

**ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES
DEPARTMENT OF SPECIAL NEEDS EDUCATION**

**CHALLENGES AND OPPORTUNITIES OF STUDENTS WITH PHYSICAL
IMPAIRMENT IN HEALTH AND PHYSICAL EDUCATION LESSON:
THE CASE OF MENELIK AND DIELL BETIGILL
PRIMARY SCHOOLS**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF
ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE MASTER OF ARTS DEGREE IN SPECIAL
NEEDS EDUCATION**

BY

HERMELA MASRESHA

ADVISOR: Dr. Sewalem Tsega

Nov 2018

**ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES
DEPARTMENT OF SPECIAL NEEDS EDUCATION**

**CHALLENGES AND OPPORTUNITIES OF STUDENTS WITH PHYSICAL
IMPAIRMENT IN HEALTH AND PHYSICAL EDUCATION LESSON:
THE CASE OF MENELIK AND DIELL BETIGILL
PRIMARY SCHOOLS**

HERMELA MASRESHA

Approval of the Board of Examiners

1. Advisor

Name: Dr. Sewalem Tsega Signature _____ Date _____

2. Internal Examiner

Name Dr. Alemayehu T. Mariam Signature _____ Date _____

3. External Examiner

Name Dr. Mulat Asnake Signature _____ Date _____

TABLE OF CONTENT

Contents

Acknowledgement-----	I
Abstract -----	II
Acronyms -----	III
Declaration of Originality-----	IV

1. INTRODUCTION

1.1 Background of the Study-----	1
1.2 Statement of the problem-----	5
1.3 Significance of the Study-----	6
1.4 Objective of the Study-----	6
1.4.1 General Objective-----	6
1.4.2 Specific Objective-----	6
1.5 Limitation of the study-----	7
1.6 Research Questions -----	7
1.7 Scope of the Study-----	8
1.8 Organization of the Study -----	8
1.9 Definition of Terms-----	8

2. REVIEW OF RELATED LITERATURE

2.1 A brief history of physical education-----	10
2.2 Barriers -----	14
2.2.1 Institutional barriers-----	14
2.2.2 Teacher-related barriers-----	15
2.2.3 Environmental barriers-----	15
2.2.4 Student related barriers-----	16
2.2.4.1 Dislike the activity-----	16
2.2.4.2 Lack of intrinsic and extrinsic motivation-----	17

2.2.5 Social-level barriers-----	17
2.2.6 Physical barriers of school compound-----	18
2.2.7 Attitudinal barriers-----	18
2.3 Opportunities of health and physical education -----	19
2.3.1 Physical improvements-----	19
2.3.2 Mental improvements in confidence and well-being-----	20
2.3.3 Behavioral improvements in attention, relationships, and academics-----	20
2.4 Methods of Modifying Sports and Activities-----	21
2.4.1 Create Smaller Groups-----	21
2.4.2 Adapt Existing Activities-----	22
2.4.3 Right Equipment-----	22
2.4.4 All-In Participation Activities-----	22
2.5 How to teach students with physical impairment physical education -----	23
2.5.1 Sensory Integration-----	23
2.5.2 Behavior-----	24
2.5.3 Class Size-----	24
2.5.4 Team Building-----	24
2.5.5 Professional Development-----	24
2.5.6 Accessibility-----	25
2.5.7 Alternatives-----	25
2.6 Types of Physical Disabilities-----	25
2.7 Causes of Physical Disabilities-----	27
2.8 Assessing Students with Physical Disabilities -----	29

3. METHODOLOGY

3.1. Research site and Sampling method-----	30
3.1.1 Research Site-----	30
3.1.2. Participants -----	30
3.1.3 Population and Sampling technique -----	30
3.1.4. Instruments-----	31
3.1.4.1 Observation -----	31

3.1.4.2 Interview-----	32
3.1.4.3 Group discussion-----	32
3.1.5 Teachers -----	33
3.1.6 Students with physical impairment-----	33
3.2 Data Collection Procedures-----	33
3.3 Methods of Data Analysis-----	33
3.4 Ethical consideration-----	34

4. FINDINGS

4.1 Assessment of students with physical impairment-----	35
4.2 Involvement of the Students-----	38
4.3 Problems that hinder students-----	41
4.4 Teaching method of health and physical education-----	42
4.5 Opportunities that student can get -----	44
4.6 Observation of the researcher -----	45
4.7 Observation comparing between the schools -----	46
4.8 Focus Group Discussion-----	47
4.9 Discussions-----	49

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary -----	57
5.2. Conclusions -----	57
5.3 Recommendations -----	58

REFERENCE

Appendices

APPENDIX A, Observational activities in Menelik primary school

APPENDIX B, Observation activities in Diell Betigle primary school

APPENDIX C, Interview Questions for Students with Physical Impairment in Menelik

APPENDIX D, Interview Questions for Students with Physical Impairment in Diell Betigle

APPENDIX E, Interview Questions for physical education teachers in Menelik

APPENDIX F, Interview Questions for physical education teachers in Diell Betigle

APPENDIX G, Interview Questions for administrator in Menelik

APPENDIX H, Interview Questions for administrator in Diell Betigle

APPENDIX I, Focus Group Discussion in Menelik

APPENDIX J, Focus Group Discussion in Diell Betigill

ACKNOWLEDGEMENT

First and foremost praises and thanks to God, the Almighty, for his help and blessings throughout my research work to complete the research successfully.

I would like to express my deep and sincere gratitude to my research adviser, Dr. Sewalem Tsega, for giving me the opportunity to do research and providing invaluable guidance throughout this research. Her dynamism, vision, sincerity and motivation have deeply inspired me. She has taught me the methodology to carry out the research and to present the research works as clearly as possible. It was a great privilege and honor to work and study under her guidance. I am extremely grateful for what she has offered me. I would also like to thank her for her friendship, empathy, and great sense of humor. Her perceptive criticism kept me working to make this research in a much better way. Working under her guidance was an extremely knowledgeable experience for me.

I am extremely grateful to my parents for their love, prayers, caring and sacrifices for educating and preparing me for my future. I wish to thank my loving and supportive husband Meekiyas Adessu for his love, understanding, prayers and continuing support to complete this research work.

My grateful appreciation goes to all teachers and principal staff also students with physical impairment of Diell Betigla and Menelik primary schools that helped me very much to conduct this study.

Finally, my thanks go to all the people who have supported me to complete the research work directly or indirectly.

Abstract

This study investigated challenges and opportunities of students with physical impairment in health and physical education lesson in some selected schools of Addis Ababa. In order to obtain relevant information in depth interview, practical field observations and group discussion were conducted with teacher, school principals and students with physically impaired also with special needs department. It is also aimed at suggesting possible recommendations that help to improve the level of involvement of students with physical impairment in physical education classes. Qualitative approach of research was used in this study. Data's were organized and analyzed from in-depth interviews, practical field observations and group discussion analyzed qualitatively. Results of the study showed that, the involvement of students with physical impairment in health and physical education lesson was very low. Low level of awareness of school principals, teachers, students without disability peer groups and others about the participation of the students with physical impairment in health and physical education classes so that their support and encouragement to the issue raised was found discouraging. Curriculum adaptation, teachers training, proper equipment, comfortable fields were also found inadequate. Finally, based on the findings and conclusion of the study, it was recommended that, awareness creation strategy should be designed to the school principals, teachers, and students with physical impairment and other stakeholders so that they could support and encourage students with physical impairment to participate in health and physical education lesson. Curriculum materials for physical education should be improved in order to address the special needs of students with physical impairment. Health and Physical education teachers should be provided relevant training and they need to be innovative, flexible, creative, willing and capable of initiating students with physical impairment to participate in health and physical education lesson.

ACRONYMS

ICF- International Classification of Functioning Disability and Health

IDEA-Individuals with Disabilities Education Act

DSE-Directorate of School Education

WHO-World Health Organization

ILO- International Labor Organization

MOLSA- Ministry of Labor and Social Affairs

QPE- Quality Physical Education

IEP- Individual Education Plan

HDL -High-Density Lipoprotein

LDL- Low-Density Lipoprotein

NASPE- National Association for Sport and Physical Education

EFA- Education for all

MDG- Millennium Development Goal

IBIS- Positive Behavior Intervention and Sport

Declaration of Originality

I declare that this thesis is an original report of my research, has been written by me and has not been submitted for any previous degree. The collaborative contributions have been indicated clearly and acknowledged. Due references have been provided on all supporting literatures and resources.

Signature _____

Date _____

CHAPTER ONE

1. Introduction

1.1 Background of the Study

Health and physical education programs throughout the world are challenged to provide meaningful and relevant learning experiences for children and youth. In the 21st century, learning strategies will be dramatically different, requiring children and youth to gain critical thinking and problem-solving skills; operate with agility and adaptability; effectively analyze information; communicate in various oral and written forms; reflect greater curiosity, imagination, and innovation in their thinking; and develop healthy active lifestyles (Gut, 2011; Kay & Greenhill, 2011).

Physical disabilities can affect a person's ability to move about, to use arms and legs effectively, to swallow food, and to breathe unaided. Such limitations may also be evident in other areas such as vision, cognition, speech, language, hearing, and bowel movement. In recent years, due to advancement in medicine and technology, more and more students with mild to severe physical disabilities are now served in regular classrooms. Hill (1999) stated that students with chronic physical and medical conditions are being integrated into general public schools alongside their age- and grade-appropriate peers in far greater numbers than in the past. Some have attributed this change, particularly for students with orthopedic impairments, to the removal of physical barriers in the school environment and to changes in attitudes and beliefs Hill, (1999). Since students with physical disabilities face many challenges during their school years due to their precarious physical and health situations, their education requires careful planning involving administrators, teachers, parents, and students (Smith, 2007).

Physical education is a learning process designed to foster the development of motor skills, health related fitness, knowledge and attitudes relative to physical activity through a series of carefully planned and conducted experiences. It is the only area of the school curriculum that teaches motor skills and an understanding of human movement and provides opportunities to facilitate their development (Deborah and Bennet, 1993).

The practice of physical education, physical activity and sport is a fundamental right for all. Every human being has a fundamental right to physical education, physical activity and sport without discrimination on the basis of ethnicity, gender, sexual orientation, language, religion, political or other opinion, national or social origin, property or any other basis. The freedom to develop physical, psychological and social wellbeing and capabilities through these activities must be supported by all governmental, sport and educational institutions. Inclusive, adapted and safe opportunities to participate in physical education, physical activity and sport must be available to all human beings, notably children of preschool age, women and girls, the aged, persons with disabilities and indigenous people. Equal opportunity to participate and be involved at all supervision and decision making levels in physical education, physical activity and sport, whether for the purpose of recreation, health promotion or high performance, is the right of every girl and every woman that must be actively enforced. The diversity of physical education, physical activity and sport is a basic feature of their value and appeal. Traditional and indigenous games, dances and sports, also in their modern and emerging forms, express the world's rich cultural heritage and must be protected and promoted. Every human being must have the opportunity to attain a level of achievement through physical education, physical activity and sport which corresponds to their capabilities and interest (UNESCO,2015).

Inclusion has changed how these students are educated, with the continuing development of the Individuals with Disabilities Education Act (IDEA) ensuring rights to a quality education. Students with disabilities receive physical education services, specially designed if necessary. If the child has a disability, the school must provide physical education as part of the child's special education program (IDEA, 2004).

