

**FACTORS THAT HINDER TO INCLUDE PHYSICALLY IMPAIRED  
STUDENTS IN PHYSICAL EDUCATION PRACTICAL CLASSES;  
THE CASE OF SOME SELECTED SECONDARY AND  
PREPARATORY SCHOOLS; MEKELLE CITY, TIGRAY  
REGIONAL STATE**

**MEd THESIS**

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**HARAMAYA UNIVERSITY, HARAMAYA**

**Factors That Hinder To Include Physically Impaired Students in  
Physical Education Practical Classes; the Case of Some Selected  
Secondary and Preparatory Schools; Mekelle City, Tigray Regional  
State**

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**MASTER OF EDUCATION IN TEACHING PHYSICAL  
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## **DEDICATION**

The dedication of this work goes to my beloved and far sighted wife and my dream, daughter, for their affection, love and gigantic contribution in the success of my life.

## **STATEMENT OF THE AUTHOR**

First and for most, I kindly state that this thesis is my work. All sources used for the fulfillment of this thesis have been acknowledged. This thesis has been submitted in partial fulfillment of the requirements for an advanced MEd degree in teaching physical education at Haramaya University and is to be kept at the University. I kindly state that this thesis is not submitted to any other institution anywhere for the award of any academic degree, diploma, or certificate without the permission of the author.

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## **BIOGRAPHICAL SKETCH**

The writer was born in Souther Tigray, Korem Town on November 28, 1984. He deals his elementary school at Adi-Keyih primary school and he attended his secondary and preparatory school at Adi-Gudom Town. Then, he joined Dilla University in 2010 and graduated with BSc degree in Sport Science on June 9, 2012. Then after, he joined Wollo University for Post Graduate diploma in Teaching (PGDT) and he has worked as a secondary and preparatory school in Afar Regional State, Koneba Woreda. He joined School of Graduate Program in Haramaya University to follow his MEd degree in Teaching Physical Education in 2015.

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## **ACRONYMS AND ABBREVIATIONS**

<b>APE</b>	Adapted Physical Education
<b>APES</b>	Adapted Physical Education and Sport
<b>GIS</b>	Geographic Information System
<b>MoE</b>	Minster of Education
<b>PE</b>	Physical Exercise
<b>PIS</b>	Physically Impaired Students
<b>PTA</b>	Parent Teacher Association
<b>SPSS</b>	Statistical Package for Social Sciences
<b>UN</b>	United Nation
<b>UNICEF</b>	United Nation International Children and Educational Found
<b>USAID</b>	United States of America International Development
<b>WHO</b>	World Health Organization

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# **Factors that Hinder to Include Physically Impaired Students in Physical Education Practical Classes; The Case of Some Selected Secondary and Preparatory Schools; Mekelle City, Tigray Regional State**

## **ABSTRACT**

*There are benefits that accrue to be children or adults who engage in physical activities (Johnson, 2009). Within this, the aim of this study sought to find out the conditions under which factors hindering to include physically impaired students in PE practical classes in the case of some selected secondary and preparatory schools in Mekelle city. The overall objective of this thesis is to identify the major hindering factors to include physically impaired students and the thesis is generally useful as a source to anyone who wishes to develop his/her thesis in this area. Descriptive research design was used in this study and data were collected from the subjects through questionnaires, interviews and observation checklists. Data were organized and analyzed through both qualitative and quantitative approach. Population of this study were selected through two sample selection methods; purposive and simple random sampling techniques. PE teachers, PTA and physically impaired students were selected purposively and non-physically impaired students were selected using simple random sampling techniques. The population who are currently learning, teaching and working in some selected secondary and preparatory schools in Mekelle city. There were 51 physically impaired students, 45 non-physically impaired students, 8 PE teachers and 13 PTAs. The typical experiences in the schools are completely denigration of physically impaired students. Results of this study show that, consideration of PE text book to physically impaired students is low; the role of PTA to include in PE practical classes is low. There is low level of awareness of stakeholders like school community, parents and educational officials and PE teachers to support and encourage physically impaired students to include in PE practical classes; facilities and equipments were also found inadequate. Finally, based on the finding and conclusion of this study, it is recommended that awareness strategy should be designed to the school communities, PE teachers, parents and PTAs. Additionally, stakeholders should also revise and redefine the PE text book and the curriculum to include physically impaired students in PE classes. PE teachers should provide potential solutions to the proper implementation of effective teaching and assessment of physically impaired students in PE practical classes.*

**Key Words:** Physically impaired, physical education, disability, practical class

# 1. INTRODUCTION

This chapter deals with background of the study, statement of the problem, scope of the study, significance of the study, and objectives of the study.

## 1.1. Back Ground of the Study

Physical education and sport are vital for the overall education of young people. They help the people to achieve mind body unit, to learn how to seek victory and accept defeat, and respect their challenger. Physical education and sport facilitate the foundation of democratic and social values through basic concepts such as no victory at any price, equal opportunities with the same rules for everyone and the will to improve oneself (Singh,D. 2005).

Physical education is part of school curriculum that instructs students in body movements, sports, games and other physical activities. Physical education courses help to build up physical fitness by allowing the people to increase their endurance, strength, and flexibility. Physical education and sports are important for all community. In addition to this it is important to physical impaired students as a means of APE. APES helps to physical impaired students in psycho motor activities, and develop their cognitive and affective domains (World book. 1994).

Skjoten (1997) defined a disability as a behavioral manifestation of individuals with substantial of gab between the actual and expected fulfillment of social roles including independent living and the role of work. The United Nation convention on the right of persons with disabilities (2005) pointed out of that in Ethiopia; there are many students who are living under the disabilities. Especially difficult circumstance of which students with disabilities are more vulnerable group (Singh, A. et al 2003).

Some people in a community have difficulties which other people do not have. For example; some people have a difficulty to see, some people have difficulty to learning, some people have a difficulty to hearing, some people have a difficulty to speaking, and some people a difficulty to moving. In addition to this some people show strange

behavior or have fit, furthermore other people had no feeling in their hands and feet's. Such difficulties are called disabilities (ibid).

Every community has some people who have disabilities. Experts say that about seven out of every hundred people have disability. Find the same people with disabilities live their lives in the same way as others in a community. But also find that because of their disabilities some people have problem living their lives in the same way of others. It is difficult for them to do all the activities that others family and community member so (ibid).

APE is a means of a specially designed program of developmental activities, games, sports, and, rhythms suited to the interests , capabilities, and limitations of students with disabilities who may not safely or success full engage in unrestricted participation in the activity of the regular physical education program.APE may be provided to any child who has a unique need in physical education.APE is to aid students with handicaps to achieve physical, mental ,emotional, and social growth commensurate with their potential though a carefully planned program of regular and special physical education and recreation activities. The APE program is designed to allow students with a wide range of disabilities and needs to meet the goal and standards of the regular physical education program.APE is vitally important to the quality of life for students with disability .Providing safe and success full experiences and meeting the unique needs of students with disabilities through physical education will enhance self-actualization, including the development of abilities in the psychomotor, cognitive and affective domains (Daniel,D.et al 1977).

APE teachers at all school levels should plan to include special programs for those who are handicapped in their curricular offerings in order to satisfy this mandate. Teachers and educational institutions must also include information on procedures to be followed for their students specializing in physical education and recreations. So that, they are prepared to teach classes and offering programs for all types of disabled persons (ibid).

## **1.2. Statement of the problem**

In fact being physically impaired students can be a great success by overcoming so many challenges which comes following their impairment. Sport science is devoted to the study of human movements, the acquisition of major skills and the promotion of fitness; it is also concerned with the total development and cognitive domains.

In Ethiopia, it is government policy to ensure that all children have the right to access equal opportunities in education. In the regular schools where physical education is timetabled and is supposed to be taught to both disabled and non-disabled children, it is not clear whether the needs of children with disabilities in physical education and sport activities, are being met (Mitku et al., 2014, cited in Seid N. 2016).

When dealing with disabling conditions in Ethiopia there is no sufficient numerical data on the prevalence of disability and the situation of children with disabilities (CWDs) in schools. According to UNICEF Ethiopia's disability program (2006) report reliable information on disability in Sub Saharan Africa is hard to find.

Inadequate infrastructure and insufficiencies in terms of equipment pose a global problem in physical education (Hardman, 2008). The issue becomes more striking as we step in to the area of inclusive education. It is observable that, in the federal democratic republic of Ethiopia, many schools lack the prescribed material resources, which is a great challenge for the implementation of good physical education. Most Primary Schools in Amhara Region fail to fulfill the equipment standards for inclusive education teaching (Asrat, 2013). However, these students not uniformly included to inclusive physical education and not benefited by doing physical activities like their class mates. Even if some researchers tried to conduct a research on inclusive education in general, but according to the researcher's view, challenges about inclusive Physical Education program has not been discovered (studied) deeply in Ethiopia. The latent problems in inclusive physical education need special attention and should be investigated further.

For anyone with a disability or mobility issue, it is vital to be as physically active as possible. Equally, it is important to find ways to overcome any barriers one face as he/she tries to become physically active. These barriers may include affordability and/or a lack of access, transportation and information. But in the observed setting, it is seen that physical impaired students lack the above health benefits since they face many problems to take part in physical education practical classes and it is a great challenge for those students to participate in physical education practical classes as equal with non-physically impaired students (WHO, 2003 cited in Seid N. 2016).

Many scholars and organizations have worked on different related topics of factors that hinder to include physically impaired students in PE classes. But, they give a little attention regarding to physical education text book and the role of PTA for determining a conducive environment to include physically impaired students in PE practical classes. Accordingly, this study seeks to fill the gap at micro level of the factors that hinder to include physically impaired students in physical education practical class in the case of some selected secondary and preparatory schools in Mekelle city. Therefore, the study tried to answer the following basic research questions:

1. What factors affect the inclusion of physically impaired students in PE classes?
2. How does the PE teacher teach physically impaired students?
3. Does the school create a conducive environment for physically impaired students to participate in PE practical classes?
4. Does the content of PE textbook motivate physically impaired students to participate actively in PE practical classes?

### **1.3. Scope of the study**

Factors that hinder to include physically impaired students in physical education practical class were the major scope of the study. Mekelle city is wider and it is difficult to cover all schools which are found in the city. As a result of these and others, the researcher focused only on some selected secondary and preparatory schools.

## **1.4. Significance of the study**

The significances of the study are the following. Firstly, it helps for investigation of factors that hinder physically impaired students for academic and practical purpose. This study also provide a base line for development policy, policy makers as well as those who want to do further study (stuff) in this area.

## **1.5. Objectives of the study**

### **1.5.1. General objective**

The main objective of this study was to identify the factors that hinder physically impaired students to include in PE practical class in the case of some selected secondary and preparatory schools in Mekelle city.

### **1.5.2. Specific objectives**

The specific objectives of the study were;

- ➔ To identify factors that faced physically impaired students in participation of PE practical classes.
- ➔ To examine what PE teachers can do to help physically impaired students in PE practical classes.
- ➔ To find out how the school contribute to creating a conducive environment for the physically impaired students to participate in PE practical classes.
- ➔ To investigate the contents of PE text book for physically impaired students practical classes

## 1.6. Operational Terms

**Disease:** Is a sickness of the body or the mind. A disease can be as ailed as sore throat or as a serious as a heart attack. Disease can strike almost any part of the body. They can also affect a person's mental and emotional health (<https://www.merriam-webster.com/dictionary/disease>).

**Impairment:** Is “any loss or abnormality of physiological, psychological or anatomical structure of function” Such as, loss of foot defective vision or mental retardation.” Impairment may be visible or invisible, temporary or permanent, progressive or regressive (<https://en.wikipedia.org/wiki/Impairmen>).

