researchers*. Emmong press, Accra-New Town.
- McNabb, C. (2nded.). *Descriptive Research Methodologies. PowerPoint**Presentation. New York: Columbia University Press,1999. Retrieved: July 19, 2013. Website: libguides.usc.edu>Libraries>LibGuides by R. Labaree-2013.
- Milson, A. (2013). Creating Positive School Experiences for Students with Disabilities . Professional School Counseling Journal, October 2006, 10(1), 66-72.
- National Association for Sport and Physical Education. Teaching Tools. Retrieved: 31

 July, 2013, Website: http://www.aahperd.org >... > Publications and Resources

 Teaching Tools.
- National Association for Sport and Physical Education. (2007). Appropriate

Instructional Practice Guidelines for Elementary School Physical Education.

- A Position Statement from the National Association for Sport and Physical

 Education Retrieved: 31July, 2013. Website:www.aapherd.org>...>Natioal

 Guidelines
- National Cancer Association. Classification of Laws Associated with School Students

 Volume 1 Issue 1. CLASS.CANCER.GOV. Retrieved: 31July, 2013.

 Website:http://class.cancer.gov/docs/brief-voll-issue1.pdf
- National Consortium for Physical Education and Recreation for Individuals with Disabilities. (2012). Retrieved August 22, 2013. Website:www. linkedin.com/.../National-Consortium-Physical-Education-Recreation.
- National Disability Authority. (2013). The Experiences of Students with Physical Disabilities in Second Level Schools.
- National Resource Center on ADIHD: A program of CHADD. *Individuals with Disabilities Education Act (IDEA) of 1990*. Retrieved August 20, 2013. website:www.help4adhd.org/edu/rights/idea.
- Pangrazi, R.P. (1998). *Dynamic Physical Education for Elementary School Children*.

 Needh Heights, MA: Allyn and Bacon.
- Pangrazi, R.P. & Dauer, V.P. (1995). *Dynamic Physical Education for Elementary School Children*. Macmillan publishing company.
- Pufaa, H.A. & Adeniji, A.B. (2008). *Approaches to research in physical education and Sports* E.F. Printing Hse no 55/11A, Abasraba, Opp. Winneba library, Winneba, Ghana.
- Pufaa, H.A., Agbeko, W.W, & Amui, J.C. (2009). Foundations of physical education and sport. Akwa Impression, Winneba, Ghana.

- Resic, M.C., Seidel, B.I., & Mason, J.G. (1999). *Modern administrative practices in physical education and athletics*. Addison-Wesley publishing company.
- Samuel, R. H. & Paul, J. (2010). *Physical Education Majors' Attitudes toward Teaching Students with Disabilities*.
- Sherrill, C. (1998). Adapted Physical Activity, Recreation and Sport Cross disciplinary Lifespan. WCB McGraw-Hill.
- Siedentop, D.(1991). Introduction to physical education, fitness, and sport. McGraw-Hill.
- Siedentop, D., Mand& Taggart. (1986). Teaching and Learning How to teach Sport

 Education. Retrieved August 19, 2013. Website:www.etd.auburn.edu/

 Etd/bitstream/handle/.../SINELNIKOV_OLEG_48.pdf
- Siedentop, D. & Tannehill, D.(2000). *Developing Teaching Skills in Physical Education*(4thedition). California: Mayfield.
- Smith, P.J., Mathews, K.S., Hehir, T. & Palfrey, J.S. (2001). *Pediatricians and the Education of children with disabilities*. Retrieved August 19, 2013.

 Website:www.almosthomekids.net/.../Pediatricians-and-the-Education-of-children-with...
- Stopka, C. (2013). Adaptations for specific activities. Excerpts from the PE central

book entitled: Teachers Survival Guide Book. Retrieved August 5, 2013.

Website: www.pecentral.org/adapted/adaptedactivities.html.

- The U.S. Department of Education. (2011). Creating Equal Opportunities for Children and Youth with Disabilities to Participate in Physical Education and Extracurricular Athletics. Washington, D.C
- U.S Department of Education. (2011). Creating Equal Opportunities for Children and

 Youth with Disabilities to Participate in Physical Education and

 Extracurricular Athletics.
- Vignes, C., Coley, N., Grandjean, H., Godeau, E., and Arnaud, C. (2008). Measuring

 Children's attitudes towards peers with disabilities: a review of

 instruments.
- Wuest, D.A., & Bucher, C.A. (1995). *Foundations of physical education and sport*.

 McGraw-Hill.
- Wuest, D.A., & Bucher, C.A. (1999). Promoting Physical Activity in Children and Youth. Boston, Mass: WCB/McGraw Hill; 1999: 146-193

APPENDIX A

Involvement of Students with Special Needs in Practical Physical Education Lesson Questionnaire.

1.	Check the categories representing students with special nee	eas in your cla	ass.						
	(a) Blindness	Yes	No						
	(b) Deafness	Yes	No						
	(c) Learning difficulties	Yes	No						
	(d) Speech delay or disorders	Yes 🔲	No						
	(e) Emotional/behavioural disorders	Yes	No						
	(f) Mental retardation	Yes	No						
	(g) Epilepsy	Yes	No						
	(h) Diabetes mellitus	Yes	No						
	(i) Hypertension	Yes	No						
	(j) Orthopedic handicapping conditions	Yes 🔲	No						
2.	Do they take active part in practical P. E. Lessons	Yes 🔲	No						
3.	Does the PE teacher adapt activities for them?	True	False						
4.	Does the PE teacher give them special attention? True False								
5.	. What is their level of participation in practical lessons?								
	(a) regular								
	(b) irregular								
6.	• Do students with special needs receive support from "normal" students?								
	Yes No								
7.	What kind of activities do students with special needs perfe	orm?							
	Regular Activity Adapted Activity								
8.	Would you like to work with a student with a special need?	?							
	Yes No D								
9.	What type of classes can students with special needs attended	1?							
10	Adim As assess which we make the standard make with most in the	1							
10.	According to your opinion, why do students with special n	eeus require							
	practical PE?								

APPENDIX B

Inclusion of Students with Special Needs in Practical Physical Education class observation form.

Form..... Discipline Observer..... Date........

Name Activity Skill Practice Participation



Record the appropriate action for each segment above. Indicate * (Performs correctly and effortless) or + (Performs better and effortless) for skill practice, and yes or no for participation.