Many students with disabilities can safely and successfully participate in general physical education, with or without accommodations and supports. However, some children benefit from specially designed or adapted physical education. Content in adapted physical education should mirror the general physical education curriculum to the greatest extent possible. Because physical education is a required component of special education, the child's general and/or adapted physical education teacher should be included as a member of the team if the student is receiving specially designed physical education. Depending on a student's disability, a separate, adaptive class or modifications within a typical gym class both offer physical educations. Those physical

activities are benefits to students as physical impairments to maintain inclusive classrooms; teachers should have knowledge of physical impairments, assistive technology, teaching strategies, and necessary accommodations and modifications (MoE, 2006).

At a minimum, if the child is receiving specially designed or adapted physical education, the IEP should include a summary of present level of performance in physical education content, the frequency and duration (minutes and days per week or stipulated time period) of physical education services, measurable goals and objectives about content, and the placement where these services are provided. Like all other special education and related services, physical education instruction should be detailed in the IEP (IDEA, 2004).

person with physical disability experiences may be either congenital, or a result of injury, muscular dystrophy, cerebral palsy, amputation, multiple sclerosis, pulmonary disease, heart disease or other reasons. Some persons may experience non-visible disabilities that may include respiratory disorders, epilepsy, or other conditions. Physical disability includes upper or lower limb loss or disability, manual dexterity and disability in co-ordination with different organs of the body. Disability in mobility can either be a congenital or acquired with age problem. This problem could also be the consequence of disease. People who have a broken skeletal structure also fall into this category of disability. Some persons may experience non-visible disabilities that may include respiratory disorders, epilepsy, or other conditions. Persons with physical and mobility impairments may need assistance with mobility, transfers, and ambulation. They may have also limited range of motion, and be reluctant to attempt movement, or experience a perceptual or cognitive impairment. They may experience pain, discomfort; depression or anxiety. Persons with these impairments may require prolonged bed rest, and have medical restrictions. They may have musculoskeletal or neuromuscular impairments as well (disabled-world.com).

The primary purpose of physical education instruction is to change psycho motor behaviors, there by facilitating self-actualization, particularly as it relates to understanding and appreciation of the body and the self in motion and at rest. Adapted physical activity is a cross disciplinary body of knowledge directed toward identification and solution of psycho motor problems thought the lifespan. It is one approach to increasing the quality and quantity of positive movement experiences. This is an area of study that prepares professionals to help resolve

psycho motor problems that limit success. In 1952 the committee on Adapted Physical Education adopted the following resolution to accommodate children with disabilities in physical education programs. It consisted of a diversified program of developmental activities, games, sports, and rhythms suited to the interest's capacities, and limitations of students with disabilities who may not safely or successfully engage in unrestricted participation in the vigorous activities of the general education program. The foundation for motor learning in children and the subsequent development of progressively more complex skills occurs during the early years of life. It is during this time that an individual who is physically more active is more likely to have the opportunity to refine their motor skills. It is through active play that children develop the fundamental movement patterns, such as crawling, standing, walking, running and jumping (*Abass, 1999*).

The Ethiopian constitution established universal right to education by all groups of society. Art 41 and 91 of the constitution particularly emphasize on the need to allocate resources for assisting people with special needs Disability in Ethiopia Ensuring the equal rights of persons with disability and their full participation in society. However, the Program does not provide for a timetable for the implementation of these activities making it difficult to monitor progress. Thus, the implementation of the Developmental Social Welfare Policy and the National Program of Action for the Rehabilitation of Persons with Disabilities remains a challenge. Physical impaired should not exclude students from participating in physical activities. Depending on a student's disability, a separate, adaptive class or modifications within a typical gym class both offer physical educations. Those physical activities are benefits to students as physical impairments to maintain inclusive classrooms; teachers should have knowledge of physical impairments, assistive technology, teaching strategies, and necessary accommodations and modifications (*MoE, 2006*).

The environment creates many challenges for students with physical impairments in Menelik and Diell Betigill primary schools and makes them not to participate in everyday practical class's activities then these students are losing the opportunities that can get from the activity. The researcher try to solve the problems that hinder children whom physically impaired, but it needs further investigation. Also to develop the awareness of the teachers, school community and student towards the use of involving in physical education and the benefits of it because these

problems still increase in developing countries always try to solve the challenges but still lots of challenges to implement it practically. So the researcher aims to fulfill these challenges.

1.2 Statement of the problem

The effects of physical exercise on cognition showed better performances in learning and memory abilities, cognitive functioning, especially able to activate neuronal brain metabolism (Gomez-Pinilla and Hillman, 2013). Furthermore, providing opportunities for physical exercise is the critical element of environmental enrichment explaining the influence on neurogenesis (Kobilo et al., 2011). Physical exercise improves cognition, benefits for the mind of a disabled individual by taking part in regular exercise, symptoms of depression or anxiety can be declining through time, which brings positive effect in mood and general wellbeing. Physical activity prevents a range of illnesses and reduces the effects of age and the incidence of chronic illness and disease such as coronary heart disease, stroke, diabetes mellitus and colon cancer (*Vander et al., 2004*).

In other point the effect of physical education is produce skeletal muscles that causes energy expenditure cardio-respiratory endurance, muscular strength and endurance, flexibility, body composition, and hand eye and hand-foot coordination physical activity is critically important for the health and well-being of young people. It improves young people's physical fitness, that is fosters muscle and bone strength which is a vital basis for healthy growth and development and the reduction of injuries, enhances heart, lung function and cardio-respiratory endurance (*World Health Organization, 2007*).

Physically impaired students lack the above health benefits since they face many problems to take part in health and physical education practical classes and it is a great challenge for those students to participate in physical education practical classes as equal with students without disabilities. For anyone with a disability or mobility issue, it is vital to be as physically active as possible. If not, they will not be able to participate safely and successfully, so students with physical impairment miss the physical, social and psychological benefits that physical education program can offer them. In our country few researchers try to work on this area but still the problems are there so researcher try to fulfill the gap and give ideas for further stand

1.3 Significance of the Study

Physical education is a unique subject which serves children with disabilities by teaching motor skills to help them in daily life and recreation. In addition to this, teachers of the school are benefited from this research. They can go through with the good practices and struggle to the experience and opportunities by forwarded solutions of the student researcher. As a result, students become beneficiaries of physical education class also the city administration can use to know about experience and opportunities of doing physical education lesson for students with physically impairment and expand this practice to all schools in the city. So as a result this findings or study expect to have the following important contributions:

- To upgrade the awareness of students with physical impairment on participating in health and physical education practical classes.
- Provide input for further study on the issue.
- It also serves as a good indicator for further researches relating to issues of PE challenge and experiences.

1.4 Objective of the Study

1.4.1 General Objective

The overall objective of this study was to investigate the challenges and opportunities of teaching students with physical impairment physical education lesson in Menelik and Diell Betigill primary schools.

1.4.2 Specific Objective

- To identify the opportunities of teaching students with physical impairment.
- To suggest possible recommendations to improve the degree of involvement of these children in the physical education class.
- To assess the challenges of physically impaired student's participation in physical education practical classes.

- To identify the factors that affect physically impaired students' participation in physical education practical classes
- To find out the alternative ways to improve physically impaired students' participation during physical activities.

1.5 Limitation of the study

This study has some limitations the focus group discussion group sometimes they come late for the discussion, classes canceled due to different reasons so the researcher try to reschedule again. Also the researcher needs to work more than two schools but because of different reasons not done, so on this area other researcher can work.

1.6 Research Questions

The purpose of this study was to explore the challenges and opportunities of students with physical impairment in health and physical education lesson in Menelik and Diell Betigill primary school. Then this research is focused on investigating the problem by raising the following research questions;

1. How do physical education teachers assess students with physical impairment?
2. To what extent students with physical impairment involve in health and physical education classes?
3. What are the major challenges that affect students with physical impairment to participate in physical education class?
4. Does teaching method affect the participation of students with physical impairment in physical education lessons?
5. What are the opportunities that students with physical impairment get if they involve in physical education activities?

1.7 Scope of the Study

The main focus of this study is to investigating the challenges and opportunities of students with physical impairment in physical education. This study gives priority to identify the level of

challenge and opportunities of teaching students with physical impairment in physical education classes.

1.8 Organization of the Study

The study consists five chapters the first chapter contains background, statement of the problem, research questions, objective of the study, significance of the study, limitation of the study, scope of the study, definition of terms. Chapter two contains review of related literature. Chapter three contains the research design and methodology, approach, data collection instruments, data collection procedure, data organization and analysis and ethical considerations. Chapter four is about presentation of the findings and discussion and the last chapter is about summary, conclusion and recommendation.

1.9 Definition of Terms

Challenge: refer a difficult situation, to prove something difficult, and call on someone to fight or do something difficult.

Opportunity: refers to the access or possibilities that are appropriate and suitable to participate in school.

Physical Education: is that phase of general educational program which contributes to the total growth and development of the child, primarily through selected movement experiences and physical activities

Practical Activities: refers to physical education activities which are done practically in the field (Gymnastics, games,).

Opportunity: refers to the access or possibilities that are appropriate and suitable to participate in school.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1 A brief history of health and physical education

Physical inactivity is the fourth leading risk factor for non-communicable disease worldwide and is estimated to cause between 3.2 and 5 million deaths globally per year. Globally, physical inactivity is estimated to cause around 27% of diabetes, 30% of ischemic heart disease and 21%–25% of breast and colon cancer. Physical activity is also fundamental in achieving energy balance and weight control (*World Health Organization (WHO), 2018*).

Recent estimates show that approximately 31% of the world's population does not undertake the recommended amount of physical activity to gain protective health benefits. In the Eastern Mediterranean Region, the available data from eight countries show levels of inactivity range from about 30% to as high as 70%. Of concern, less than half of the countries of the Eastern Mediterranean Region have systematic monitoring of levels of physical activity in adults and children and very few countries have commenced any comprehensive action aimed at increasing levels of activity through sports, recreation, and cycling and walking (*World Health Organization (WHO), 2018*).

Global strategy on diet, physical activity and health, which called on Member States to develop national plans to promote physical activity furthermore, the Political Declaration agreed by all Member States during the UN High-level Meeting on Non-Communicable Prevention and Control, 2011, renewed the call on Member States to take actions to reduce physical inactivity. At the World Health Assembly in May 2013, Member States endorsed the need to implement actions to reach the target of a 10% reduction in physical inactivity by 2025 (*World Health Organization (WHO), 2018*).

At the Fifty-ninth Session of the Regional Committee, Member States passed resolution EM/RC59 which endorsed a framework for action to implement the UN Political Declaration on Non-communicable Diseases, including the implementation of the global recommendations on

physical activity and conducting mass media as one of the best buys and in this context, large-scale and sustained action through media and educational institutions.

Being physically active regularly reduces the risk of: heart disease by 30%, diabetes by 27% and breast and colon cancers by 21%–25%. Physical activity helps maintain a healthy weight and has a positive influence on mental health and well-being (*World Health Organization (WHO), 2018*).

Americans with disabilities are a group of approximately 50 million people that today led independent, self-affirming lives and who define themselves according to their personhood their ideas, beliefs, hopes and dreams – above and beyond their disability. Since the mid-1900s, people with disabilities have pushed for the recognition of disability as an aspect of identity that influences the experiences of an individual, not as the sole-defining feature of a person.