**Disability:** Has been defined as” any restriction or lack of ability to perform any activity in the manner or within the range considered normal for human being. Because of impairment the affected individual may be unable to carry out certain activities considered normal for his age, sex etc. This inability to carry out certain activities is termed “disabilities” (Linton, S, 1998).

**Handicapped:** Is defined as “a disadvantage for a given individual, resulting from an important or a disability, which limits or prevents the fulfillment of a role that is normal (depending age, sex, and social and cultural factors) for that individual (WHO, 1980).

**Social problem:** A condition that considerable numbers of people believe exists in their society and that they do not like. That is thing that vulgates or interferes with cultural values that define what is good important and desirable in society.

**Wheelchair:** Is a special chair with wheels, used by people who cannot walk because of illness, an accident etc ([Maggie Koerth-Baker, 2012](#)).

**Cane:** is the hard hollow stem of some plants, metal and hard plastics piece of cane or a thin stick, used to help walking for the people that has the lower part of his /her body is disfunctioning and uses as a supportive materials when you are walking (Taylor, C.*et al* 2011).

**Crutch:** is a mobility aid that transfers weight from the legs to the upper body. It is often used by people who cannot use their legs to support their weight, for reasons ranging from short-term injuries to lifelong disabilities (Taylor, C.*et al* 2011).

**Adapted physical education:** is dynamic service delivery system in order for empower people living with disabilities (Auxter, D. *et al*, 2010).

**Physical impaired:** Is any loss of an atomic functions of the body part of a person, but are not total restricted in all activities (Auxter, D. *et al*, 2010).

## 2. REVIEW OF RELATED LITERATURE

### 2.1. Historical Overview of Disabilities

The history of disabilities is as long as human history. It can date back to the ancient world and records from ancient literature confirm that the Spartans practiced killing the deviant or Mal formed infants. People have had different attitude towards disabilities. During per-Christian era the handicapped were persecuted and mistreated, later, during the spread of Christianity, disabled persons were pitied and protected and new accepting the handicapped and integrating them into society has been developed( Kirk,1962).

On the other hand, documents dating back to ancient Greek reported that a person with disabilities mode remarkable. Success despite their limitation, for example hemmer, author of the "olds say" and "Iliod" is reported to have been blind. The concept of individuals difference and discriminating people based on individual differences has been strengthened recently because of advancement in science, furthermore, the society has come to understand that exceptional persons are normal individuals who have deviations only in some characteristics concept of individual difference is one of the factory to be taken in considering the characteristics of exceptional individuals (Smith, R.etall1995).

According to Auxter (2010) explanations regarding disability, there is a perception by persons in the public that disability refers to persons who are in wheelchair; however, in realty the number of persons in wheelchair is small. Most disabilities are invisible from the public because they are neuromuscular, cardiovascular, chronic respiratory and/or mental disorders. The term disability is any physical or mental condition that limits a person's movements, senses or activities. It is conventionally used to refer to attributes that are severe enough to interfere with, or prevent, normal day-to-day activities. According to the UN Convention on the Rights of Persons with Disabilities, "persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others."Disabilities can be permanent, temporary, or episodic/periodic. They can affect people from birth, or be acquired later in life through injury or illness.

### **2.1.1. Definition of disability**

Disability is viewed as any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being (Bourk and Worthington, 2000; Save Children UK, 2002; WHO, 2004; Manilla, 2009, cited in Seid N. 2916). A disability may be physical, cognitive, sensory, emotional, developmental, or some combination of these (Schechter and Feldman, 2010). This means that disability refers to problems or activity limitations that result from interactions between personal and contextual factors, and no longer determined by how a person looks or acts, but can be determined only by assessment of individual performance and context (WHO, 2004).

Physical disability is not specifically defined for physical impairments since the concept of disability is the concept of inclusive education. Inclusive education is a process of increasing the participation of all students in schools, including those with disabilities (WHO, 2004). It is about restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality (Save the Children UK, 2002). This means, it is about disabled children learning effectively once they are in mainstream schools, that is, the focus is on quality of learning, not attendance (WHO, 2004). 'Impairment' is defined by the Americans with Disabilities Act (1990) as: 'any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological, musculoskeletal, special sense organs, respiratory (including speech organs), cardiovascular, reproductive, digestive, genitourinary, hemic and lymphatic, skin and endocrine.'

According to Whitehead (1993) Impairment is a problem in body function/structure and this may lead to activity limitation when encountered by an individual in executing a task or action. While participation is a problem experienced by an individual in life situation; those with physical impairment face problems of lack of balance in some activities. Thus, disability is a complex phenomenon reflecting an interaction between features of a person's body and features of the society in which he/she lives. So an individual is

disabled if he/she has impairment and these may include physically disabled based on a personal or group standard norm.

## **2.2. Physical Education (PE)**

According to studies in Physical Education (PE) the subject is considered as the cornerstone of a school-based comprehensive physical activity program. It provides the basis and opportunities for young people to gain the knowledge and skills needed to maintain physically active lifestyles throughout childhood and into adulthood. As it is mentioned by Anthony Laker (2000) from the name, physical education, one might expect the school subject to consist of education of the physical, through the physical and about the physical. Unfortunately characterization of the subject is not so easy and there are many aspects that need to be considered before a definitive statement can be made about what constitute the aims and objectives of physical education.

Underwood (1983) found that the top five aims mentioned for physical education were skill acquisition; education for leisure; health and fitness; socialization; and enjoyment. Only two of these are physical, the other three are affective, social or cognitive.

As it is suggested by Sheena Gubril cited in Helena Baert (2009) Strategies that a physical educator could incorporate include building a positive relationship between disabled and non disabled students so that, disabled ones feel more comfortable in the environment the teacher has created. Also, incorporating peers that also have a positive relationship with the student, that can help to give the disabled student the attention he/she requires while still allowing the physical educator to address the needs of the other students in the class. Still further, having a student with a disability in the classroom presents an opportunity for building student leadership skills in other students in the classroom. "One of the most positive outcomes from this type of interaction is that students without disabilities experience a shift to more positive attitudes about students with disabilities." Lieberman, James and Ludwa, (2004) A physical educator could ask a non disabled student to aid the disabled student in certain activities and allow each

student a chance at helping out and being a “buddy” (playmate) to the student with the disability.

### **2.3. Physical Activities and Health for Disabilities**

Physical activity for persons with disabilities and not be strenuous to achieve health benefits. Significant health benefits can be obtained with a moderate amount of physical activity, preferably daily. The same moderate amount of activity can be obtained in large session of moderately intense activities (such as 30-40 minutes of wheeling oneself in a wheelchair) or in shorter sessions of more strenuous activities (such as 20 minutes of wheelchair basket ball game). Additional health benefits can be gained through greater amount of physical activities. People who can maintain a regular routine of physical activity that is of longer duration or of greater intensity are likely to derive great benefits (Singh, A. et al 2003).

Previously sedentary people who being physical activity programs should start intervals of physical activity (5-10 minutes) and gradually build up to the desired level of activity. People with disabilities should first consult a physician before beginning a program of physical activity to which they are unaccustomed. The emphasis on moderate amount of physical activity makes it possible to vary activity to meet individual need, preferences and life circumstances (ibid).

According to Seaman and Depauw (1989) physical activity has been an integral part of society throughout history physical vitality has long been admired. In the days of the early Greeks, physical activity was considered primarily curative. Since that time, it has also been used in rehabilitation remediation, and illness or injury prevent.

Current emphasis is on the development of fitness wellness, and the maintenance of an active life style. This emphasis applies to both able bodied individuals and individuals with disabilities.

A well designed problem of P.E provides many benefits for individuals with disabilities, contributing to:

- ✂ The development of physical fitness and motor skills necessary for activities of daily living and participation with peers, family, and friends,
- ✂ The development of a more positive self image and feeling of self-worth, and
- ✂ The development of skills and abilities that will enable them to participate in enjoyable leisure time activities and recreational pursuits. To this end, PE and sport for individuals with disabilities has evolved.

Bucher (1999) also suggest that Physical education can contribute to the goals of education in many significant ways. Physical education makes a unique contribution to the development of the total person. It is the only area of the school curriculum that promotes the development of motor skills and fitness. No other curricular area contributes to development in the psychomotor domain.

As stated by Auxter, et al., (1993). In order for a child with a disability, even a mild disability, to be educated in the regular P.E class, careful preparation must be made. Accordingly there are four variables that must be considered before making a decision to place a child in to the regular P.E program:

- ➔ The professional preparation of the physical educators to teach a child with disability.
- ➔ The attitude of the Physical Educator toward the disable child,
- ➔ The support of the primary campus administrator of the concept of inclusion.
- ➔ The readiness of the non disabled children in the school to accept and interact with the child. These four factors all must be considered.

The first variable to be considered in the decision to include children with disability in regular P.E program is the preparation of the P.E teacher. In order to serve children with disabilities in the regular P.E class, the teacher must have knowledge of the following.

- ☞ Physical, mental, and emotional characteristics of children with disabilities.
- ☞ Learning styles of children with disabilities
- ☞ Teaching techniques and methodologies appropriate for children with and without disabilities

- ☞ Behavior management strategies appropriate for children with and without disabilities.
- ☞ Techniques for modifying play, games, and sport activities to include children with disabilities.
- ☞ Methods for modifying evaluation and grading for children with disabilities.

If the Physical Educators did not acquire this knowledge during undergraduate or graduate professional preparation, the physical educator must be provided access to this information through in-service preparation before a child with disabilities is included in the regular program

## **2.4. Development and Adapted Physical Education**

It is very difficult to generalize when discussing the developmental and adapted physical education program to be employed for students with congenital deformities. The very nature of these abnormalities is such that all areas of the body are subject to deformity, with a number of different combinations possible at each site. Certainly each student must be considered on the basis of his physical disability. Which must further reflect his incapacity for exercise and activity? In as much as many children do not receive early and adequate medical treatment of their defects, each year large number of boys and girls in the public schools presents varying safe to state that a majority of these cases have been routinely executed from participation in such classes in the past (Dr. Sonkar, S. 2005).

Students with a congenital handicap may present, the teacher with certain emotional programs that are often difficult to deal with. An unsightly appearance, coupled with parental over protection in some instances, leaves the young child with difficult adjust to make. Academically, these students often compensate very successfully by making an extra efforts to perform well in the class room. The physician however may feel that it is important for them to adjust more directly to their physical handicaps by learning to perform skill and participate with other students in those activities for which their

individual limitations present no obstacle. In fact a number of such individuals have exceeded national and even world records in certain athletic events (ibid).

Opportunities and resources in physical activity programs for these children may be limited. For example, in the early years children who are physically impaired may not have the opportunity to interact with their environment and learn basic fundamental motor skills like climbing, jumping, and skipping or basic object control skills such as bouncing, throwing, or batting. This early lack of opportunity affects later involvement in typical age-related activities such as gymnastics, soccer, and little league programs (Ferrell, 1984).

## **2.5. Planning for Special Education Needs**

Classroom teachers are the key educators of students who have special education needs. They have a responsibility to help all students learn, and they work collaboratively with special education teachers, where appropriate, to achieve this goal. They commit to assisting every student to prepare for living with the highest degree of independence possible. Education for All the Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs describes a set of beliefs, based in research that should guide all program planning for students with special education needs. Teachers planning physical education programs need to pay particular attention to these beliefs design and differentiated instruction are effective and interconnected means of meeting the learning or productivity needs of any group of students. Successful instructional practices are founded on evidence-based research tempered by experience. Classroom teachers are key educators for a student's literacy and numeracy development. Each student has his or her own unique patterns of learning (John and Jacqui, 2007).