People with disabilities have had to battle against centuries of biased assumptions, harmful stereotypes, and irrational fears. The stigmatization of disability resulted in the social and economic marginalization of generations of Americans with disabilities, and like many other oppressed minorities, left people with disabilities in a severe state of impoverishment for centuries. In the 1800s, people with disabilities were considered meager, tragic, pitiful individuals unfit and unable to contribute to society, except to serve as ridiculed objects of entertainment in circuses and exhibitions. They were assumed to be abnormal and feeble-minded, and numerous persons were forced to undergo sterilization. People with disabilities were also forced to enter institutions and asylums, where many spent their entire lives. The “purification” and segregation of persons with disability were considered merciful actions, but ultimately served to keep people with disabilities invisible and hidden from a fearful and biased society.

The marginalization of people with disabilities continued until World War I when veterans with disabilities expected that the US government provide rehabilitation in exchange for their service to the nation. In the 1930s the United States saw the introduction of much new advancement in technology as well as in government assistance, contributing to the self-reliance and self-sufficiency of people with disabilities. President Franklin Delano Roosevelt, the first president with a disability, was a great advocate for the rehabilitation of people with disabilities, but still

operated under the notion that a disability was an abnormal, shameful condition, and should be medically cured or fixed.

In the 1940s and 1950s, disabled World War II veterans placed increasing pressure on government to provide them with rehabilitation and vocational training. World War II veterans made disability issues more visible to a country of thankful citizens who were concerned for the long-term welfare of young men who sacrificed their lives to secure the safety of the United States (From Charity to Confrontation, 2001).

Despite these initial advancements made towards independence and self-reliance, people with disabilities still did not have access to public transportation, telephones, bathrooms and stores. Office buildings and worksites with stairs offered no entry for people with disabilities who sought employment, and employer attitudes created even worse barriers. Otherwise talented and eligible people with disabilities were locked out of opportunities for meaningful work. By the 1960s, the civil rights movement began to take shape, and disability advocates saw the opportunity to join forces alongside other minority groups to demand equal treatment, equal access and equal opportunity for people with disabilities. The struggle for disability rights has followed a similar pattern to many other civil rights movements – challenging negative attitudes and stereotypes, rallying for political and institutional change, and lobbying for the self-determination of a minority community. Disability rights activists mobilized on the local level demanding national initiatives to address the physical and social barriers facing the disability community. Parent advocates were at the forefront, demanding that their children be taken out of institutions and asylums, and placed into schools where their children could have the opportunity to engage in society just like children who were not disabled. In the 1970s, disability rights activists lobbied Congress and marched on Washington to include civil rights language for people with disabilities into the 1972 Rehabilitation Act. In 1973, the Rehabilitation Act was passed, and for the first time in history, civil rights of people with disabilities were protected by law. The Rehabilitation Act of 1973 (Section 504) provided equal opportunity for employment within the federal government and in federally funded programs, prohibiting discrimination on the basis of either physical or mental disability. Section 504 of the Rehabilitation Act also established the Architectural and Transportation Barriers Compliance Board, mandating equal access to public services (such as public housing and public transportation services) to people with disabilities, and the allocation of money for vocational training. In 1975, the Education for

All Handicapped Children Act was passed to guarantee equal access to public education for children with disabilities. This act of legislation specified that every child had a right to education, and mandated the full inclusion of children with disabilities in mainstream education classes, unless a satisfactory level of education could not be achieved due to the nature of the child's disability.

The Education for All Handicapped Children Act was renamed in 1990 to the Individuals with Disabilities Education Act (IDEA), which further elaborated on the inclusion of children with disabilities into regular classes, but also focused on the rights of parents to be involved in the educational decisions affecting their children. IDEA required that an Individual Education Plan be designed with parental approval to meet the educational needs of a child with a disability. In the 1980s, disability activists began to lobby for a consolidation of various pieces of legislation under one broad civil rights statute that would protect the rights of people with disabilities, much like the 1964 Civil Rights Act had achieved for Black Americans. The Civil Rights Act of 1964 prohibited discrimination on the basis of race, religion, national origin, or gender, but people with disabilities were not included under such protection. After decades of campaigning and lobbying, the Americans with Disabilities Act (ADA) was passed in 1990, and ensured the equal treatment and equal access of people with disabilities to employment opportunities and to public accommodations. The ADA intended to prohibit discrimination on the basis of disability in: employment, services rendered by state and local governments, places of public accommodation, transportation, and telecommunications services.

Under the ADA, businesses were mandated to provide reasonable accommodations to people with disabilities (such as restructuring jobs or modifying work equipment), public services could no longer deny services to people with disabilities (such as public transportation systems), all public accommodations were expected to have modifications made to be accessible to people with disabilities, and all telecommunications services were mandated to offer adaptive services to people with disabilities. With this piece of legislation, the US government identified the full participation, inclusion and integration of people with disabilities in all levels of society.

While the signing of the ADA placed immediate legislative demands to ensure equal access and equal treatment of people with disabilities, deep-rooted assumptions and stereotypical biases were not instantly transformed with the stroke of a pen. People with disabilities still face

prejudice and bias with the stereotypical portrayal of people with disabilities in the movies and in the media, physical barriers to schools, housing and to voting stations, and lack of affordable health care (*American Policy and the Fight for Equality, 2003*).

2.2 Barriers

Barriers within schools that restrict teachers providing physical education programs have been classified by Morgan and Hansen (2008) as being either institutional (outside the teachers' control) or teacher-related (arising from the teachers' behavior). The simplicity of this classification enables it to be applied to both primary and secondary school settings.

2.2.1 Institutional barriers

Institutional barriers including budget constraints, scarce resources, reductions in time provisions in the curriculum, the absence of professional development, the crowded curriculum itself and the lack of facilities and equipment (Commonwealth of Australia, 1992; Hardman, 2008; Morgan & Hansen, 2008). Dwyer et al. (2003) reported that the lower priority given to physical education, the absence of performance measures for physical education and activity, and insufficient infrastructure were the three major institutional barriers identified by generalist elementary teachers in Canada to the provision of a curriculum that was capable of meeting the health and physical education guidelines. Institutional barriers point by lack of facilities, lack of time, crowded curriculum funding , access to and lack of equipment , support from other staff , lack support from administration, access to professional development , sport not priorities in school , large class sizes , budget constraints ,insufficient infrastructure , other teaching priorities, quality of facilities , level of professional development , school executive attitudes toward physical education insufficient number of physical education staff and lack of performance measures for physical education (Wintrup & Janzen, 2005).

2.2.2 Teacher-related barriers

Teacher-related barriers The barriers described include possessing low levels of confidence or interest in teaching physical education, being unable to provide safely planned and structured lessons, having had personal negative experiences in physical education and lacking training, knowledge, expertise and qualifications to provide physical education. Teacher-related to mention some of them lack of training and knowledge, difficulty of providing safely planned and structured lessons, gender stereotyping of activities, poor planning perceptions of the value of physical education, high level of accountability for other subjects, confidence in teaching physical education, interest in/enthusiasm for physical education , personal school experiences in physical education, attitudes toward physical education, expertise/qualifications(De Corby, Halas, Dixon, Wintrup& Janzen, 2005).

2.2.3 Environmental barriers

Cultural, economic, institutional, physical, and social and attitudinal factors within the environment can either support or hinder the participation of children with disabilities. For example, the physical environment is primarily designed for the characteristics or needs of the “average” person. Children with physical disabilities encounter restricted physical environments and find them-selves unable to integrate into the broader community. The social environment (negative attitudes) and institutional environments (restrictive policies and bureaucracy) also can limit children’s participation levels. These organizations are diverse and include health care facilities, day care programs, preschool programs, schools and school boards, city recreational programs, sports associations and voluntary, charitable organizations. Parents express many frustrations about the time required for them to wade through bureaucracy on behalf of their child (Environmental Factors of Children with Physical Disabilities, 1999).

2.2.4 Student related barriers

Student related barriers are lack of student engagement in physical education; dislike the activity, lack of intrinsic and extrinsic motivation, intrapersonal barriers. The attitudes of students with physically impairments can also be a major barrier to their successful inclusion in general physical education. Students may or may not control these barriers (Kate A. Jenkinson (2010).

2.2.4.1 Dislike the activity

Students and their attitudes towards physical education the study demonstrated that the majority of students did not regard physical education in the same way as they do many of their other subjects such as math or geography. Carlson (1995) student's attitudes were often linked to their expectation of the subject. The students expressed that they saw physical education as a break from their other studies, not as a "real subject" that would aid their likelihood of getting a good job or a place at university and thus, not as important as other subjects. (Smith, 1994) low ability or those socially isolated has been very little in-depth examination of competent students and their attitudes towards physical education. Teachers tend to recognize those students who are talented and try to encourage and stimulate these students to receive their full potential. The assumption of most teachers is that competent students enjoy and like physical education. Thus equating ability with attitude Bain (1980) students needed to be positively socialized into physical education to have positive attitudes towards it.

Bandura (1977, 1986) adolescents form their attitudes from influences around them. In early adolescence they are primarily influenced by their parents but as the student mature during adolescence they tend to become more influenced by significant others, like teachers, coaches and peers, teachers influence their student's attitudes towards the subject that they teach. Some studies have demonstrated that environment can affect attitude formation. Henry (1993), Rovegno (1994) in their studies, described how the school community and school affect the attitudes of the students within it. For example, students who did not relate and adapt to the school's environment developed a negative attitude towards school. This would suggest that environment can be a powerful influence on student attitude formation.

2.2.4.2 Lack of intrinsic and extrinsic motivation

Participation in sports and physical activities can lead to feelings of autonomy and competence and may produce joy, excitement, thrills, and other satisfying emotions. In that respect it is easy to see that physical activities may be inherently intrinsically motivating. On the other hand, some people say that they would not participate unless there was a material payoff, or unless they were coerced. Others declare that attempting physical challenges leaves them feeling incompetent and humiliated, anxious or pressured. Thus, if people reap the benefits of participation and avoid the motivational pitfalls, it is necessary to understand the processes that may lead to specific perceptual outcomes. Persistence at exercise is related to the motivational constructs. For example, young athletes cite “fun” as a primary reason for participating in sports. Feeling of fun depends on experiencing the intrinsic satisfactions of skill improvement, personal accomplishment, and excitement (Gill, Gross, & Huddleston, 1985).

2.2.5 Social-level barriers

Social barriers are related to the conditions in which people are born, grow, live, learn, work and age or social determinants of health that can contribute to decreased functioning among people with disabilities. People with disabilities are far less likely to be employed. Compared to less than people with disabilities are more likely to live in poverty compared to people without disabilities. Children with disabilities are almost four times more likely to experience violence than children without disabilities (Centers for Disease Control and Prevention, 2016).

Children often depend on their parents to facilitate their physical education involvement (transportation, equipment, functional assistance). Children’s dependence on adults is amplified when they have disabilities. Most of the time parents, community recreation personnel do not understand how to adapt games for children with disabilities or how to effectively communicate with children. Teachers’ lack of preparation leads them to often exclude students with disabilities from their classes, even well prepared teachers suffer from a lack of adapted equipment that is necessary for some adapted sports sometimes perceive students as lacking adequate skills and confidence (Jeffrey Martin, 2013).

2.2.6 Physical barriers of school compound

Despite the facilitators health benefits, social context and fun, there are depending on age and type of disability barriers on the individual, social and environmental level: Individual: lack of knowledge about where to exercise; fear of falling; the nature of the impairment can produce pain; lack of energy Social: children with disabilities depend more on parents than healthy children do; Physical Education teachers lack professional preparation or equipment and have to exclude students with disabilities; doctors provide unnecessary blanket medical excuses which allow students with disabilities to skip Physical Education; lack of friends to play for children; physical abilities are underestimated by health professionals. Environmental: wheelchair; lack of place to play for children; health clubs are not accessible; barriers in outdoor areas (e.g. poorly lit or wooded walking paths) (Martin, JJ, 2013). Barriers are structural obstacles in natural or manmade environments that prevent or block mobility (moving around in the environment) or access. Examples of physical barriers include: Steps and curbs that block a person with mobility impairment from entering a building or using a sidewalk; Mammography equipment that requires a woman with mobility impairment to stand; and Absence of a weight scale that accommodates wheelchairs or others who have difficulty stepping up(Centers of Disease Control and Prevention, 2016).

2.2.7 Attitudinal barriers

Negative attitudes to disability are the biggest barrier to students with disability accessing and benefiting from regular education. Negative attitudes can be found at all levels: parents, community members, schools teachers, government officials and even students with disability themselves lack of knowledge, misinformation and socio-economic values about human life, respect and dignity all encourage negative attitudes towards disability.(Cain, 2002).) Children living with disabilities are often faced with prejudice, stereotyping and discrimination in society their fear of facing prejudices and stereotypes within society prevent them from exploring and experiencing the full extent of their potential. The impact of such attitudes is evident in the home, school, community and at the level of national policy-making where the needs of the disabled are not incorporated in the planning, budgeting and programming stages. Some parents are fear of their safety, or for the respect and honor of the family, they sometimes lock their

disabled children in the house when they have to go out, or hide them completely so that neighbors may not even know they exist (Cain, 2002).

According to Efrem Kentiba 2013, the barriers of students with physical impairment in physical education activates the participants were requested to mention their perceptions about barriers affecting the participation of disabled children in physical education and extracurricular activities, basically they mentioned issues related with materials and equipment's, insufficient space, poor school compounds, poor playgrounds. Without the specific training of a physical educator, it may be difficult for someone to acknowledge the importance of space when implementing activities and programs, however just by looking at school physical education class; one can get a very good understanding of the number of classes in one time slot, and the numbers of students which these physical educators must plan for.

As it is argued by scholars in the area "insufficient space and equipment are elements of physical education programming that continue to exist in one form or another, and that the existence of such conditions makes quality instruction difficult, even for the best of teachers." It should be emphasized that physical educators become experts in the field of improvisation and creativity, due to the rapidly changing conditions within the field and changing space and resources. Activities planned outside may need to be modified due to certain weather conditions or the conditions of the playing surfaces. These many factors of space and conditions greatly influence the planning procedures physical educators must make in order to maintain a quality physical education program In addition to this it is mentioned by some of the participants most are there lots of barriers which hinders the participation of disabled children in school PE and extracurricular activities (Efrem Kentiba 2013).

2.3 Opportunities of health and physical education

According to Elias Fikadu 2012, almost all sample schools have no equipment to teach PE subject for students with disabilities. Regarding to the school environment to teach PE, for students with physical impairment again only one school from those samples have Conducive environment. The researcher has observed that in many selected sample schools, students with

physical impairment did not participate in health and physical education activities. In most schools they stayed under the trees, near to the school fence, stay in class to do their own job, or allowed to go in library (Elias Fikadu 2012).

According to Elias Fikadu 2012 finding Health and physical education provides many benefits for individuals with disabilities: 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. The development of skills and abilities that will enable them to participate in enjoyable leisure time activities and recreational pursuits (Elias Fikadu 2012).

Physical activity is a "movement of the human body that results in the expenditure of energy at a level above the resting metabolic rate" Benefits associated with involvement in physical activity include reduced risk of heart disease, diabetes, high blood pressure, high cholesterol levels, and decreased stress levels (Surgeon, 1996).It is essential for quality of life reasons and as a public health promoter (Martin, 2013). In students with disabilities physical activity has an amplified importance based on higher rates of chronic diseases which physical activity can influence. Above those metabolic advantages individuals with disability can further profit from Physical Activity: Health: physical activity also has amplified importance for cognitive, emotional and social difficulties psychological benefits such as enhanced self-perception through successful Physical activity experiences physical activity can reduce stress, pain, and depression ADLs are perceived to be easier (Martin, 2013). Social contact: physical activity can reduce the stigmatization process and negative stereotypes; also contribute to improve social status: non-disabled people see physically active individuals with disabilities more favorably than non-active people. Social benefits as the nature of many sport activities leads to increased social integration, bonding and friendship (Martin, 2013).Fun: physical activity leads to mood benefits Enjoyment through social interaction of both fitness staff and other participants (Martin, 2013).

Exercise can provide significant benefits for children in all of the developmental stages of life. Regular participation in physical education classes would also promote positive advancements in students with special needs so to mention some of the benefits;

2.3.1 Physical improvements

Participation in physical activity and sport leads to improved levels of well-being and physical health. Children who have physical disabilities which can result in below age-level performance in typical motor skills. Regular involvement in physical education and sport can help them to develop the skills they need (SPARK, 2016).

When encouraged to participate in frequent fitness measures, many students with special needs see improvements in everything from their hand-eye coordination and flexibility, to their muscle strength, endurance, and even cardiovascular efficiency. These are all simply the natural benefits of exercise a development of better motor skills and enhanced physical health that helps individuals to fight back against problems such as obesity, and the health complications that follow (SPARK, 2016).

2.3.2 Mental improvements in confidence and well-being

Regular exposure to sports through physical education classes isn't only good for a child's body it's beneficial to their mind, too. Physical activity improves general mood and wellness in psychiatric patients suffering from anxiety and depressive disorders. What's more, regular fitness links to improvements in self-esteem, social awareness, and self-confidence — all essential for empowering the lives of young people with special needs. Providing a physical outlet may help students reduce or cope with anxiety, stress and depression while interaction and involvement (SPARK, 2016) with other students will help to give children a sense of accomplishment and confidence. For students with special needs, developing a sense of self-esteem can be particularly important, as they may often feel isolated and removed from the group. These children need their physical education teachers to involve them in environments where they can feel as though they're successfully contributing to a group and their abilities in other areas will improve according to their positive self-image and confidence (SPARK, 2016).

2.3.3 Behavioral improvements in attention, relationships, and academics

Physical education leads to cognitive improvements in children with special needs, allowing them to access skills that they couldn't challenge within a traditional classroom setting. The

structure of sport – which comes with a set of rules and organization, can be a learning tool that helps children to practice self-regulation and enhance their decision making skills. On top of that, children with special needs can learn to focus on specific goals, and work on their verbal communication by interacting with peers through sport (*SPARK, 2016*).

Physical education is about a lot more than simply learning how to engage in a particular sport it teaches children a range of skills, from how to work as a team, to how to solve problems, increase attention span, and focus on task-based behavior. Eventually, those skills can transfer into other classroom settings too, so that students with special needs have a greater ability to learn and engage with their peers outside of physical education (*SPARK, 2016*).

2.4 Methods of Modifying Sports and Activities

Modified sports can take many forms but generally designed to provide an introductory and/or more accessible offering to various potential participatory groups such as children, mature-age participants, persons with disability, time poor people, or for those who are simply looking for new physical activity and social engagement opportunities. Modified sports can also provide an opportunity to develop general movement skills and basic techniques. Modified equipment, facilities, and rules are commonly used because of the developmental stage (age, physical size, motor skill proficiency) of participants. One of the most important contributors to successful inclusion in sport activities is adapting things to suit the needs of individual participants. In particular this applies to disability, where, adaptations are applied so that participation in activities or development of sport-based skills can occur effectively (*SPARK, 2016*).

2.4.1 Create Smaller Groups

Large class sizes make it hard to give each student personal attention, not to mention a student with special needs it's important to break into smaller groups to ensure everyone participates and gets the attention they need. This can involve utilizing the skills of teacher helpers, special needs assistants, and student leaders, assigning them to supervise different groups of activities. Team sports with a low number of players-per-team such as ball hockey can also better ensure all students are involved and active (*SPARK, 2016*).

2.4.2 Adapt Existing Activities

Physical education teachers don't need to reinvent the wheel in order to be inclusive. Adapted physical activity involves updating traditional team and individual sports in order to make the game better suited to students with motor and intellectual disabilities. Adapting existing activities is a valuable tool for physical educators since the games can be played by all students as part of inclusion and universal design for teach (*SPARK, 2016*).

2.4.3 Right Equipment

This is another element of adapting activities for students with special needs. A variety of specialized equipment can greatly impact a student's ability to be involved in physical education activity. For example, children with coordination issues may have a difficult time with standard issue balls. Bean bags, soft balls, and other options may be good alternatives that promote inclusion and success. Cones and spot markers may also be helpful in providing spatial boundary definition and play space area for students with sensory motor issues. Consider padding play area surfaces for students with dyspraxia, and ensure an area is easy for students in wheelchairs to maneuver (*SPARK, 2016*).

2.4.4 All-In Participation Activities

Another way of including children with special needs in physical education plans is to select team building activities that require participation from every student. Simple obstacle courses and relay races can be options, as can having small groups of students coach one another through basic aerobics moves. Having students help one another will create leadership skills and bonds between special needs students and their peers (*SPARK, 2016*).

According to (ASC 2018)many sports have recognized that the needs and abilities of children are different from that of adults and have developed modified sports. Successful modifications to sports include: size of equipment, playing area and goals, duration of games, Team sizes and interchanges. These modified games use equipment that better suits the size and ability of the children, smaller playing areas, goals that are smaller or lower, smaller teams and/or more interchanges. Some examples of how to modify activities;

Basketball- Give two students a basketball and watch the action from the sidelines. If students in a wheelchair can maneuver the chair, then game is on for a physical activity where the only modification might be a lighter wheelchair built for recreational sports and setting the net down to mid-pole level so that younger students in wheelchairs can wheel by and slam dunk the ball anytime they want to create a roar from their peers (Barbara and Elizabeth Wistrom, 2012).

Table Tennis: Lower the table and let the fun begin for students in wheelchairs or on crutches. If they can balance and stretch their arms across the table to stop and hit a tiny little ball with an oversized racket, then they can play table tennis since the action requires more finesse in upper body movement than finesse in moving the chair or even the crutches (Barbara and Elizabeth Wistrom, 2012).

Bowling: Teachers can simulate bowling activities in the classroom using a tennis ball and stacked Styrofoam cups to provide students with physical disabilities loads of fun with their non-disabled peers. One good arm is all it takes to score a strike (Barbara and Elizabeth Wistrom, 2012).

Playground Activities: There are a number of playground activities like sponge dodge ball and football madness with a soccer ball where toss and movement is core to the activities. Keep the activities manageable with many winning moments, maximum engagement and lots of laughter to make playground time fun for elementary students with physical disabilities. With any activity, safety should be first and foremost in creating the rules of the activity, monitoring the inclusion and participation of all students in the activity, and insuring that students with physical disabilities can count recreation in school as part of the fun part of social peer engagement and school attendance. Remember that students with physical disabilities can have recreation fun too (Barbara and Elizabeth Wistrom, 2012).

2.5 How to teach students with physical impairment

Physical education teachers around the world are coming up with new ways to include all students and get everyone moving. Here are seven solutions in teaching physical education (Karen Wang; 2013).