Classroom teachers need the support of the larger community to create a learning environment that supports students with special education needs. Fairness is not sameness. In any given classroom, students may demonstrate a wide range of strengths and needs. Teachers plan programs that recognize this diversity and give students performance tasks that respect their particular abilities so that all students can derive the greatest possible benefit from the teaching and learning process. The use of flexible groupings for instruction and the provision of on-going assessment are important

elements of programs that accommodate a diversity of learning needs (Macdonald and Brooker, 1997).

No one type of adapted physical education program is suitable for all school levels or for all school districts. Good organization and administration are essential if adapted physical education programs are to be included in increasing numbers in schools and colleges. A more recent trend, and one that has a great promise for the future, is the inclusion of adapted physical education experiences in the special programs of the school. Adapted physical education teachers at all school levels should plan to include special programs for those who are handicapped in their curricular offerings in order to satisfy this mandate. Teachers, educational institutions must also include information on procedures to be followed for their students specializing in physical education and recreation. So that, they are prepared to teach classes and offer programs for all types of disabled persons (Daniel D. et al 1977).

## **2.6. Facility and Equipment**

Proper facility and equipment are as important for classes in adapted physical education as they are for classes in regular physical education. Proper facility and equipment will help the teacher of APE make the proper adjustment in the student's program to meet his special needs, whether it is a program of special exercise, of adapted sport and activities or of rest and relaxation (Daniel D. et al 1977).

The facility and equipment needs for APE programs may vary somewhat, according to the type of student served. Such factors whether the class consists of all boys or girls or is coeducational, age, and maturity levels of class members, and whether the dress for the activity all have an influence on facility and equipment needs (ibid).

### **2.6.1. Wheelchair Integrated School Physical Education**

All schools with an enrollment of 300 or more should have at least two sport wheelchairs as part of their permanent physical education equipment. These chairs should be used in regular and separate physical education settings by students with and without disabilities. In

practice and competition, one chair can be assigned to each team; who is in the relatively unimportant, since all students can benefit from exposure to wheelchair sports. The student with physical disabilities, however, has no opportunity to develop locomotor sport skills, generalizable to adulthood unless wheelchairs are provided. Wheelchair can be integrated into all physical education instruction, dance, individual sport relays, challenge courses, and adventure activities. Equal learning opportunity can be ensured only through the provision of wheelchair (Sherrill, C. 1998).

The alternative to providing wheelchair instruction is to limit the physical education curriculum to upper extremity activities done from stationary positions (archery, riflery, table tennis, horse shoes, bowling), swimming and horseback riding. No students should be forced to sit on the side line or serve as score keeper or official because an activity in which he/she cannot participate fully is being taught. If wheelchair integration is not deemed appropriate, students with orthopedic problems should be related into separate, APE (ibid).

### **2.6.2. Crutch and Cane Walking**

It is desirable that the adapted physical educator understands the intricacies of crutch and cane management. Many students on entering the adapted program will not correctly use the crutch or cane. Improper use of these aids can greatly determine the balance and maneuverability of these students. Individuals who require the use of the crutch or cane are many and varied, ranging from amputees or paraplegic to those who are temporarily incapacitated with some traumatic condition such as a sprained ankle. Whatever the reason for using the crutch or cane, it is imperative that basic principles be practiced by the users (Arnheim, D. et al 1977).

### **2.7. The Changing School Context and Its Demands**

A teacher functions within the broader framework of the school education system, its goals, curricular, materials, methods and expectations from the teacher. A teacher education curriculum framework needs to be consonance with the curriculum framework for school education, and a teacher needs to be prepared in relation to the needs and

demands arising in the school context .As such, it needs to engage with the questions of the learner, the learning process and the content and pedagogy of educating teachers. The expectations of the school systems from a teacher change from item to item, responding to the broader social, economic, and political changes taking place in the society. The issue of teacher's education accordingly has to be discussed in the much wider and changing context and demands of school education (Sprinthall, N. etal 1994).

School education has seen significant development over the decades since independence. One finds the situation on the ground still ridden with difficulties. Regional, social, and gender disparities continue to pose new challenges. These realities increase the challenge that the prospective teacher will face in implementing the right to education act (ibid).

The teacher must now be equipped not only to teach but also to understand her/his student and the community of parents so that children are regular in schools and learn. The act mandate that the teacher would be responsible for enrolling all children seeking admission ,refraining from inflicting corporal punishment, complete the given curriculum in the given time, assess students, hold parent meetings and orient them and as part of the school management committee, organize the overall running of the school( ibid).

## **2.8. The Role of the Physical Educator**

Auxter, et al., (1993) suggest whenever a child with a disability is placed in a regular educator for those children are the same as for any other child in the classroom. Because all children differ with respect to amount of learning, rate of learning, and learning style, modifications in methodology, curriculum, or environment are often necessary for both non handicapped and handicapped children. Special education which involves significant modifications in methodology, curriculum, or environment may also be delivered to some handicapped children in regular classrooms.

Regular educators have any or all of the following duties with respect to children with disabilities;

1. Identification of possible disabling conditions.

2. Referral of children for education and placement.
3. Data gathering.
4. Assisting children with disabilities with special equipment.

Further strengthening the previous issue Dunn and Hollisfait (1989) in developing a favorable climate in the classroom for the acceptance of those who are handicapped, the teacher may disuses with the students. The importance that is sometimes attached to attractive physical appearance may be pointed out and contrasted with more Meaningful personal attitudes. The teacher might emphasize that performing to the best of one's ability is just as admirable and worthy of respect as being the most outstanding performer.

Teachers can significantly improve educational outcomes of students with physically impaired by implementing specific strategies. Practical class arrangement with easy access to supplies can prevent accidents and improve participation in activities. Using a buddy system or working with paraprofessionals can provide students with necessary assistance to complete assignments. Finally, individual accommodations and encouragement can promote learning and ease frustrations over physical difficulties (Block et al., 1998).

## **2.9. Games for Hand capped Children**

According to George and Hart (1983) physically handicapped children can get as much fun and enjoyment from games as any other children and, with a little thought and imagination, a wide range of games can be adapted to suit a given group. It is important to include all the children and to give all something positive to do. A muscular dystrophy child confined to an electric wheel chair can manipulate his chair to guard a goal; he may not be able to hit the ball with his hands, but he can maneuver his chair so that a ball aimed at the goal bounces off it, He also referrer or time-keep.

When playing games with physically handicapped children, one should been in mind the following.

1. The child should be encouraged to take as active a part as is physically possible, but within the bounds of safety.
2. Rules can always be adapted to suit the children in any given group.
3. In any team game or really, children of equal ability must, as far as Possible, be put opposite one another.
4. When we have used the term to “run” we really mean to move as quickly as is possible for each individual.
5. Each member of the some team should be given a distinguishing colored bid or band, since many children especially at first, finds it difficult to identify with the right team.
6. If the children cannot manage with the suggested ball size it should be modified.
7. In certain games or relays, it has been assume that the children have a given skill. However if the children have not yet acquired the necessary skill, it is best to choose games for which they do have the skills.
8. Distance can always be raise to suit the ability of children.
9. There are a few basic safety rules which should always be taken in to account.

## **2.10. Assessing Students with Physical Disabilities**

As stated by John (1989) examiners must have a broad base of skills in order to measure adequately the functional and cognitive abilities of students who are physically disabled or health impaired. In addition to the areas traditionally evaluated in the assessment of children with mild handicaps, measures should be included in the areas of gross motor, fine motor, and daily living skills; perception; recreation and leisure skills; augmentative communication; and sensory input. Competent diagnosticians recognize their personal limitations and seek help from therapists, educators, physicians, nurses, social workers, and others to gather appropriate data, Since the assessment of a student who has physical

or health impairments is often time consuming and taxing to the examiner and the child, the team of professionals should meet before data are gathered to consider:

- (1) The nature of the data base desired.
- (2) The potential use of the data.
- (3) Specific measurement techniques or modifications of traditional Measures.
- (4) Who should present the items?
- (5) The method of data collection;
- (6) Appropriate response modes and/or equipment;
- (7) Position for testing;
- (8) Stamina and fatigue factors;
- (9) The order in which professionals will conduct the testing;
- (10) Implications of medications for test performance and for the best time of day to test.
- (11) How data will be shared when evaluations are completed.

## **2.11. Parental involvement**

Hunt and Goetz, (2004) stated that the involvement of parents of children with special educational needs is highlighted as a vital factor in inclusive schooling. Teachers believe they cannot do it alone and for effective educational processes to occur in classrooms, parental help in partnership with educators is needed, (Wilson et al, 2014). The involvement of parents in the education of their children has attracted a lot of attention over the past years and it was one of the major educational issues to enhance quality education. Parental involvement can range from providing meaningful learning experiences at home to volunteering to help with school activities.

According to Casley-Hayford (2000), Minor (2006), Pryor & Ampiah, (2003a, 2003b), the situation calls for the need to encourage parents to actively engage in the education of their children. McLoughling et al, (2003) noted that, when children see the support, between home and school, they become excited and they sense the value in learning and their intrinsic motivation for learning grows. Parental role construction has been defined by (Hoover-Dempsey & Sandler, 1995, 1997; Hoover-Dempsey et al., 2005) as the beliefs parents hold about what they are supposed to do in connection to their children's education and the patterns of parental behavior that follow those behaviors. They believe that parental involvement in their children's education is caused by three factors such as parent's motivational belief, their perception of invitation to involvement and parent's life context variables.

Shumow and Miller (2001) also found that parental involvement at school positively correlates with academic grade point average. Parents who play active roles in the schooling of their children ensure that homework and other schools tasks are accomplished. They serve as role models and a source of motivation for the children to work hard to complement the hard work and support being provided by their parents (Hafford-Letchfield and Spattcher, 2007). Similarly inviting parents, members of the business community, and service organizations to identify academic goals and standards and quantify measures of progress sends the message that what students learn and how well they learn is not an issue just for teachers and administrators but is a real priority for the community as well, (Wright and Saks, 2000, cited in Cunningham, 2004). Without the support of the family for their children's learning, it appears difficult for teachers to devise academic experiences to help students learn meaningful content. But research shows an increase in parental involvement correlates with an increase in student achievement (Ballen and Moles, 1994; Beneit, 1995; Esptein, 1991). Teachers normally exhibit positive attitudes when parents get involved, (Beyer, 1994).

Further, research findings from Henderson and Berla (1999) showed that, educators hold higher expectations for students whose parents collaborate with the teacher, in program that are designed to involve parents in full partnerships. Students whose parents are not involved are more apt to drop out of school. That is the more extensive the parent

involvement, the higher the student achievement. This finding means parental involvement in their children's education makes the children exhibit more positive attitudes and behaviors, improves their achievements and progress in school and parental expectations becomes the greatest effect on their achievements.

## **2.12. Views of the Non-Disabled Peers of Young People with Disabilities**

A study carried out by Ainscow et al. (1999) sheds some light on the views of non-disabled students about being in school with students who had disabilities. Most students were found to be positive about having students with disabilities in their classes. One student commented that they were 'normal', just like the rest of them, a view voiced by other students also. Another student said it was good that they were in mainstream education. This young person said they saw a big difference in students with disabilities when they were in a mainstream school compared to a special school - young people in a mainstream school were better able to cope and more balanced.

While accepting the right of students with disabilities to be in the school, some students were quick to point out that certain responsibilities go along with this. Here, some students were critical that some students with disabilities were treated differently to them, e.g. one student felt that it was wrong for a child with a disability to be allowed to be late for class. They felt that everyone should have equal treatment, which the authors felt reflected their acceptance that everybody had a right to be there. So, while the peers of young people with disabilities were generally welcoming of those with disabilities being in their school, the experience of being treated differently could also be deemed to be an issue for them, and not just for the young person with the disability (Ainscow et al., 1999).