2.5.1 Sensory Integration

Many students are also sensitive to bright sunlight outdoors and the sound of squeaking sneakers on the gym floor, making it difficult for physical education teachers to find an appropriate location for class. The music problem is easy to solve – lower the volume or turn it off. Soundproof headphones may also be used indoors, and sunglasses can be used outdoors. Schools may find other indoor lighting options that are more cost-effective simply shutting off some lights are relying more on natural lighting(Karen Wang; 2013).

2.5.2 Behavior

Behavior is always a concern in physical education classes, where there's plenty of movement and incidents can happen in rapid succession. Positive Behavior Interventions and Support (PBIS) are a systematic, proven method to prevent negative behaviors and increase healthy interactions. The method may be summarized as "Prevent, Teach, and Reinforce." Then the class material is taught through positive interactions (Karen Wang; 2013).

2.5.3 Class Size

Physical education classes are becoming larger and larger due to budget constraints. By working with the school's social worker, it is possible to create a positive experience for a student with special needs in a super-sized class. Peer-to-peer support groups can work together in class to ensure full inclusion (Karen Wang; 2013).

2.5.4 Team Building

Physical Education is the perfect opportunity for team building exercises. Instead of competitive games, the class can focus on creative games that only succeed when a whole team works together. Before any game, explained the students had to stay with their team and help their team members reach the goal – leaving a team member behind was never an option (Karen Wang; 2013).

2.5.5 Professional Development

Many teachers of physical education complain about a lack of professional development opportunities. An increasing number of teacher certification programs offer classes in Adaptive Physical Education. The Adaptive Physical Education National Standards (APENS) organization promotes teacher certification, and its goal is to place certified Adapted Physical Educator (CAPE) teachers to become involved in the process of inclusion (Karen Wang; 2013).

2.5.6 Accessibility

In 2010, the US Department of Education made recommendations to increase accessibility in physical education classes. Softer surfaces such as sand or wood chips make it difficult to maneuver a wheelchair. Gym surfaces and outdoor mats are one way to make physical education more accessible. Another way is to level the playing field by having the whole class play a game such as sitting volleyball or scooter soccer (Karen Wang; 2013).

2.5.7 Alternatives

In some cases, enrollment in a physical education class is not feasible. But it is still possible to incorporate physical activity and healthy lifestyle habits into a special education curriculum: take frequent “movement breaks” by going for a walk, learning to jump rope or spending 10 minutes on a playground. Develop a daily 15 minute workout routine, follow through on the student’s interest in a specific sport, such as tennis or gymnastics, and develop a fitness routine around that follow through on a student’s interest games. It has been demonstrated again and again that physical education enhances cognitive function and academic performance. Social skills and collaborative teamwork are also benefits of a balanced physical education program. Make physical education inclusive and accessible to all students so that they can learn the life lessons that can’t be taught in a traditional classroom (Karen Wang; 2013).

2.6 Types of Physical Disabilities

According to Lisa Roundy, (2003-2018), There are four main categories of physical disabilities:

Mobility impairments; Mobility impairment is defined as a category of disability that includes people with varying types of physical disabilities. This type of disability includes upper or lower limb loss or disability, manual dexterity and disability in co-ordination with different organs of the body. Disability in mobility can either be a congenital or acquired with age problem. This problem could also be the consequence of disease. People who have a broken skeletal structure also fall into this category of disability.

Speech impairments, is a condition in which the ability to produce speech sounds that are necessary to communicate with others is impaired. Speech impairments can be mild, such as occasionally mispronouncing a couple of words, to severe, such as not being able to produce speech sounds at all (*Lisa Roundy; (2003-2018)*).

Vision impairments, is another type of physical impairment. There are hundreds of thousands of people who suffer greatly from minor to various serious vision injuries or impairments. These types of injuries can also result in severe problems or diseases such as blindness and ocular trauma. Some other types of vision impairment include scratched cornea, scratches on the sclera, diabetes-related eye conditions, dry eyes and corneal graft, macular degeneration in old age and retinal detachment (wikipedia.org Physical disability).

Hearing impairments is a partial or total inability to hear. Deaf and hard of hearing people have a rich culture and benefit from learning sign language for communication purposes. People who are only partly deaf can sometimes make use of hearing aids to improve their hearing ability (*Lisa Roundy; (2003-2018)*).

According to Handicaps welfare association; (2012), There are two major categories under the Physical Disability Group, they are: Muscular skeletal disability, It is defined as the inability to carry out distinctive activities associated with movements of the body parts due to muscular or bone deformities, diseases or degeneration. The disabilities grouped under muscular skeletal disability are: Loss or Deformity of Limbs, Muscular Dystrophy, It is defined as the inability to perform controlled movements of affected body parts due to diseases, degeneration or disorder of the nervous system. The categories are: Cerebral Palsy, Spinal Bifida, Poliomyelitis, Stroke, Head Injury, and Spinal Cord Injury (Handicaps welfare association; 2012).

This category of disability includes people with varying types of physical disabilities including: Upper limb(s) disability, Lower limb(s) disability and Manual dexterity. Disability in coordination with different organs of the body Disability in mobility can be either an in-born or acquired with age problem. It could also be the effect of a disease. People who have a broken bone also fall into this category of disability (Nazarov, 2012).

2.7 Causes of Physical Disabilities

Physical disabilities can be genetic and acquired before birth and during the birth process or happen later in life due to an accident or illness. It can range from mild to severe. Some can be improved while others cannot. There are many different causes for physical disabilities. Some causes of physical disabilities are (Health Topic Monday 30, October, 2017).

Inherited or genetic disorders, such as muscular dystrophy Genetic disorders is a category of diseases that includes certain types of birth defects, chronic diseases, developmental problems and sensory deficits that are inherited from one or both parents (Health Topic Monday 30, October, 2017).

Conditions present at birth (congenital), such as spinabifida Congenital disorders can be inherited or caused by environmental factors and their impact on a child's health and development can vary from mild to severe. A child with a congenital disorder may experience a disability or health problems throughout life (Health Topic Monday 30, October, 2017).

Serious illness affecting the brain, nerves or muscles, such as meningitis there are many types of chronic illness, including AIDS, arthritis, diabetes and multiple sclerosis. A chronic illness may have periodic flare-ups that come and go or may gradually become worse over time. When a person has a chronic disease, they must constantly manage its symptoms. Even though treatments may exist to ease the physical effects of these diseases, many who suffer from a chronic illness face a number of challenges (Health Topic Monday 30, October, 2017).

Spinal cord injury a spinal cord can be injured in several different ways, including from a fall or while playing sports. The most common causes are car accidents. And alcohol often plays a part in spinal cord injuries a person who has a spinal cord injury loses all or some feeling

Pre-natal disabilities are acquired before birth. These may be due to diseases or substances that the mother has been exposed to during pregnancy, embryonic or fetal developmental accidents or genetic disorders some weeks before to up to four weeks after birth in humans. These can be due to prolonged lack of oxygen or obstruction of the respiratory tract, damage to the brain during birth (due to the accidental misuse of forceps, for example) or the baby being born prematurely. These may also be caused due to genetic disorders or accidents (Health Topic Monday 30, October, 2017).

Post-natal disabilities are gained after birth. They can be due to accidents, injuries, obesity, infection or other illnesses (Farlex, Retrieved 30 May, 2015).

According to Leahy, Fuzy & Grafe, (2013), injury-related disability is one that is caused from an accident, injury, or trauma. For example, motor vehicle accidents can result in a spinal cord injury and cause paraplegia (loss of function of the lower body or legs) or quadriplegia (loss of the ability to use both the upper and lower part of the body or limbs). A person may also lose a limb due to an accident or as a result of a disease process. For example, due to impaired circulation, a person who has diabetes may have a foot or leg amputated (removal of a limb). Diseases that are progressive (become worse) can also result in a person having a physical disability. For example, dystrophy is a progressive muscular disease that is inherited and which may become obvious at birth or later in life. People with muscular dystrophy have a gradual wasting away of their muscles and have difficulty with physically moving due to muscle twitching, stiffness, or atrophy (wasting away of muscle).

Musculoskeletal disorders such as arthritis can make a person become disabled. Arthritis means inflammation of the joints. A person with arthritis has stiffness, pain, and decreased mobility. Osteoarthritis, a common type of arthritis which mainly affects the elderly, occurs when there is a degeneration of the joints. It can make walking and use of one's hands difficult. Rheumatoid arthritis is a type of arthritis that can affect people of all ages and often progresses to the point where mobility is greatly impacted. Diseases that occur suddenly and unexpectedly such as a cerebrovascular accident or stroke can also cause physical disability. A cerebrovascular accident is when the blood and oxygen supply to the brain is impacted either due to a blocked artery or

hemorrhage in the brain. Some people who suffer from a stroke may become unable to use their hands, feet, to dress or feed themselves, or even to speak (Leahy, Fuzy & Grafe, (2013).

2.8 Assessing Students with Physical Impairment

When assessing student learning, it is important to gather multiple sources of information that directly measure or examine the target behavior, focus on quality of performance, utilize criterion-referenced rather than normative-referenced measurement, and to involve students in the development of assessments National Association for Sport and Physical Education (NASPE, 1995). Physical education teachers can incorporate a variety of assessments or one assessment format into their class instruction and program. According to Melograno (1997), these assessment techniques include:

- Teacher-directed assessments, which are achievement tests, observational inventories, and written tests. Teacher-directed assessments directly measure a student's motor skill, cognitive, affective, and psychomotor ability (Melograno, 1997).
- Peer assessments, which involve students acting individually or as a group to assess their peers. Peer assessments are advantageous as they help students to develop and administer an assessment, learn concern for others, a sense of responsibility, and learn how to give constructive feedback (Melograno, 1997).
- Self-assessments, which involve the students critically and validly assessing their own performance/ability based on personal goals, teacher-derived goals, and/or peer-standards (Melograno, 1997).
- Portfolio assessment -an ongoing feedback system that serves to document student progress and learning through a variety of work samples and examples of learning (Melograno, 1997)

CHAPTER THREE

3. METHODOLOGY

The general methods employed in order to achieve the objectives stated in the earlier chapter based on qualitative design. This design included triangulation of data collection by interviewing students with physical impairment and physical education teachers, focus group discussion and observation. The purpose was to get adequate information on the challenge and opportunities of students with physical impairment.

3.1. RESEARCH SITE AND SAMPLING METHOD

3.1.1. Research Site

The study was conducted at Diell Betigill and Menelik primary schools in Addis Ababa. The main reason for selecting these schools for the study the researcher was conducted a study in these schools previously and had good communication with most of the school community. Hence, the researcher believed that adequate information could be easily found out. Moreover, expenses like allowances and transport fees are minimized.

3.1.2. Participants

The target groups of the study werestudy are students with physical impairment, physical education teachers , special needs professional and principals of the school. It was expected that these groups can express themselves more than any one.

3.1.3. Population and Sampling technique

According to the information gained from the school principal, very few families of students with physical impairments have contacts with school principal and teachers. As explained earlier, students with physical impairment were also informants of the study. There were more than 50 students with physical impairment in Menelik primary school and more than 40 students were in Diell Betigill primary school. As a result, the selection procedure was purposive sampling techniques was used for the study. From the total of students at the school, there were 30 students selected from both schools.15 students (ten males and five females)2 physical education teachers, 2 special needs professionals and 1 principal from Menelik primary school. 15 students

(eight males and seven females) and 2 physical education professionals, 2 special need education professionals' and 1 principal from Diell Betigill primary school. As explained earlier, students with physical impairment were also informants of the study. In the case of selecting teachers purposive sampling was employed by the researcher to collect relevant information from them. Gall et al (2007) emphasis that purposeful sampling doesn't aim to achieve population validity but a deep understanding of selected individuals.