## **2.13. Peer Relationships**

The views expressed by young people in the research carried out in this area clearly show that peer relationships can be complicated by a young person's disability. Young people desire to fit in with their non-disabled peers and to be involved in class and extracurricular activities without having to continually ask for help (Kenny et al., 2000).

Where young people with disabilities had to ask for help, this changed the nature of the relationship with their peers. One common theme that arose was that where peer relationships with non-disabled young people developed, they were sometimes dominated by an assumption of need and care. Therefore, the non-disabled young people did not act as equals but rather as guides or helpers (Watson et al., 1999). Young people reported that it was difficult to establish peer relationships that were not constrained by dependency considerations (Shevlin, 2000).

In contrast to young people in mainstream schools, some students in special schools were not deemed to have any issues around acceptance by their peers because they had similar experiences to those of their peers, in particular those related to their respective disabilities (Reynolds, 2006). The social adjustment of children with a physical disability was found to be poorer than that of their non-disabled counterparts; for example, they were found to have fewer friends and were judged to be less popular in class by their teachers (Browne, 1993). Given this evidence, it is not surprising that some research has shown that some young people developed friendships with anyone who was willing to be their friend (Ballard and McDonald, 1999).

The development of friendships in their local area could also be affected by the restriction of choice of school that they could attend, as can be experienced by a young person with a disability. Young people with disabilities may not be able to attend their local school, either because they need to go to a special school or because the only accessible mainstream school involves travelling. Therefore, young people could find that they have few friends in the area in which they lived (Watson et al., 1999). Also, it was felt by respondents in this study that some school staff believed that disabled children wanted to be with other disabled children.

Some young people reported that school personnel selected a single table for disabled children to sit at in the dining hall for lunch. This has obvious limitations for young people's ability to avail of opportunities to mix socially with non-disabled young people during informal break times. Despite the above negative findings in relation to young people's friendships, there were children, who were said to be well integrated with their

peer groups, had many friends and experienced positive social relationships. This was said to be more likely to happen where a young person with a disability minimized their impairment in a bid to pass as 'normal' (Watson et al., 1999).

However, this would not be an option open to many young people with a physical disability, particularly if they were in a wheelchair or if the disability was visible to others, e.g. Affecting their movement. In other studies, while there was some evidence of difficulty in being accepted by teachers and other school staff, some students with disabilities in mainstream schools spoke 'warmly' of how they felt totally accepted by their friends (Reynolds, 2006). The point has also been made that friendship is a two way relationship. Young people with disabilities both give and receive in their relationships with peers. A physical disability does not automatically affect a young person's sense of humor or sense of fun and adventure (Blunt, 2003).

#### **2.14. Physical Environment of Learning for Students with Special Needs**

The physical environment (classroom layout and appearance, classroom arrangement, furniture arrangement etc) contribute a lot to promote active-learning method. According to Dilnesaw (2009) the physical environment in a classroom can challenge active-learning. According to him there should be adequate well-maintained and furnished classrooms to effectively conduct teaching-learning process. In some research presented earlier, children often noted that not having a friend to play with and a lack of a place to play were barriers. Such research illustrates how both social (i.e. a friend) and environmental (i.e. an appropriate disability friendly place) considerations are often perceived as necessary for PA.

Many children with disabilities have reported that there are limited places to engage in PA (Martin et al., 2002). Therefore the place where the child is positioned in the class, the way the classroom materials are arranged, the effects of sound environment and the condition of a building play a vital role in enhancing or retarding the teaching-learning process of visually impaired children.

## **2.15. Practical Aspects of Inclusive Classrooms**

Just as inclusion has its benefits, it also has its disadvantages. Students with disabilities tend to disrupt the classroom with behavior issues. Because they are not as cognitively developed as their peers, the teaching-learning process is not as effective as it could be. It is difficult to serve the needs of every student who is normally in the regular education class, and with the special needs students the job becomes even more of a struggle for the teacher and someone draws the short in of the stick, usually the special needs students. Teachers have to treat special needs students differently based on standards are on their learning level. Special needs students are deprived of a suitable education when they are taught at a mismatched level with students how are significantly above their level. This can negatively affect a student's sense of self-esteem and dignity. Even in physical education classes, students with physical disabilities are disadvantaged because the curriculum is not gear to include those (Combs et al., 2010). This can cause students with disabilities to face discrimination and bullying from their peers. Causing them to experience low self-esteem, isolation, depression, and in some cases aggression (Khudorenko, 2011).

## **2.16. Specially Designed Social Skills Curriculum**

Special designed social skills curriculums have been developed for students who need systematic instruction in social skills. The curriculums use various combinations of cognitive training, behavior management, self-esteem, and empowerment technique also, the physical environment is carefully planned, and staff student ratios much individual and small group instruction and counseling (Sherrill C.1998).

The production of a curriculum guide or the written curriculum is not the final stage in the process, as many felt it is or over unless careful steps are taken to support such implementation via regular and appropriate staff development activities, change will not occur. Rather, the new program will be consigned to the proverbial circular file. Neither the production of the curriculum document, nor the implementation of it should signify the end of the curriculum development for it should signify the end of our development process. It is critical at the point of implementation to select judiciously a school or grade

that could serve as an appropriate field test site. After selecting a field testing site plan must be devised to formatively monitor and assess the implementation of the program (Dawn, 2006).

A part of physical education pedagogical responsibility is the development of a well thought out curriculum and a continuous revision of curriculum to meet students' needs. Curriculum development requires the physical education together input from a variety of sources. Consideration of facilities, equipment budget, time allotments, and scheduling constraints is important. Program promotion, physical education must assume the responsibility for actively promoting their programs. Program promotion starts with a quality program. A variety of different approaches will be effective in informing students, parents, and community members about the merits of a quality PE program (Alex, 2006).

### **3. METHODS AND MATERIALS**

In this chapter study area, study population, research design, sample size and sample size determination, data source, data collection instrument, data analysis and ethical consideration were discussed in detail.

#### **3.1. Study Area**

This research was conducted on factors that hinder to include physically impaired students in PE practical classes in some selective secondary and preparatory schools in Mekelle city, which is the capital city of Tigray National Regional State and surrounding by rural area. It is located around 780 Km north of the capital city of Ethiopia Addis Ababa, at a latitude and longitude of 13°29'N39°28'E, with an elevation of 2200 meter above sea level, and also the city far 1295Km from Haramaya University to North West. Based on the 2013 Census conducted by the Central Statistics Agency of Ethiopia (CSA, 2013), the city has a total population of 286,600.

#### **3.2. Study Population**

The target populations in this study were all physically impaired students, non-physically impaired students, physical education teachers and PTA who are currently registered as a students and working as PE teaches and as members of committee in those selected schools.

#### **3.3. Research Design**

The research study used a descriptive research design because descriptive research describes the data and characteristic about being studied. The descriptive survey was also selected for the sake of obtaining the current information what the reality is. It is also used in true finding studies and helps to the formulation of certain principles to give the solution to the problems of local and national issues. This descriptive survey method used in this study focuses on investigating the issue in practical assessment of factors that hinder to include physically impaired students' participation in practical class of PE in

the case of Mekelle city. This research design involves both quantitative and qualitative method to describe the study truly.

### **3.4. Sampling size and Sample size determination**

Firstly, though Mekelle is a large urban area, it includes many schools in the single city. Because of this and others, it is not possible to cover all schools which are found in the city. In case of this, sampling was one of the methods which allow the researcher to study relatively small unit of number representing the whole population (Saratnakos, 1998). Taking this in to account, the survey method was used to select samples for data collection purpose in this study. The study used a two stage of sampling methods, purposive and random sampling methods. The researcher selected three schools purposively (Ayder, Gereb- Tsedo and Adi-Shndihun) out of the seven secondary and preparatory schools from the city. All physically impaired students, PE teachers and PTA were selected purposively. Simple random technique was applied in the selection of non-physically impaired students from these secondary and preparatory schools out of the whole population. The total numbers of non-physically impaired students of those schools were 7248 of which, 2671 in Ayder, 2594 in Gereb-Tsedo, and 1984 in Adi-Shndihun. Then, the researcher took 15 students randomly from each selective secondary and preparatory schools.

### **3.5. Data Sources**

Both primary and secondary sources were used to secure sufficient data or information. Primary data was collected from physically impaired students, non-physically impaired students, PTA and PE teachers through questionnaires, observation and interview. Secondary data were collect from different documents, books, journals and internates.

### **3.6. Data Collection Instrument**

In order to collect data, questionnaires, interviews and observations were applied as instruments. The data collected from the three instruments were triangulated each other for reality and validity of the findings. Before data collection, pilot study was made.

### **3.6.1. Questionnaire**

Questionnaire items were developed by the researcher based on the basic research questions of the research information sought through this instrument in large fact based. Questionnaires were distributed to all physically impaired students and physical education teachers including non-physically impaired students. Besides, the questionnaire was distributed by providing clear instruction to respondents and also researcher assisted by providing clear information to respondents when they want to get clarification.

### **3.6.2. Interview**

The interview (structured and unstructured) items, were developed in a similar way in which questionnaire items were designed so as to supplement and or complement information obtained through the other means, including the other tools. In addition, these items were developed in open ended questions. This was aimed for simplicity and flexibility in which participants might feel free in some condition to discuss what they know, practice, feel, without restrictions. With this regard, the researcher strongly believe that many aspects of the issue could not be covered in the partial draft of interview items but, rather this initial items could create a stimulation situation in which participants could generate new ideas.

### **3.6.3. Observation**

In order to get the accurate and relevant information, observation was used in the study. Observation can be used to gather data from participants under natural situation. The researcher designed and developed observation checklists and used narrative and categorizing methods to record the daily activities of physically impaired students.

### **3.6.4. Pilot Test of the Questionnaires**

Before distributing the final questionnaires to the pre-specified participants, it was found necessary to distribute the final draft of questionnaire items to two PE teachers and five physically impaired students who were not part of the sample. The school selected for the pilot study was Atse Yohannes-IV preparatory school found in the city and the participants were from grade 11 and 12. The main objective of the pilot test was to

improve some important aspects of the instruments and to determine proper, ethical questions, the quality, relevance and clarity of the instruments. After the pilot study, necessary improvement was made. The reliability and corbanch = 0.87. So, it is acceptable.

### **3.7. Method of data analysis**

In this study, both qualitative and quantitative data analysis methods were used. Based on the basic research questions, statistical tools such as number and percentages were used to particularly analyze quantitative data using SPSS version 20. Percentages and mean were used to explain the personal characteristics of respondents, frequency characteristics of respondents, and frequency rate of respondents. On the other hand, the views of the respondents and documentary sources were taken as they were.

The most convenient method of organizing data was constructing a frequency distribution. After organizing the data, the data presentation must be followed. Therefore, it would be understood by those who could benefit from reading the data and research. The most presents of data would be by constructing tables of descriptive variables or statistics. Each has its own meaning, full information and purposes.

### **3.8. Ethical Consideration**

Ethical considerations play a role in all research studies and all researchers must aware of and attend to the ethical considerations related to their studies. The purpose of the study was made clearly and understandable for the participants and any communication with the concerned bodies were established in their voluntarily, agreement and interest without saddle and threatening their personality. In addition, the participants' economic background, ethnicity, sex, and race were not considered because all these have nothing to do with the idea of the research and teaching and learning physical education disregards these issues. Therefore, the researcher communicated all legally and smoothly.