3.1.4. Instruments

According to *Patton (1990)*, qualitative method consists of three data collection in-depth open-ended interview, closed ended interview, direct observation and written document or sometimes group discussion. The methods used to collect information for the study it included multiple methods include interview, field observation, and focus grouped discussion. The interview was the main data collection instrument, but the field observation and focus group discussion were supplementary data collection instruments. Research questions on the students with physical impairment were prepared. Information is collected from the key respondent in these schools. Students with physical impaired, physical education teachers, principal and special needs education teachers. The main sources of information for qualitative analysis and focus group discussion and observation also were arranged. They asked because the researcher thinks that they have ability to answer the questions. For this study the researcher used qualitative designed to achieve the objective stated in earlier in chapter one. The design included observation, interview and group discussion. So then the information is designed through interpreted in qualitatively. To obtain adequate information multiple methods were used (*Patton; 1990*).

3.1.4.1 Observation

In the observation time the researcher prepare chalkiest then start observation, there were 3 observation was made one is the compound the other two was while the students on the filed doing health and physical education. According to *Hancock 1998* said that, "Because of the richness and credibility of information it can provide, observation being a desirable part of data gathering instrument "Field observation was the other data collecting instrument. The

observation was conducted during physical education lesson. It takes place while the teachers were teaching the practical part of the lesson in the play grounds also this observation is really helpful to write the recommendation. Also observation consists of detailed description of people's activity, actions, and the full range of interpersonal interaction and organizational processes that are part of observable human experience (*Patton, 1990*).

When observation is used in qualitative research, it usually consists of detailed notation of activities, events, and the contexts surrounding events and activities (*Best and Kahn, 2001; Creswell 2003*).

3.1.4.2 Interview

According to *Fontana and Frey (1994)*, interviews are used to gather information regarding an individual's experiences and knowledge; his or her opinion, beliefs, feelings, demographic data. Interview questions can be asked so as to determine past or current information as well as predictions for the future. The preferred method for data collection is to tape record the interview if the respondent is willing. Otherwise, the interviewer must keep notes contemporaneously and expand on them as necessary immediately following the interview while the information is still fresh in the interviewer's mind. The purpose of interview is, to allow as entering into the persons perspectives. Qualitative interviewing starts with the assumption that the positive side of others and able to make explicit (*Patton, 2002*). Qualitative evaluator seeks to understand the perception, feeling, and knowledge of people in program through in-depth-intensive interview. Interview is a very useful instrument to understand reasons why and how things happen and the way they are happening (*Patton, 2002*).

3.1.4.3 Focus Group Discussion

This discussion is between the principal of the school and the physical education teacher's also special needs professionals. The discussion was mainly focused on the responsibility of physical education teachers and school principals to explain the challenges and opportunities of teaching students with physical impairment towards on health and physical education. On the discussion all participants were gather together and made a discussion on the provided guide line which

contains five questions discussed points between five participants. The discussion was made twice the atmosphere of the situation were good.

3.1.5 Teachers

Physical education teachers are very important person to give the information for the researcher. They have lots of experiences on the field so that to develop the research and to put more information on challenges and opportunities of students with physical impairment.

3.1.6 Students with physical impairment

These groups of students are the main group because, they know more than anyone about the challenges and the opportunities that they get from physical education lesson. These groups of student were taken as one source of data to get important information's they are 10 students with wheelchair and 15 students who are using crunch 5 of the students use two wheelchair at a time. That means from Diell Betigill 6 students use wheelchair, 5 students use one crunch and 2 students use both hand crunch. In Menelik 4students use wheelchair,7 students use one crunch and 3 students use both hand crunch.

3.2 Data Collection Procedures

The study used qualitative method of data collection and this included personal interviews using an interview guide, observations and focused group discussion. Before administer the main instrument the researcher visited each schools. Then by consulting principals of each school to identify and facilitate the available or conducive time for participant, after that the researcher start the research from observation on the first day of the work the researcher observes the compound as well as the field while students do health and physical education. Then the researcher start interview students with physical impairment and physical education teachers after the interview, focus group discussion proceed between the principal special need professional and physical education teachers.

3.3 Methods of Data Analysis

The researcher used qualitative method with descriptive way of data analysis from interview, observation, and focused group discussions were used for data analysis. The data is

subcategories with the research questions. In this research analysis, obtained data from observation, interview, and focused group discussion are analyzed and interpreted in descriptive way. The researcher first read through all the gathered data carefully and got an idea about the whole text. Then the researcher began to group together to form categories. Having done this, various themes were selected and identified as challenges and opportunities of students with physical impairment on physical education lesson. Then the researcher grouped themes that relate to each other and minimized the categories and made the grouping simple. Finally, the researcher brought together the data belonging to each category in one group then, started analysis.

3.4 Ethical consideration

As far as ethical issue is concerned, the researcher is accordance with human rights principles and human dignity, that “all human beings are equal regardless of their diverse background” (Universal Declaration of Human Rights, 1948). In line with this declaration, the researcher collect data based on consent of the respondents and the information the data obtained was all be confidential only to the researcher and the participant. The researcher told the participant about the purpose of the research, the participant can out from the research any time when they feel it to out; the researcher must tell the participant briefly what the use of this research.

CHAPTER FOUR

4. FINDINGS

The main objective of this study is to investigate challenges and opportunities of students with physical impairment on physical education lesson. 15 students (ten males and five females) 2 physical education teachers, 2 especial needs education and 1 principal from Menelik primary school, 15 students (eight males and seven females) and 2 physical education teachers, 2 especial needs education and 1 principal from Diell Betigill primary school are selected . As it is mentioned in part three of the paper, interview, observation and focus group discussion are employed to gather data from various topics of the study.

The names of participants in this study are not used due to research ethics and in order to ensure confidentiality of participant's instead the researcher changed the names in to physical education teacher and students with physical impairment. The data collected through all these instruments are presented and discussed in this section; the findings are analyzed in relation to the major research questions of the study and theoretical frameworks.

4.1 Assessment of students with physical impairment

According to the study in Diell Betigill primary school the assessment method is kneel because of the attitude of the students with physical impairment towards physical education lesson is not good most of them thy don't like it. What the researcher found out on the roster also it support it the result of the students with disability shown incomplete or zero even if the methods are there physical education teachers does not use it.

“From Diell Betigill primary school one of male physical education teachers said that he always try his best all the time but the students with physical impairment are not willing to do physical education because they think that doing physical activity is not the much help full rather than they need to just sit and waited until the lesson is completed”.

“Other male physical education teacher from Diell Betigill primary school said that he tries to encourage the students with physical impairments by giving marks even if they don’t involve in the activities but the students without disability start complain and try not to do the activities so he stops doing that”

In Menelik primary school based on the assessment they have almost the same problem the assessment method are not like other subjects because of the attitude of the students with physical impairment towards physical education lesson is not good most of them they don’t like the subject. What the researcher found out on the roster are some changes than Diell Betigill primary school.

“One of female physical education teacher from Menelik primary school said that on assessment we don’t have assertive or modified equipment to involve students with physical impairment in the lesson our problem is that. The school should do something with accordance with government other with we can’t develop the subject or no progress if they don’t learn we just gave them incomplete or zero”

The teachers in both schools their answer are almost the same, teachers does not have any special assessment for the students with physical impairment. In accordance with the ideas of the teachers the school must modify the system if it is needed to include students with physical impairment in physical education lesson. Also lining with the question the physical education teachers mention that the challenges they face in both Diell Betigill and Menelik primary schools there are lack of materials, budgets to support the students to encourage students with physical disabilities. So in all there is no proper written document how to assess students with physical impairments also there is no training how to modify the instrument because of all these problems the students with physical impairment have no priority to involve them in assessment.

The researcher tries to observe the materials in Diell Betigill primary School while students engaged in physical education lesson. So the students with physical impairment just sit and

waited or rooming around until the lesson completed the reason for these problems is there are no modified materials that they can involve in;

“In Diell Betigill primary School one of male physical education teacher mentioned that I have tried to modify one of the equipment but modifying is takes me too much time, it also take time to make familiar the students with physical impairment with the equipment. Also I didn't get full supportive from the school. The students by themselves are not supportive, they have lack of confidence and they do not consider that they can do physical education equally students with non-physically impaired, these all things makes me frustrated.”

Another respondent female physical education teacher from Menelik primary school said that about modification of equipment:

“Absence of appropriate sport fields hindered me not to modify physical activities for students with physical impairment. I have tried many times to do my best in modification but my effort was zero because the students itself not motivated for what I did for them. Also the school environment is not encouraging to do that. In written form the school encourages to include the entire student in physical education class but when I go and ask the money to buy things accordance with formal providers of the school they are not cooperative. So I felt lake of interest then I stop modifying materials for students with physical impairment”

According to the teachers experience the researcher can conclude that the teachers are not motivated at all in the future because of the attitude of the students with disability also the school principal. So the absence of interesting / conducive environment in general was the main cause for the absence of modification of physical activities for students with physical impairment to do practical physical education classes.

The school principal of Diell Betigill primary school mentioned some points about modifying the equipment for students with physical impediment;

“Always every year we planned the best education for all of our students especially for students with physical impairment need to involve in physical education classes, but every year there is a problem to implement the planned schedule in the future we go on do our best.”

According to these points the researcher tried to ask the same question Menelik primary school principal about modification of equipment's;

“I know that we have to encourage the teacher or who modify the equipment for our students with physical impairment but the problem is who is going to take the responsibility to sign out the budget for it, some day we might be asked to bring the money or we will be in trouble even if I sign the paper to give out the money at the end of the year we might not get the materials because they might be damaged by the students or we might lose it, so on this condition we are going to be asked”

The researcher is really amazed in both schools, the rules are there to modify the equipment also the budget is there but no one is responsible to modify equipment's, as the researcher mentioned earlier about modification of the equipment the teachers are willing to do it, but the school does not give incentive to encourage the teachers. These problems lead the students with physical impairment away from all class students also the teachers are demoralized.

4.2 Involvement of the Students

Students with physical impairment almost all the time they do not like to involve in the physical education practical class, some of the students think that doing physical education is like waste of time rather they like to sit and talk to their friends.

One of the male students with physical impairment in grade 7 from Deill Betigel primary school told the researcher what he felt if he involved in physical education class:

“I felt that if I involve in physical education class with students without disabilities, I will not perform like them so these makes me felt embarrassed or ashamed in front of the class, also the other reason to make sit behind the equipment’s are not easy to use it for person like me, because of lots of reasons I don’t like to be in physical education class.”

Other two female students with physical impairment in grade 8 from Deill Betigill also told the researcher what they felt while they do physical education openly;

“We felt bad while we do physical activity our main problem is we are not good or active like students without physical disabilities, the other reasons are, we do not have proper physical education kit, enough food that we eat we think for our food than doing physical education, to do the activates we have to be strong at list by getting proper meal, so we need many thing to engaged in physical education activates, we think that even if we do physical education it won’t go through our life time we gone stop it somewhere else so doing it know it kills our energy and time so we don’t like to do physical activities.”

In Menelik primary school one of the students with physical impairment in grade 8he told the researcher good part of doing physical education activities:

“Am very active even if an student with physical impediment, when I involve in the activity my body is try to relax so I feel that I can do anything almost forgot my impairment, but sometimes my friends students with disability discourage me then I hesitate to involve they said are you gone be an athlete or what? At these times I frustrate also when I start thinking about doing physical education activities I know that I cannot do through my life so why I stress out myself instead I stayed with my friends.”

The awareness of the students towards physical education must be changed teacher, the school principals' also special needs department all in the school society involve in it to encourage the students with physical impairment to involve in physical education also those responsible persons try to explain very well the use of doing physical education activities also the disadvantage if they don't involve in the activity. In related with this interview one of male physical education teacher from Menelik primary school mentioned that;

“I am a physical education teacher but I do not push students with physical impairment to do physical education class because there is no modified material so students with physical impairment cannot involve in the activities; also the field is not convenient to move the wheelchair there are lots of stones, mud on it the school has to clean these things the field must be properly designed for the students. Also my teams they try to solve the problem we don't have encouragement from school.”

On these interview physical education teachers in Menelik primary school agreed that students with physical impairment do not have equal participation compared with students without disabilities. One female physical education teacher from Menelik primary school said that:

“I always try to involve in the activity students with physical impairment but the problem is they do not like doing activities so the participation of students with physical impairment is almost zero, I do not get any students unless students without disability also I try to ask the school principal but they told me that I have to teach the student who involve in the activity after that I stopped asking about it again.”

The students also asked the same interview question and one of the students with physical impairment in grade 6 from Diell Betigill he said that:

“I need to sit and watch while the students do physical activity because if I involve in it the student might teeth at me. Also I know

that I can't do exactly like students without disabilities so I rather sit and do nothing so my involvement in the activity is kneel."

According to the explanation of the teachers and students opinion even though the school set three (120 minutes) period per week if the students with physical impairment do not use those time regularly; that is waste of time for and killing their pernicious time.

One really touching stories what the makes researcher felt sad about one of the student in Menelik primary school from grade 7 said that about the frequency that he evolve in physical education class he said that:

"I do not participate in physical education activity always when it is physical education period I start going out from the school compound then I beg peoples for money, food and clothes so what I get I will share with my families I need food not doing physical education, this student like physical education period for his personal needs."

This is very touching story the students with physical impairment need first to full fill their needs not participating in the physical education class so they calculate the time and then stayed outside if its holiday or any other days to look for food, money, cloth or other needs. What the researcher underused on the observation time in both schools, the special needs department and the school together feed the student breakfast and lunch in a day that is encouraging; but the students need more in the class time they think how to get money for their dinner so these all problems pushed the students with physical impairment to snick out from the school compound during class time.

4.3 Problems that hinder students

Regarding this interview question the researcher asked physical education teachers from Diell Betigill primary school he said that:

"Problems that hinder students with physical impairment to participate in physical education classes first of all we don't have modified materials, the school compound is not safe, to go to the

field it is not easy it has ups and down so students with physical impairment cannot go to the field, the students do not have physical education kit, I try to buy for them by myself once but no encouragement from the school then I stopped doing that in general there are lots of problems we don't have enough time to take about it."

On behave of the students with physical impairment from Menelik primary school grade 7 mention some problems that hinder students with physical impairment to participate in physical education classes she said that:

"If we involve in the activity we are happy but before that we need so many things to stand for our self we have to answer our need first, then the school also must facilitate modified materials like on our wheelchair we can through the bolls if the neat is going abet down because we site on the wheelchair, the other thing the subject does not help us for our life, it is better if we sit and save our energy because we might not get any food."

The other point that the student with physical impairment from both schools mentioned that doing *"physical education is not go throughout life so why we waste our time"* because of this thinking they don't give attention for the subject. In general there are lots of things that hinder the student with physical impairment to participate in the activity like lack of adapted equipment, field is not comfortable there are so many problems are mentioned but the school needs do something cooperating with special needs department and with physical education teachers.

4.4 Teaching method of health and physical education

The head of physical education department in Menelik primary school mentioned that:

"The main problem to implement physical education class is the teaching method, the teachers are using the old fashion, so as a school we try to give them explanation but we did not work on the problem effectively also the government should give training on

this issue. Then if the teacher does not know how to handle or integrate students with physical impairment with students without disability in the lesson the students with physical impairment left out, first of all the teaching method must be modified.”

The researcher also ask the physical education teachers from Diell Betigill and Menelik primary school whether they took developmental training to help students with physical impairment. One of physical education teachers from Menelik primary school said that:

“I am one of physical education teacher, but I don’t know how to support students with physical impairment in my class, am so happy if the school give us training on the issues. What I remainder three years back the school provide us to share experience with Sebeta blind school but it is not enough we have to have updated knowledge, us a department we ask the school to update us but we do not get any respond.”

The researcher asks one of female student with physical impairment in Diell Betigill primary school from grade 6 about the methodology that physical education teacher used to teach physical education her response was like these;

“Am always confused about physical education class the teachers are just call out students without physical disability so at that time if we go with them also we just sit because the teacher does not have any modified materials so he or she cannot do anything for us, if I do not do anything I just going around the school compound talking with a friend sometimes I go library to read or to do my homework but always at physical education class I fill bored.”

Physical education teacher in both schools agrees that if there and adapted equipment all students at the same time involve in physical education activities. The researcher asks the principal of Diell Betigill primary school he side that:

“As a school we can do what is best for our students but we have lack of financial and person who have professional development experience to train our physical education teachers how to teach physical education class for students with physical impairment , we try many thing us a school but even we try to modify easy materials but the attitude of the students also not supportive they do not like to participate in the activity, anyway we have lots of problem but we don’t have enough time to discuss we try our best all the time but no improvement.”

According to both schools physical education teachers, principal and students with physical impairment opinion there are lots of problems hindering them to shine out on this subject, but still they are stragglng to include all the students.

4.5 Opportunities that student can get

From the point of researcher physical education can provide significant benefits for children in all of the developmental stages of life. Based on this interview question one of student in Menelik primary school from grade 7 said about the benefit of doing physical education;

“I know that doing physical education is develop strengthen on my physical appearance also feeling happy, also I fill relax and my day is gone be nice but even I know all this I cannot do physical education just I hate the subject.”

The researcher felt sad about the opinion of the students with physical impairment towards to physical education class so the schools need to fight to solve all the problems. From Diell Betigill primary school grade 7 students with physical impairment he said about the benefit of involving in physical education class:

“I know that doing physical education activities are best for my life but I do not want to do it, I have lots or reason that I

mentioned earlier why I do not do physical education activities may be if the need of my self is full I might be involve in it.”

Two male physical education teachers from Diell Betigill primary school try to explain benefit of doing physical education activities for all of the students but mostly for students with physical impairment they said that:

“the benefits of involving in physical education class, it gives social interaction benefit, self-confidence, mental thinking developed, our social interaction increase, we think positively there are lots of good sides, but without modification of materials we as a teacher we cannot change or bring these all benefits for students with physical impairment.”

Two male physical education teachers from Menelik primary school try to explain about the benefit of doing physical education for students with physical impaired:

“We can explain how physical education helps students with physical impaired but if the students are not participate in the activity how they get the benefit that they get from the subject. No point if we know the benefits the attitude of the students with physical impairment should be changed, they felt ashamed to participate in the activity.”

4.6 Observation of the researcher

The researcher made observation on Menelik primary school compound, class observation during physical education time, interaction among students with physical impairment and students without physical impairment.

In Menelik primary school the compound was not suitable for waking spatially for students with physical impairment. Also problem was shown on one of grade 8 students with physical impairment to inter the class he need to wait someone to puss him so the school needs to plane to solve the problem the ramps are there but the problem to reach the ramp that is the difficult part.

Even to go canteen the students with physical impairment straggle because there are lots of big stones are on the way to the cafe. The researcher tries to observe the teaching and learning process of physical education practical session, seven grade physical education was on Wednesday seventh period students with physical impairment stay out from the lesson. The researcher try to follow students with physical impairment to know what they going to do as the teachers and students with physical impairment mentioned that earlier the students with physical impairment just sit somewhere to take with their friends some of them went out of the school to look for money or foods.

In Diell Betigill primary school the compound was nice but the problem was the iterance to the field, there are lots of ups and down, stones are everywhere because of these obstacles, students with physical impairment won't go to the field thy stay in the class or go with friend to talk. The researcher observes the toilet also it was really nice the school modified the sit so students with physical impairment can use it easily. The class observation the researcher could not get students with physical impairment in physical education practical class. Students with physical impairment are not interested in physical education class because there is no modified equipment. The place where students with physical impairment eat their lunch was perfect.

4.7 Observation comparing between the schools

Diell Betigill primary school compound was much better than Menelik but the problem was the field, the field was not comfortable to get in, there are lots of ups and down. The researcher observes the equipment's suitability of Diell Betigill and Menelik primary school. In Menelik and Diell Betigill primary schools there was big problem based on the modification of game and equipment's. Menelik primary school has one traditional game called Gebeta, one of male physical education teacher from Menelik primary school said about Gebeta game like these:

“We have one traditional game called Gebeta, but the students with physical impaired do not like to play it, because the game is always the same that makes the students with physical impairment felt bored they need something new game modified one even am fade up of teaching them the same thing with them.”

The relationship between student's with-out disability and students with physical impairment in Diell Betigill also in Menelik primary schools the interaction was so nice. Physical education teachers are also perfect to help students with physical impairment. The teachers try different thing to help the students in Diell Betigill school one of the physical education teacher bought physical education kits but after some years he stopped helping because, he does not get any additional support from the school.

4.8 Focus Group Discussion

For the discussion session the researcher between 2 physical education teachers, 1 special need professional and 1 principal, the researcher choose these groups to get reach information from them to get real information the researcher develop these discussion points. Increasing involvement of students with physical impairment in physical education class, improving teaching and learning process, change the curriculum and encouragement of the school to modify the equipment;

Based on the above discussion points the teachers and school principals put down some points. To improve the involvement of students in physical education class according to physical education teachers they mentioned that the teachers also give more attention to ward students with physical impairment. The principal try to facilitate what the teacher need to solve the problem. Also for the second discussion to improve teaching and learning process mentioned that the equipment must be ready for students with physical impairment also the school agreed that at the beginning of the school year giving much training for the teachers to develop awareness of the teachers and students with physical impairment also students with-out disability. On the dissection physical education teachers, special need teacher and principal of the school stated that to change the curriculum the school and the teacher must work together based on the needs of the students with physical impairment. This helps the student to involve in the activity also they develop their confidence. For the last discussion the schools agree that when the teacher develops equipment the school gone pay just to motivate and also the school gone facilitate the material based on then need of physical education teachers.

So according to the discussion the researcher enjoyed there are lots of argument was happened but finally they agreed on the above points. So most of the time the school accept what the

teacher mentioned the researcher find out that the problem of teaching physical education was hard specially students with physical impairment most of the time the problem was on them because they do not want to participate in the activity.