## 4. RESULTS AND DISCUSSION

This section deals about the presentation and data analysis of the data collected from physically impaired students, physical education teachers, PTA and non-physically impaired students. The data's were gathered from the students, PE teachers and PTA through questionnaires, interviews and observations.

### 4.1. Demographic characteristics of Physically Impaired Students

The following table shows the general characteristics of physically impaired students; such as sex, age, grade and types of physical impairments.

Table 1. Physically impaired students background informations

No.	Items	Characteristics	Frequency	Percent	Valid Percent
1	Sex	Male	33	64.7	64.7
		Female	18	35.3	35.3
		Total	51	100	100
2	Age	14-16 years	19	37.3	37.3
		17-19 years	24	47	47
		≥ 20 years	8	15.7	15.7
		Total	51	100	100
3	Grade	9 <sup>th</sup>	14	27.5	27.5
		10 <sup>th</sup>	15	29.3	29.3
		11 <sup>th</sup>	16	31.4	31.4
		12 <sup>th</sup>	6	11.8	11.8
		Total	51	100	100
4	Types of Physical impairment	Wrist	7	13.7	13.7
		Forearm	9	17.6	17.6
		Shoulder	11	21.6	21.6
		Ankle	13	25.5	25.5
		Knee	7	13.7	13.7
		Waist	4	7.9	7.9
		Total	51	100	100

Table 1 shows out of 51 physically impaired students, 33(64.7%) were male and 18(35.3%) were female students. The table also clearly shows the respondents' age; 14-16years were 19(37.3%), 17-19years were 24(47%), and  $\geq 20$ years were 8(15.7%). The table indicates the educational background of the participants', out of them 14(27.5%) from grade 9, 15(29.3%) grade 10, 16(31.4%) grade 11 and 6(11.8%) from grade 12 .In addition to this, the table consists of the problem that the respondents face; wrist related problem 7(13.7%), forearm related impairment 9(17.6%), shoulder related impairment 11(21.6%), ankle related difficulty 13(25.5%), knee related problem 7(13.7%) and waist problem 4(7.9%). Out of the listed impairments ankle related problem contained a large amount of respondents' and Shoulder and forearm related problem contained second and third place respectively.

From this it can be expressed that the participants, most of students with physical impairment, were males and found in the age of 17-19 years. Majority of the respondents were also from grade 11<sup>th</sup>. Regarding to the types of impairments, most of the participants have ankle problem.

## 4.2. Major Factors that hinder physically impaired students to be included in PE practical classes

Table 2. Summary of physically impaired students respond about factors that hinder to include in PE practical classes

No	Questionnaire	L		M		H		V.H	
		F	P	F	P	F	P	F	P
1	The important of PE practical class to you	4	7.8	6	11.8	9	17.6	32	62.7
2	The interest to participate in PE Practical class	17	33	3	5.9	11	21.6	20	39.2
3	Hindering of school environment to your participation in PE practical class	3	5.9	8	15.7	9	17.6	31	60.8
4	The role of community towards PIS participation in PE class	34	66.7	12	23.5	4	7.8	1	2.0
5	Enough supportive materials for PIS participation in PE practical class	39	76.5	9	17.6	2	3.9	1	2.0
6	Involving parents allow in any PE practical class	40	78.4	9	17.6	-	-	2	3.9
7	Motivation of PE teacher in PE practical class	36	70.6	12	23.5	2	3.9	1	2.0
8	Coordination of PE teacher, school and PTA to include PIS in PE class	37	72.5	12	23.5	2	3.9	-	-
9	PE text book content consider your engagement	49	96.1	2	3.9	-	-	-	-
10	The support of non-physically impaired students during PE practical class	36	70.6	11	21.6	3	5.9	1	2.0
11	Physical impairment restriction from any physical activities	33	64.7	7	13.7	6	11.8	5	9.8
12	Inclusive method of teaching used by PE teacher during PE class	40	78.4	10	19.6	1	2.0	-	-
13	Your participation in intramural and extramural activities	41	80.4	6	11.8	4	7.8	-	-

Source Pilot Test, 2017

Questionnaires that are listed in the above table 2 asked about factors that hinder to include physically impaired students in PE practical classes were constructed using the feedback during the pilot test study. Accordingly, physically impaired students filled their hindering factors as clearly as shown in the above table. Then, the data analysis was presented as follows.

The factors that hinder to include physically impaired students during PE practical classes recapitulated in to 13 different categories. The rating scale also summarized to low, medium, high and very high.

Table 2 shows that 32(62.7%) of the respondents were said PE practical classes has different advantages for physically impaired students. Underwood (1983) found that the top five aims mentioned for physical education were skill acquisition; education for leisure; health and fitness; socialization; and enjoyment. Only two of these are physical, the other three are affective, social or cognitive. 20(39.2%) of the participants have very high interest to participate in PE practical classes. 17(33%) of the participants have low interest to participate in PE practical classes. So, most of the respondents have very high interest to participate in PE practical classes.

About hindering of school environment to their participation; 31(60.8%) of the respondents were rated the school environment hindering their participation during PE practical classes. The role of school community towards the participation of physically impaired students in PE class is low, which means 34(66.6%) of the respondents rated it low. The role of school community towards the participation of physically impaired students in PE practical classes must be obligatory, it is also supported by Daniel D. et al (1977) teacher and educational institutions must also include information on procedures to be followed for their students specializing in physical education and recreation. So that, they are prepared to teach classes and offer programs for all types of disabled students.

Enough supportive materials for physically impaired students in PE practical classes consist of 39(76.5%) respondents said low. Daniel D. et al (1977) stated that, proper

facility and equipment are as important for class in adapted physical education as they are for classes in regular physical education. Proper facility and equipment will help the teacher of APE make the proper adjustment in the students program to meet their special needs, whether it is a program of special exercise, of adapted sport and activities or of rest and relaxation. 40(78.4%) of the participants said the involvement of parents allow in any PE practical class is low. According to Wilson et al, (2014) the involvement of parents in the education of their children has attracted a lot of attention over the past years and it was one of the major educational issues to enhance quality education. Parental involvement can range from providing meaningful learning experiences at home to volunteering to help with school activities.

Motivation of PE teachers in PE practical classes were low, this also comprises 36(70.6%) of respondents from the total participants. According to Block et al. (1998) teachers can significantly improve educational outcomes of students with physically impaired by implementing specific strategies. Practical class arrangement with easy access to supplies can prevent accidents and improve participation in activities.

Coordination work of PE teachers, school and PTA to include physically impaired students in PE practical classes were low. In this, about 37(72.5%) of the respondents support the ideas. The absence of coordination work between these bodies were neglecting and ignoring the participation of physically impaired students in PE practical classes. 49(96.1%) of the participants said the contents of PE text book are not considering the participation of physically impaired students in PE practical classes. Accordingly, a PE teacher also does not consider those students during the practical class.

About 36(70.6%) the respondents said, the support of non-physically impaired students during PE practical classes are low. A study carried out by Ainscow et al. (1999) sheds some light on the views of non-disabled students about being in school with students who had disabilities. Most students were found to be positive about having students with disabilities in their classes. Most of the participants 33(64.7%) said that their physical impairment does not restrict from the participation of PE practical classes. But the restriction is lack of gaining opportunities to participate in PE practical class. This also

supported by Ferrell (1984) in the early years children who are physically impaired may not have the opportunity to interact with their environment and learn basic fundamental motor skills like climbing, jumping, and skipping or basic object control skills such as bouncing, throwing, or batting. 40(78.4%) of the respondents said PE teachers used low inclusive method of teaching during PE practical classes. Teachers have a responsibility to help all students learn, they work collaboratively with special education teachers and teachers planning physical education programs need to pay particular attention to these beliefs design and differentiated instruction are effective and interconnected means of meeting the learning or productivity needs of any group of students (John and Jacqui, 2007).

About 41(80.4%) of the participants said physically impaired students were not participating in intramural and extramural activities. According to George and Hart (1983), physically handicapped children can get as much fun and enjoyment from games as any other children and, with a little thought and imagination, a wide range of games can be adapted to suit a given group. The reason behind that is, it is important to include all the children and to give all something positive to do.

### **4.3 Students respond about factors hindering to include in PE practical classes**

Open ended questions were materializing for physically impaired students related with their factor hindering to include in PE practical classes. Most of the respondents said,

“There are so many hindering problems to include physically impaired students in PE practical classes. It is difficult to participate in PE practical classes, because PE teachers have lack of awareness about disability students, lack of suitable school environment and also there are cultural constraints in the society. In addition to this, the text book by itself has its own problem, because it focuses only for non-disabled students, and lastly the government and PTA also does not give attention for the participation of disability students in PE practical classes in the school compound.”

From this, it is possible to conclude that there are many factors hindering to include physically impaired students in PE practical classes as major factors lack of PE teachers

awareness towards disabled students, lack of suitable school environment, cultural constraints and so on.

#### **4.4 Students opinion about the responsible body who gives possible solutions to include physically impaired students in PE practical classes**

Almost all students agree their feeling towards the possible solution for their participation and problems.

“First of all our family gives as support by sending to PE practical classes, communicate with the school community about physically impaired students participation and how to support us. Next to this, school community, especially PTA as an organization, gives attention, create awareness for the society and makes relationship with governmental and non-governmental organizations fulfill supportive materials and creates conducive environment for physically impaired students to include in PE practical classes. In addition to this, the woreda, zonal, regional and federal educational bureaus have the responsibility to coordinate and facilitate the participation of physically impaired students and include in PE practical classes. Ministry of education has an assignment to revise PE text book, because all listed contents in PE text book do not include physically impaired students. ”

Other students forwarded their possible suggestion about including physically impaired students in PE practical classes as follows;

“Physically impaired students should have the responsibility to ask and think about their rights and we have the ability to perform any physical activity like non-physically impaired students. So, we need to be strong and make our mind ready to participate in any PE practical classes without any hesitation.”

From the above mentioned, one can conclude that physically impaired students themselves, their family, PTA are the responsible bodies. Especially, the government has responsibility to create awareness towards society and revise the text book and renewed it.

#### 4.5. Background of Non-physcally Impaired Students

Table 3. Non-physically impaired students general background information

No	Items	Characteristics	Frequency	Percent	Valid Percent
1	Sex	Male	22	48.9	48.9
		Female	23	51.1	51.1
		Total	45	100	100
2	Age	14-16	18	40	40
		17-19	14	31.1	31.1
		≥ 20	13	29.9	29.9
		Total	45	100	100
3	Grade	9 <sup>th</sup>	12	26.8	26.8
		10 <sup>th</sup>	11	24.4	24.4
		11 <sup>th</sup>	11	24.4	24.4
		12 <sup>th</sup>	11	24.4	24.4
		Total	45	100	100

According to table 3, out of 45 non-physically impaired students 22(48.9%) of the respondents were male students and 23(51.1%) of the respondents were female students. As clearly shown in the above table, 18(40%) of the participants age lies 14-16years, 17-19years were consists 14(31.1%) respondents and about 13(29.9%) of the respondents were ≥ 20years. From the total number of the participants, 12(26.8%) were grade 9 students and 11(24.4%) were selected from grade 10, 11 and 12.

Generally, table 3 indicates the majority of non-physically impaired students were female students, most of the respondents were found in the age of 14-16years and also the greatest number of the respondents was from grade 9 students.

#### 4.6. Views of non-physically impaired students on factors that hinder to include physically impaired students in PE practical classes

Table 1. Summary of non physically impaired students on physically impaired students

Questionnaires	N	Mean	Std. Deviation	Std. Error Mean	Percent
Purpose of PE to PIS	45	2.00	0.00	0.068	100
Opportunity of PIS in PE class	45	2.00	0.00	0.074	100
Do you support PIS School community	45	1.27	0.447	0.067	73.3
Special attention(PTA)	45	1.29	0.458	0.068	71.1
PE text book consideration	45	1.11	0.318	0.047	88.9

Source: Pilot Test, 2017

According to the table above, all participants agreed with the answer “Yes” for two questions. This means that, the mean value of the purpose of PE for physically impaired students and opportunity of physically impaired students in PE class are 2.00 (100%), and this indicates that all of the respondents reply that they know the purpose of PE to physically impaired students and they have an opportunity to participate in any type of physical activity. From this, we can conclude that physically impaired students have an opportunity to participate in PE classes and also PE classes provide various advantages for these students.

In table 4, non-physically impaired students do not support for any disabled students at the school and out of the school compound. The mean value, 1.27 (73.3%), of the participants shows that they do not treat for these physically impaired students. This is also one factor to include physically impaired students and it affects to perform any physical activity freely without any misgiving. The mean value of special attention given for physically impaired students was 1.29 (71.1%), and it shows that school community gives a little attention for physically impaired students. According to the consideration of PE text book for physically impaired students, they forwarded that PE text book does not

consider physically impaired students. The mean value 1.11 (88.9%) shows that PE text book does not include any disabled students in general.

Finally, we can conclude from the above table that physically impaired students have the opportunity to participate in PE classes and it provides various purposes. Additionally, non-physically impaired students do not support; school community gives low attention and PE text book also does not consider physically impaired students.

#### **4.7. Non-physically impaired students response on the factors that hinder the participation of PIS in PE classes**

Non-physically impaired students answered for open ended questions about factors that hinder to include physically impaired students in PE practical classes.

Most of the respondents answered “The problem behind the participation of physically impaired students in PE practical classes are physically impaired students themselves. They have lack of confidence to perform PE practical class because they feel inferiority and considered themselves as canaille. Other problem that faces in the participation of physically impaired students in PE practical classes are the school community specially PTA. PTA as an organization does not play its roles to include physically impaired students in PE practical classes and did not fulfills important materials for physically impaired students. In addition to this, PTA also does not create awareness on the society about the importance and advantage of PE practical class for physically impaired students. ”

Non-physically impaired students also added, “Low motivations of PE teachers to include physically impaired students in PE practical class because they neglect and provide low attention for these students in practical class, they did not support to physically impaired students like non-physically impaired students.”

#### 4.8. Non-physically impaired students forwarded their answers regarding to the responsible body to include physically impaired students in PE practical classes

Most of the participants said, “Including physically impaired students starts from parents. Parents have an obligation to support and send children to PE practical classes. School community also has the responsibility to create conducive environment and supply necessary equipments and materials. PTA also should organize the community to support these students. Additionally, government should also revise the policy and curriculum and edit PE text book. PE teachers should also motivate to physically impaired students during practical session. We, non-physically impaired students, should provide attention and support the inclusion of physically impaired students in PE practical classes.”

#### 4.9. PE Teachers Background informations

Table 5. PE teachers background information's

No	Item	Characteristics	Frequency	Percent (%)	Valid Percent
1	Sex	Male	8	100	100
		Female	-	-	-
		Total	8	100	100
2	Age	25-29 years	3	37.5	37.5
		30-34 years	3	37.5	37.5
		≥ 35 years	2	25.0	25.0
		Total	8	100	100
3	Educational qualification	Diploma	-	-	-
		Degree	8	100	100
		Master and Above	-	-	-
		Total	8	100	100

Table 5 indicates that all participants of PE teachers were male and their educational qualification also degree. 3(37.5%) of the participants age were found 25-29 years and 30-34 years respectively.

Table 6. Summary of PE teachers response on factor hindering to include physically impaired students in PE practical classes

No	Questionnaire	L		M		H		V.H	
		F	P	F	P	F	P	F	P
1	Purpose of PE program for physically impaired students	-	-	-	-	-	-	8	100
2	Your interest to teach physically impaired students in PE practical class	7	87.5	1	12.5	-	-	-	-
3	Knowledge/ experience to teach physically impaired students in practical class	5	62.5	2	25	1	12.5	-	-
4	Use of inclusive method of teaching in PE practical classes	8	100	-	-	-	-	-	-
5	Your motivation for physically impaired students participation in PE class	8	100	-	-	-	-	-	-
6	Coordination work with school community, family and PTA	8	100	-	-	-	-	-	-
7	Supportive material usage to teach physically impaired students	8	100	-	-	-	-	-	-
8	Consideration of PE text book contents to physically impaired students	8	100	-	-	-	-	-	-

Source: Pilot Test, 2017

According to table 6, 8(100%) of PE teachers forwarded that PE program provides undoubted (un-incredulity) purposes. It develops their confidence, body strength and creates good social interactions. In general, it creates mental, social and physical well being citizens. This idea is also supported by Auxter, et al., (1993) that in order for a child with a disability, even a mild disability, to be educated in the regular P.E class, careful preparation must be made. As Singh, A. et al (2003) stated, physical activity for persons with disabilities and not be strenuous to achieve health benefits. Additional health benefits can be gained through greater amount of physical activities. People who can maintain a regular routine of physical activity that is of longer duration or of greater intensity are likely to derive great benefits.

Table 6 shows that most of the PE teachers have low interest to teach physically impaired students during PE practical classes. It consists 7(87.5%). But this idea opposed by John and Jacqui, (2007) teachers planning physical education programs need to pay particular attention to these beliefs design and differentiated instruction are effective and interconnected means of meeting the learning or productivity needs of any group of students. Each student has his or her own unique patterns of learning. About 5(62.5%) PE teachers do not have experience and knowledge to teach physically impaired students in PE practical classes. PE teachers most of the time excluded physically impaired students during PE practical classes. Auxter, et al., (1993) suggests whenever a child with a disability is placed in a regular educator for those children are the same as for any other child in the classroom and special education which involves significant modifications in methodology, curriculum, or environment may also be delivered to some handicapped children in regular classrooms.

Use of inclusive method of teaching in PE practical class 8(100%) of PE teachers do not use inclusive method of teaching. This is also discriminated physically impaired students in PE class. Teachers have to treat special needs students differently based on standards are on their learning level. Special needs students are deprived of a suitable education when they are taught at a mismatched level with students how are significantly above their level (Combs et al., 2010). Regarding motivation for physically impaired students participation in PE classes were consists 8(100%) of respondents. Accordingly, All PE teachers were no having motivation to include physically impaired students in PE practical classes.

All PE teachers were forwarded low coordination work with school community, family and PTA and usage of supportive material to teach physically impaired students. PE teachers must work coordinately with the concerning body to include physically impaired students in PE practical classes. Additionally, PE teachers should also use various supportive materials during PE practical classes to create good opportunity for physically impaired students. These facilities and equipments are important to help the participation of physically impaired students. According to Daniel,D, et al., ( 1977) Proper facility and

equipment are as important for class in adapted physical education as they are for classes in regular physical education.

Consideration of PE text book contents to physically impaired students consists 8(100%) of the respondents. PE text book does not focus on the physically impaired students and all contents in the text book do not motivate for the participation of physically impaired students. “A part of physical education pedagogical responsibility is the development of a well thought out curriculum and a continuous revision of curriculum to meet students’ needs” (Alex, 2006). To fulfill the participation of physically impaired students the curriculum also needs revision and edit text books.

#### 4.9.1. Other alternative questionnaires were raised to PE teachers

Table 7. Alternative questions to PE teachers

No	Item	Yes		No	
		F	%	F	%
1	Do you take APE course?	8	100	-	-
2	Do you expect your method of assessment is comfortable for physically impaired students?	-	-	8	100
3	Do physically impaired students are included in intramural and extramural competition?	-	-	8	100
4	Do you regularly participate in professional development training concerning physically impaired students and PE practical class?	-	-	8	100

Source: Pilot Test, 2017

The above table indicates that all physical education teachers took APE course at the university level. But, they do not implement the knowledge in their school compound. APE program is important in school compound for any types of disability. This idea is supported by Dr. Sonkar S. (2005) adapted physical education program to be employed for students with congenital deformities. Regarding to method of assessment for physically impaired students in PE practical classes were not comfortable. As stated by John (1989) examiners must have a broad base of skills in order to measure adequately

the functional and cognitive abilities of students who are physically disabled or health impaired. Including in intramural and extramural activities for physically impaired students in any competitive activities all of the respondents forwarded physically impaired students were no included in such types of activities. According to George and Hart (1983) physically handicapped children can get as much fun and enjoyment from games as any other children and it is important to include all the children and to give all something positive to do. All PE teachers did not participate in professional development training concerning physically impaired students and PE practical classes. It is also one factor that influences physically impaired students in PE practical classes.

#### **4.10. Interview Questions and PE Teachers Answers**

Structured interviews was prepared for PE teachers and forwarded their responses are summarized as follows;

##### **Q1: What are the main problems when you teach physically impaired students in PE practical classes?**

All PE teachers said, “Physically impaired students are seclusion themselves from any participation during PE classes and they are also away and withdraw from the field. This is lack of interest to participate in PE practical class. Other one is, there are no supportive materials and facelifts in the school compound. Additionally, low attention by the school community specially PTA, parents and governmental body towards physically impaired students. Accordingly, these problems influences for PE teachers not to include physically impaired students in PE practical classes.”

##### **Q2: What is your method of teaching during PE practical classes?**

All of the respondents forwarded the same idea regarding the given question. “I can use always the same method of teaching during practical classes, which is excluding method of teaching. To use this method of teaching there are different reasons. First, physically impaired students themselves are not interested to participate in PE practical classes. Secondly, the school environment is not conducive and suitable for these students. And

there is not parental, school support and also concerned body. Thirdly, PE text book does not guide how to teach for these students during practical classes. So, the topic does not include physically impaired students. Finally, We, PE teachers, have no interest to teach physically impaired students in practical classes.”

**Q3: How can you assess physically impaired students in PE practical classes?**

Most of the respondents said, “Physically impaired students are assessed through theoretical parts only. When assessing physically impaired students practically, different supportive materials are needed. So, it is difficult to assess these students in practical class since there are no supporting materials.”

**Q4: Who is the responsible body to include physically impaired students in PE practical classes?**

All PE teachers forwarded, “To include physically impaired students in PE class especially in practical classes, government should take the responsibility firstly. The government should take responsibility by revising the text book and curriculum , by creating awareness towards the community about the advantage of participating in PE practical class for physically impaired students and finally by providing supportive materials and facilities for each school through collaborative work with other governmental and non-governmental bodies. The second responsible bodies are PE teachers; they have responsibility in their profession and also updating themselves from time to time. Additionally, they should motivate for physically impaired students and support them during PE practical class. Finally, PTA and parents are the responsible bodies. PTA plays its own role in the school as an organization and work together with the concerned bodies to include physically impaired students. Parents should also know that the purpose of PE is for all disabled students, not only for physically impaired students.”

**Q5: What are the possible solutions those problems?**

To this question, all of the participants respond, “To solve this problem coordinated work is the best solution. Each individual and everybody should take the responsibility. Government must create positive awareness among students, teachers and community about the advantage of physical activity for physically impaired students and PE teachers should also treat all students equally. Additionally, providing supportive materials and create conducive environment in the school.”

**4.11. Interview Questions and PTA Answers**

In this section 13 PTA respondents were participated in the interview questions. Each participant believes and perceptions forwarded towards the factors that hindering to include physically impaired students in PE practical classes. In addition to this, all participants were selected from each selected schools in this study and 8 male and 5 female PTA members were included in the study.

**Q1: Do you know and believe PE program is important for physically impaired students?**

Least of the respondents (4) were reply for this question “I did not know the important of PE program for physically impaired students. Culturally they also ignored from any activities in our society. Parents also do not accept this idea because they believe the problem comes from acrimony (cursing) of God. Generally, they believe PE program does not give any advantage for physically impaired students.”

Out of the 13 respondent large numbers of participants (9) answered “I know and believe PE program is important for physically impaired students. When they participate in any physical activity, they have good academic achievement, develop self-confidence, improve social interaction and support their country in different ways.”

From the mention above, we can conclude that most of the PTA members know and believe PE program is important for physically impaired students.

**Q2: What is the responsibility of PE teachers to include physically impaired students in PE class?**

About 11 PTA members answered, “PE teachers have the responsibility to teach for disable students in general. They should facilitate, support and orientate suitable environments in the school. They should also work coordinately with the concerning body especially with parents to include physically impaired students in PE classes.”

Few of the participants, (2), forwarded, “PE teachers not have responsibility to include in practical class for these students. Physically impaired students are not able to perform any physical activity in the school compound, because there are shortage of facility and supportive materials.”

**Q3: What does the role of PTA to engage physically impaired students in PE class?**

All PTA replied, “We, PTA members, have a great role and power in the school. But, we are not playing our roles to include physically impaired students in PE practical classes even for other disabled students in creating suitable and comfortable environment, actuating the society, supplying necessary equipments and materials. PTA, as the representatives of all community including disabled students, should work for them.”

**Q4: What do you think you should do in the future to engage physically impaired students in PE?**

From the 13 members of PTA, 11 of them responded, “For the future we can work with concerned bodies coordinately to include physically impaired students in PE class. To engage physically impaired students in PE class, we believe to fulfill equipments and materials, smoothly work with stakeholders and create awareness the purpose PE for physically impaired students.”

Other two member of PTA forwarded their idea to do for the future.

“We, PTA members, are communicating with PE teachers to include all disabled students in PE class, motivate disable students to participate in different sport activities, and put a

direction for PE teachers to prepare competition to all disabled students based on their disability type.”

#### **4.12. Discussion On Field Observations**

Based on the observation check list, what the observer observed on the field during PE practical classes in the selected schools. According to basic observation points and based on those points the observer gives an arguments as follow.

As the observer seen about the availability of suitable play ground in all the three sample school compounds are not available for physically impaired students during practical classes. So, as the observer observed insufficient suitable play ground in the schools.

On the observation shows, there are not supportive facilities and equipments to help physically impaired students in all sample schools. As the observer asked to PE teachers, “why not enough materials and equipments in your school to help for physically impaired students during PE classes?” All PE teachers said, government and other stakeholders are not supply enough materials and facilities for schools, it is also one factor hindering to include physically impaired students in PE classes.” In addition to this; the observer seen low ability of PE teachers to support physically impaired students during PE classes and they show feel disinterested to help and include these students in PE classes.

According to the participation of physically impaired students in PE classes are inactive. During practical class physically impaired students are not part of that lesson and they sit alongside and PE teachers also not able to modify different instruction to include physically impaired students in practical classes. The observation check list indicates, instructional opportunities are not adapted to diverse learners in PE practical classes.

Physical education teachers are not treated all students in equitable manner and they are treated unfairly and they do not give attention to include thes students in PE practical classes. As a result of thisphysically impaired students are not motivated to participate in any activity.

At the same time, the observer observed assessment method of PE teachers in PE classes are uncomfortable when they assess during practical test. PE teachers assessed physically impaired students using theoretical classes only and they considered it as an affirmative action. So, PE teachers are not assessed the skills and abilities of physically impaired students in a practical way.

## 5. SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter consists three parts; summary, conclusion and recommendation. The main focus of this study was to identify factors that hinder to include physically impaired students in PE practical classes in some selected secondary and preparatory schools in Mekelle city. To achieve the purpose of this study, basic research questions were raised, to reach the major hindering factors three data gathering instruments (questionnaire, interview and observation) were used. Before collecting data, pilot study has been made and then after data is collected. Then, the collected data is analyzed and presented qualitatively and quantitatively.

### 5.1. SUMMARY

As it is indicated in earlier chapters, the intent of this research work was to identify factors that hinder to include physically impaired students in PE practical classes. The participants of this study , 117 samples, were selected from some selected secondary and preparatory schools in Mekelle city by using purposive ( physically impaired students, PE teachers and PTA) and simple random sampling technique ( non-physically impaired students). The data was collected from the subject through questionnaires, interviews, and observation checklists. After collecting the data using the above tools, both qualitative and quantitative methods of data analysis were applied to reach the result. Based on the analysis made, the following findings are obtained.

1. According to background information of the respondents, out of 117 participants, 51 of them who were physically impaired students, 33(64.7%) and 18(35.3%) of respondents were male and female students respectively. Students who aged 14-16 years were 19(37.3%), 17-19 years were 24 (47%) and  $\geq 20$  years were 8(15.7%). As clearly showed in the above discussion, most of the respondents 16(31.4%) are from 9<sup>th</sup> grade and the least number 6(11.8%), from 12<sup>th</sup> grade. Regarding to physical impairment problem; ankle problem consists 13(25.5%) and waist problem contains least number i.e. 4(7.9%). 45 non-physically impaired students were selected using simple random sampling techniques from the three selected schools; 22(48.9%) and 23(51.1%) of the respondents were male and female students respectively. Participants who aged 14-16

years were 18(40%), 17-19 years were 14(34.1%) and  $\geq 20$  years were 13(29.9%). Most of the non-physically impaired students, 12(26.8%), were selected from 9<sup>th</sup> grade and 11(24.4%) respondents also were selected from 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades. Additionally, all PE teachers, 8(100%), were male and have bachelor degree in their educational qualification. 25-29 years and 30-34 years of the participants contains 3(37.5%) and  $\geq 20$  years were 2(25%) of the respondents.

2. Majority of the respondents, 32(62.7%) agreed that PE practical classes have many positive influences throughout their life. About 20(39.2%) of the respondents have an interest to participate in PE practical classes. Hindering of school environment to the participation of physically impaired students consists 31(60.8%). The roles of school communities towards the participations of physically impaired students are low which contains 34(66.6%) respondents and there is lack of supportive materials for physically impaired students during PE practical classes. Involvements of parents and motivations of PE teachers are low. There is lack of coordination between PE teachers and other stakeholders which contains 37(72.5%). Consideration of PE text book for physically impaired students and supporting from non-physically impaired students are low. Respondents replied that their physical impairment do not restrict them from engaging and participating in PE classes, exclusive method of teaching used by PE teachers and lack of participation in extramural and intramural activities. PE teachers also applied uncomfortable method of assessment during PE class.

## 5.2. CONCLUSION

The study tries to seek factors hindering to include physically impaired students in PE practical classes. The participation of students with physical impairment in PE practical classes is so uncommon; it is not only the case of physically impaired students but also faces in all disability types. PE is an integral part of the total educational activities which is beneficial for mental, physical and social aspects of an individual's including physically impaired students. Based on the major findings of the study ,the following conclusions have been made.

- ✘ As the findings shows, problem associated with school environments such as playing grounds and school compounds also affect the inclusion of physically impaired students in PE practical classes.
- ✘ Based on the findings, lack of commitment of the PTA and stakeholders to play their roles and poor support to physically impaired students affects for their participations in PE classes.
- ✘ Lack of supportive materials, facilities and equipments are also of the factors that hinder the inclusion of physically impaired students in PE practical classes.
- ✘ Involvements, motivations and supports of parents and PE teachers for physically impaired students were low in this study. Parents and PE teachers give low expectation for the participation of physically impaired students in PE classes.
- ✘ The study pointed out that there was poor coordination between PE teachers and other stakeholders; it affect for physically impaired students in PE class.
- ✘ The study concluded that PE text book does not consider physically impaired students. In this study, curriculum materials are not supportive for the participation of physically impaired students. It is the basic reason to exclude physically impaired students in PE practical classes.
- ✘ Poor support of non-physically impaired students is among those challenges and problems to include physically impaired students in PE classes.
- ✘ The study revealed that teaching methods and strategies employed by PE teachers do not allow physically impaired students to include in PE classes.

- ✘ Low commitments of PTA to support physically impaired students are also from the major hindering factors to exclude physically impaired students from PE practical classes.
- ✘ Poor preparation of intramural and extramural activities and competitions for physically impaired students in the school compound are also among the factors.
- ✘ Uncomfortable method of assessment applied by PE teachers is one factor to affect the participation of physically impaired students in PE practical classes.

### 5.3. RECOMMENDATION

On the basis of the above finding, the researcher forwarded the following recommendations which will help PE teachers, school communities, PTAs and other stakeholders to give their attention to solve the major problems and hindering factors identified above.

- ☞ Government should ensure that the philosophies and principles behind inclusive education are clearly understood by everyone who has something to do with physically impaired students in the schools, redefine and revise PE text book and its policies that are related to teaching physically impaired students in PE practical classes. Schools should also play their roles in creating and enhancing positive interaction with other concerned bodies to help physically impaired students.
- ☞ Each school should ensure that it has at least one member of qualified teachers in special needs education to teach physically impaired students and awareness strategy should be designed to the school communities, PE teachers, parents and PTAs.
- ☞ PE teachers should be able to modify inclusive method of teaching. In this, teachers should change their teaching strategies, use flexible method of assessment for physically impaired students during PE practical classes and create conducive environment and give chance for physically impaired students.
- ☞ The school and PE teachers should prepare intramural and extramural sport competitions together for physically impaired students to as they prepare for non-physically impaired students. Physically impaired students also need to have better understanding and ask for the concerned body to provide special attention for their participation.

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## **7. APPENDIX**

## **Appendix-I**

### **Questioners to be filled by physically impaired student**

The purpose of this Questioner is to collect adequate and essential data for study on the factors that hinder to include physically impaired students in Physical education practical class. So, your experience, feeling, and suggestion are worthwhile for the study. Please be frank and respond to each item as accurately as possible.

#### **Instruction:**

- No need of writing your name
- Put this mark "✓" under that you think the answer where the answer
- Give precise and clear answer for the open ended question.

#### **Part-I:** Personal information

Please provide your responses by making a tick (✓) in the relevant boxes.

Table 2 Background informations of Physically impaired students

No	Item	Characteristics		
1	Sex	Male	<input type="checkbox"/>	
		Female	<input type="checkbox"/>	
2	Age	14-16	<input type="checkbox"/>	
		17-19	<input type="checkbox"/>	
		≥ 20	<input type="checkbox"/>	
3	Grade	9 <sup>th</sup>	<input type="checkbox"/>	
		10 <sup>th</sup>	<input type="checkbox"/>	
		11 <sup>th</sup>	<input type="checkbox"/>	
		12 <sup>th</sup>	<input type="checkbox"/>	
4	Types of physical impairment	Upper Limbs ( Hands)	Wrist	<input type="checkbox"/>
			Forearm	<input type="checkbox"/>
			Shoulder	<input type="checkbox"/>
		Lower Limbs (Legs)	Ankle	<input type="checkbox"/>
			Knee	<input type="checkbox"/>
			Waist	<input type="checkbox"/>

Source: Pilot test, 2017

**Part-II** Questions to be filled by physically impaired students

There are some statements which identify factors that hinder to include physically impaired students in PE practical classes: The case of some selected secondary and preparatory schools in Mekelle city. The following four alternatives are represented by scales from 1 up to 4.

Read each item carefully and put this mark "✓" under the alternatives that best express you are feeling about the statements.

1. Low (L) = 1

3. High (H) = 3

2. Moderate (M) = 2

4. Very High (VH) = 4

Table 3. Factors hindering to include physically impaired students in PE practical classes

No	Questionnaire	L	M	H	V.H
1	The important of PE practical class to you				
2	The interest to participate in PE practical class				
3	Hindering of school environment to your participation in PE practical class				
4	The role of school community towards physically impaired students participation in PE class				
5	Enough supportive materials for physically impaired students participation in PE practical class				
6	Involving parents allow in any PE practical class				
7	Motivation of PE teacher in PE practical class				
8	Coordination of PE teacher, school, and PTA to include physically impaired students in PE class				
9	PE text book content consider your engagement				
10	How the support of non-physically impaired students during PE practical class				
11	Physical impairment restriction from any physical activities				
12	Inclusive method of teaching using by PE teacher during PE class				
13	Your participation in intramural and extramural activities				

Source: Pilot Test, 2017

13. If any other problems that hinder to include physically impaired students participation in PE practical class list them

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14. In your opinion, who is responsible boy for the participation of physically impaired student in PE practical class?

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**THANK YOU FOR YOUR COOPERATION!!**

## Appendix –II

### Questionnaires for non-physically impaired students

The purpose of this Questioner is to collect adequate and essential data for study on the factor that hinder to include physically impaired students in PE practical class. So, your experiences, feelings, and suggestions are worthwhile for the study. Please be frank and respond to each item as accurately as possible.

#### Instructions:

- No need of writing your name
- Put this mark "✓" under that you think the answer where the answer
- Give precise and clear answer for the open end questions

#### Part-I Personal information

Table 4. Backgroun informations of non-physically impaired students

No	Items	Character
1	Sex	M <input type="checkbox"/>
		F <input type="checkbox"/>
2	Age	14-16 <input type="checkbox"/>
		17-19 <input type="checkbox"/>
		≥20 <input type="checkbox"/>
3	Grade	9 <sup>th</sup> <input type="checkbox"/>
		10 <sup>th</sup> <input type="checkbox"/>
		11 <sup>th</sup> <input type="checkbox"/>
		12 <sup>th</sup> <input type="checkbox"/>

**Part-II** Question to be filled by non-physically impaired students

There are some statements identify factors that hinder to include physically impaired students in PE practical classes: the case of some selected secondary and preparatory schools in Mekelle city. Read each item carefully and put this mark "✓" under the alternatives that best express you are feeling about the statements.

Table 51. Factors that hinder to include physically impaired students in PE practical classes

No	Questionnaire	Yes	No
1	Do you know the purpose of PE for physically impaired students?		
2	Do you think that physically impaired students have opportunity to participate in PE class?		
3	Do you support physically impaired students to include in PE class?		
4	Does the school community give special attention for physically impaired students?		
5	Does the PE text book is consider for physically impaired students?		

Source: Pilot Test, 2017

6. What are major challenges that hinder the participation of physically impaired students in PE class?

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7. Who are the responsible body to include physically impaired students in PE practical class?

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THANK YOU FOR YOUR COOPERATION!!

## Appendix- III

### Questionnaires to be filled by physical Education Teachers

Dear physical education teachers, the purpose of these questioners is to know and investigate the factors that hinder to include physically impaired students in Physical education practical classes. So, kindly respond as requested here with high appreciation to fill and answer honestly.

#### Instructions

- No need of writing your name
- Put this mark "✓" under that you think the answer where the answer
- Give precise and clear answer for the open end questions

#### Part-I Personal information

Table 62. Background informations of PE teachers

No	Item	Character
1	Sex	Male <input type="checkbox"/>
		Female <input type="checkbox"/>
2	Age	25-29 <input type="checkbox"/>
		30-34 <input type="checkbox"/>
		≥35 <input type="checkbox"/>
3	Educational qualification	Diploma <input type="checkbox"/>
		Degree <input type="checkbox"/>
		Masters and above <input type="checkbox"/>

**Part-II** Question to be filled by physical education teachers

There are some statements identify factors that hinder to include physically impaired students in PE practical classes: the case of some selected secondary and preparatory schools in Mekelle city. The following four alternatives are represented by scales from 1 up to 4.

Read each item carefully and put this mark "✓" under the alternatives that best express you are feeling about the statements.

1. Low (L) = 1                      3. High (H) = 3  
 2. Moderate (M) = 2              4. Very High (VH) = 4

Table 73. Knowledge and experiences of PE teachers

No	Questionnaire	L	M	H	V.H
1	Purpose of PE program for physically impaired students				
2	Your interest to teach physically impaired students in PE practical class				
3	Knowledge /experience to teach physically impaired students in PE practical class				
4	Use of inclusive method of teaching in PE practical classes				
5	Your motivation to teach physically impaired students participation in PE class				
6	Coordination work with school community, family, and PTA				

7	Supportive material usage to teach physically impaired students				
8	Consideration of PE text book content to physical impaired students				

Source: Pilot Test, 2017

9. Do you take the course of APE?

A. Yes

B. No

10. Does your method of assessment is comfortable for physically impaired students?

A. Yes

B. No

11. If your answer for Q-10 is “Yes” how do you measure the value of your assessment method?

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12. Does physically impaired students are including in intramural and extramural competition?

A. Yes

B. No

13. If your answer for Q-12 “No” what is the reason behind that?

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14. Do you regularly participate in professional development trainings concerning students with physically impaired and physical education practical classes?

A. Yes

B. No

15. Who is the responsible body to include physically impaired students in PE practical class?

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THANK YOU FOR YOUR COOPERATION!!

## **Appendix-IV**

### **The interview to be answered by a physical education teachers**

Dear respondent, the main objectives of this interview is to identify the factors that hinder to include physically impaired students in Physical education practical class.

#### **Instruction**

First of all I would like to say thank you for your politely cooperation in answering this interview.

Dear respondent, as much as possible give clear and accurate answer to make the work is more precise.

Sex: \_\_\_\_\_

Age: \_\_\_\_\_

1. What are the main problems when you teach physically impaired students in PE practical class?
2. What is your method of teaching during PE practical class?
3. How can you assess your physically impaired students in PE practical class?
4. Who is the responsible body to include physically impaired students in PE classes?
5. What are the possible solutions for those problems

**THANK YOU FOR YOUR COOPERATION!!**

## **Appendix-V**

### **The interview to be answered by PTA**

Dear respondent, the main objectives of this interview is to identify the factor that hindering to include physically impaired students in PE practical class.

#### **Instruction**

First of all I would like to say thank you for your politely cooperation in answering this interview.

Please a respondent, as much as possible give your answers clearly and accurately to make work more precise.

Sex: \_\_\_\_\_

Age: \_\_\_\_\_

Educational qualification: \_\_\_\_\_

1. Do you know and believe PE program is important for physically impaired students?
2. What is the responsibility of PE teacher to include physically impaired student in PE class?
3. What does the role of PTA to engage the physically impaired students in PE class?
4. What do you think you should do in the future to engage your physically impaired students in PE class?

**THANK YOU FOR YOUR COOPERATION!!**

## Appendix-VI

### Observation Check list Format during P.E. Practical Class.

School \_\_\_\_\_ Date \_\_\_\_\_

Grade \_\_\_\_\_ Unit of instruction \_\_\_\_\_

No of Students:- M: \_\_\_\_\_

F: \_\_\_\_\_

#### Key Guide

4= Excellent

2= Need attention

3= Good

1= Not present

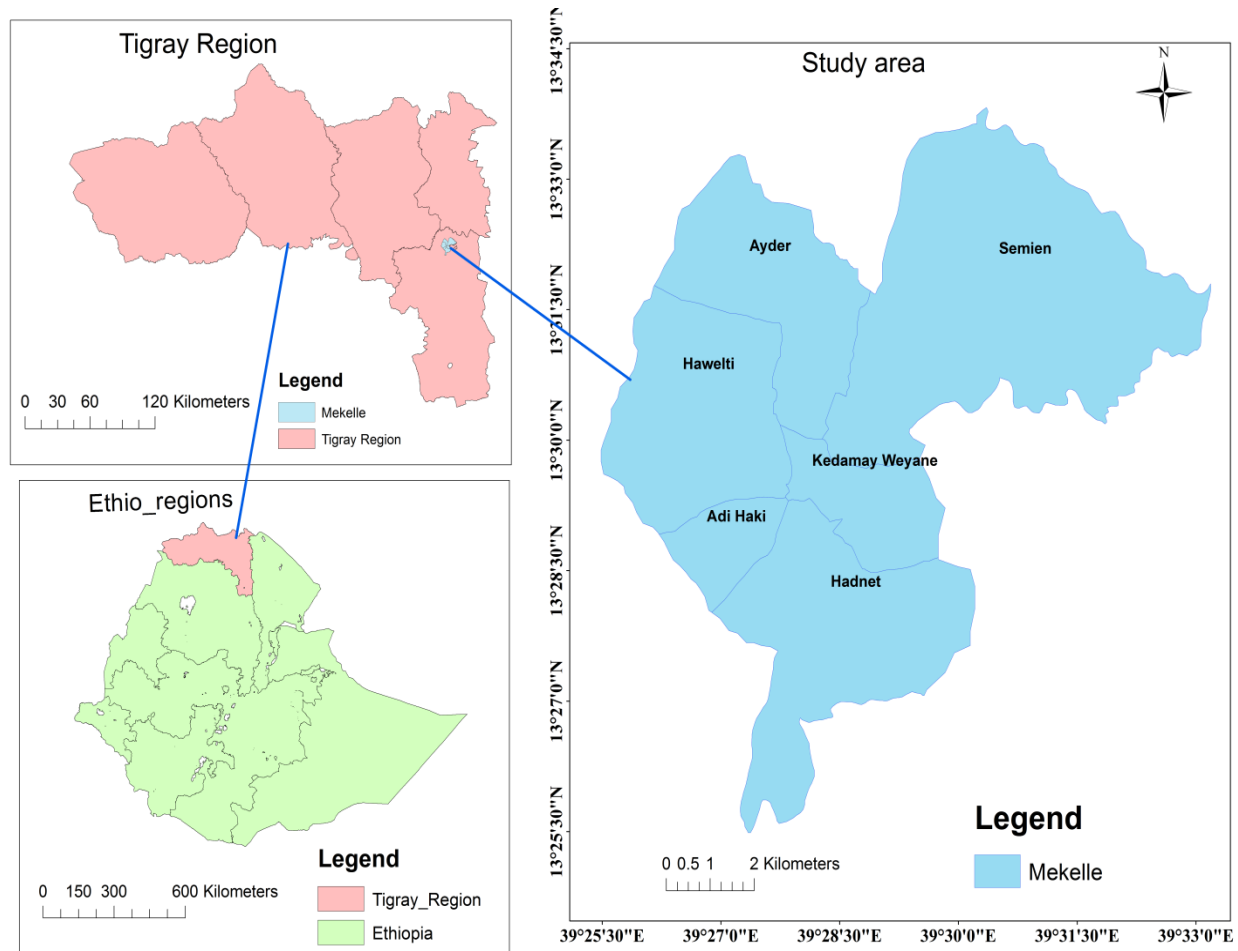
Table 84. Observation check list

Activities during observation	4	3	2	1
1. Availability of suitable play grounds in school.				
2. Facilities and equipments and its appropriateness.				
3. Environment safety for physically impaired students.				
4. Teachers ability to help students with physically impaired.				
5. Physically impaired student's participation during PE practical class.				
6. Teachers ability to modify instructions for physical impaired students				
7. Instructional opportunities are adapted to diverse learners.				
8. All students are treated in a fair and equitable manner.				
9. Physical impaired students are motivated for each activity				
10. Assessment methodology of teachers in PE practical test is comfortable				

Source: Elias Fekade, 2012

## Appendix-VII

**Figure 11: Map of the Study Site**



Source: Arc GIS 10 (2017)