For the discussion session the researcher used between 2 physical education teachers, 2 special need professionals and 1 principal , the researcher choose these groups to get reach and real information on; Increasing involvement of students with physical impairment in physical education class, improving teaching and learning process, change the curriculum, encouragement of the school to modify the equipment

In the discussion the groups are mentioned the involvement of students with physical impairment in physical education class the teachers must encourage students, motivate them by giving a bonus mark on the theory parts of the lesson. To improve the teaching and learning process the group mentioned that physical education teachers must breakdown the activity in simplest way to include all types of students, so the teachers agree on the points but they mentioned that they need help from special needs education teachers. About the curriculum the school principal mentioned that;

“The school cannot change the curriculum completely but, we can modify it based on the needs of our students other with if the teacher have the knowledge how to modify based on their subject they are the most welcome if there is contradiction between the school and the government body we are happy because all of us work for the benefits of our student.”

The school encourages the physical education teachers to modify the equipment to apply physical education lesson, but in other hands the teacher complained that they do not get any encouragement from the school. In the discussion the school principal promised that to encourage the teachers by giving incentive or hiring professional person who gone modify the equipment's. The teachers are so happy on the discussion also from especial needs department they promised that in any condition they need to support physical education teachers on developing or on modifying the equipment's.

4.9 Discussions

In this part of discussion, the data gathered from different topics of the study are discussed by relating these various sets of data. The secondary data obtained from literature review are also included to the discussion. The data collected through interview observation and focus group discussion which the discussions are made. The data secured through other instruments and through the review of related literature are administered to gate more ideas reflected from students with physical impairment. Thus, the data presented in each important part of the interviews are followed by wide discussions, and some related inferences reflecting the researcher's insight of the ideas. The discussions focus to address the basic research questions stated in the introductory part of this research paper.

The students with physical impairment face so many challenges to participate in physical education activity so in their life they might not be involve in the activity but in developed country the teachers have awareness so they include the student in all activity because they have access to develop the material based on the need of the child but in developing country still lots of problems was shown. The attitude of the teacher, school principal, and family in general all of the society needs to change the negative attitude towards the student with physical impairment.

The knowledge of competition by assessment is zero result according to the researcher finding in both Menelik and Diell Betigill primary schools they mentioned different reasons like curriculum, no modified material, the attitude of the student is negative towards physical education.

The other problem or challenges to including children with physical impairment in a physical education program. Parents may be apprehensive about allowing their child with special needs to participate in physical education activities. Studies have shown that special education students are less likely to enroll in physical education, and consequently, further studies have found that special education students are more at risk of developing childhood physical problems than their general education peers. Yet, many resources have begun to make it easier to include children with physical impairment in physical education endeavors.

Physical education teachers simply need to determine the abilities of students with special needs, and the measures that may need implementing to support their participation in sports and fitness. Some children with difficulties may need DAPE (developmental adapted physical education) to help promote physical fitness, fundamental motor skills, and more, whereas others will simply need the support and encouragement to participate in regular physical education activities.

According to *Houston-Wilson, 2002* assessment have to be in steps embedded in the curriculum, Data should be taken each physical education session, No ceiling should be placed on student learning, and all students should be expected to improve in their progress toward the objective. Authentic assessment includes rubrics, task analysis, functional assessment, portfolios, and teacher observation. A student with physical impairment does not automatically qualify for adapted physical education services. There must be a delay identified based on data collected in at least one of the three domains of

Physical education: effective, psychomotor, or cognitive. As a recommendation by the Society of Health and Physical Education America, this delay is generally defined as a deficit. Standard deviations or greater below the mean or a discrepancy of two or more years below their Peer.

According to the researcher opinion exercise can provide significant benefits for children in all of the developmental stages of life. It only makes sense, then, that regular participation in physical education classes would also promote positive advancements in students with special needs. Research has shown that physical education programs can do a great deal to improve the lifestyle of children with special needs; they can increase competency in gross motor skills, help to control obesity, improve self-esteem and social skills, encourage an active lifestyle, and maintain motivation in various areas of life.

Health and physical education is essential for quality of life reasons and as a public health promoter. In people with physical impairment health and physical education has an amplified importance based on higher rates of chronic diseases which health and physical education can influence. Above those metabolic advantages individuals with physical impairment can further profit from health and physical education:

Health and physical education also has amplified importance for cognitive, emotional and social difficulties. Psychological benefits such as enhanced self-perception through successful Health and physical education experiences. Health and physical education can reduce stress, pain, and depression.

Social contact: Health and physical education can reduce the stigmatization process and negative stereotypes. Health and physical education can contribute to improve social status: non-disabled people see physically active individuals with disabilities more favorably than non-active people. Social benefits as the nature of many sport activities leads to increased social integration, bonding and friendship

Fun: Health and physical education leads to mood benefits. Enjoyment through social interaction of both fitness staff and other participants

Scientific research has demonstrated repeatedly that physical education can enhance academic performance and cognitive function. However, for children with special needs, it's valuable for so many reasons, from providing an opportunity to build collaborative and social skills, to teaching individuals how to focus on specific goals and overcome obstacles. Parents and teachers are encouraged to find creative ways to implement reasonable accommodations to ensure that all students with special needs can be successful in physical education and the school environment.

An increase of physical activity is commonly recommended to those with physical disability, but it is necessary to distinguish competitive sport from fitness programs, remedial gymnastics and active recreation. Potential benefits of enhanced activity are reviewed. Likely psychological gains include an improvement of mood-state, with a reduction of anxiety and depression, an increase of self-esteem and feelings of greater self-efficacy. Sociological gains include new experiences, new friendships, and a countering of stigmatization. Perceived health is improved, and in a more long-term perspective there is a reduced risk of many chronic diseases. Finally, there is a greater likelihood of employment, with less absenteeism and enhanced productivity. Both the health and the industrial benefits have a potential to yield cost savings that could make an important contribution toward the expense of suitably adapted physical activity programs. It is concluded that the physically disabled should be encouraged to engage in physical activity,

although further large-scale longitudinal studies are needed to determine the optimal type of program for such individuals.

A scientific study into disability groups has found that participation in physical activity and sport leads to improved levels of well-being and physical health. Children who have a diagnosed intellectual disability may have additional physical disabilities which can result in below age-level performance in typical motor skills. Regular involvement in physical education and sport can help them to develop the skills they need.

When encouraged to participate in frequent fitness measures, many students with special needs see improvements in everything from their hand-eye coordination and flexibility, to their muscle strength, endurance, and even cardiovascular efficiency. These are all simply the natural benefits of exercise a development of better motor skills and enhanced physical health that helps individuals to fight back against problems such as obesity, and the health complications that follow.

Regular exposure to sports through physical education classes isn't only good for a child's body it's beneficial to their mind, too. Physical activity improves general mood and wellness in psychiatric patients suffering from anxiety and depressive disorders. What's more, regular fitness links to improvements in self-esteem, social awareness, and self-confidence — all essential for empowering the lives of young people with special needs.

Providing a physical outlet may help students reduce or cope with anxiety, stress and depression while interaction and involvement with other students will help to give children a sense of accomplishment and confidence. For students with special needs, developing a sense of self-esteem can be particularly important, as they may often feel isolated and removed from the group. These children need their physical education teachers to involve them in environments where they can feel as though they're successfully contributing to a group (can feel successful or are successful), and their abilities in other areas will improve according to (as a result of) their positive self-image and confidence.

Finally, the hands-on nature of physical education leads to cognitive improvements in children with special needs, allowing them to access skills that they couldn't challenge within a

traditional classroom setting. The structure of sport – which comes with a set of rules and organization, can be a learning tool that helps children to practice self-regulation and enhance their decision making skills. On top of that, children with special needs can learn to focus on specific goals, and work on their verbal communication by interacting with peers through sport.

Physical education is about a lot more than simply learning how to engage in a particular sport — it teaches children a range of skills, from how to work as a team, to how to solve problems, increase attention span, and focus on task-based behavior. Eventually, those skills can transfer into other classroom settings too, so that students with special needs have a greater ability to learn and engage with their peers outside of physical education (Rockville Pike, Bethesda MD, 20894).

According to *Langseth and Aaslid 2012* “Teachers point to a high number of students in the classroom and little time for planning as limiting factors the majority of respondents in our survey agree that continuous assessment improves the possibility to differentiate instruction in order to address the needs of individual students.

Standardized tests are often used, but many teachers report that they are frustrated about the way they are used to comparing and rank students. Our study shows teachers in this subject area are less willing to agree that continuous assessment is an integrated part of their teaching. Teachers in physical education tend to demand national regulations for assessment to a greater extent than teachers in other subject areas”

According to (*Cosgrave, 2013*) based on the assessment also mentioned similar findings. “The use of assessment strategies was a positive experience for both the teachers and the children in their classes by providing a structure that made learning explicit and allowed learning to be acknowledged.

Teachers’ perspectives on assessment changed dramatically as the value of assessment in enhancing the learning process was recognized. As a result of using assessment strategies, the teachers believed that the children learned more in their physical education classes and that they themselves became better teachers of physical education.

Assessment helped focus both the teacher and the children on the specific learning intentions of the lesson, provided feedback on progress to the teacher and the learners and supported future planning. This could provide evidence of the link between assessment practices and children's learning and support the development of resource materials including assessment samples in physical education" but even if they mention these all points the result is negative because of various reasons. While the student researcher compare with current situation D. Ni' Chro'ini'n and Cosgrave are work very hard to solve the problem.

The time consume for physical education per week must be 120 minutes according to *Directorate of School Education (DSE), 1993*) This situation is exacerbated in most countries because PE is never examined and therefore, teachers prefer using PE time to teach the "academic" subjects. Most schools have PE slotted on the timetable but hardly implement it. Unfortunately, while there have been many education reforms since the late 1990s these reforms have impacted negatively on physical education because physical education time allocation has continued to decrease in around 17% of countries (*Hardman, 2008*). This is happening despite "strong efforts and international advocacy supported by extensive economical, medical, scientific, social and cultural support for sufficient PE programs and initiatives in some countries to increase physical education time to 120 minutes per week." According to the researcher finding the time allotment in both Diell Betigill and Menelik primary schools also used the same time management like other findings so this area was appositive part of the schools.

Based on the involvement of the students according to Back Up Inclusive Education Toolkit April 2013 the students accept involving in physical education it make them benefited many things for example in tool kit one of students said

"My physical education teacher made me do everything – they adapted everything. I'm not into sport – I didn't have a choice! My teacher adapted it all so I had to take part. She was quite strict so she do not want me sitting and do nothing am always in the activity." "In physical education if they were doing stretches, they would stretch my arms... and on the field we do team games like rounder's and relay racing... and cricket. I use a tennis racket because it's easy to use."

According to the researcher the involvement of the students with physical impairment in physical education in Diell Betigill and Menelik primary school shows zero so it has big different shown between developed and developing countries based on physical education class.

According to the researcher finding there are lots of challenges that hinder students with physical impairment to involve in physical education activity such as physical environment of the schools inappropriate field, awareness of the teacher, lack of adequate equipment *Berhanie Asrat Bekele Sports and Health 2017* stated that “even though the interest of the students with physical impairment (SWD) to participate in physical education practical class was high, the level of participation was inversely related. The reasons for the low participation in the physical education practical class were due to lack of comfortable school sport fields/facilities, equipment, lack of interest from their teachers to participate or include them, the level of difficulty they have and lack of willingness by their peers to do the physical activities with and lack of support from the family, lack of interest from their physical education teachers to participate them in practical class and in some case even in physical education class”.

The World Health Organization (WHO) explain some of the barriers or hindering students with physically impaired to participate in physical education

- a physical environment that is not accessible,
- lack of relevant assistive technology (assistive, adaptive, and rehabilitative devices),
- negative attitudes of people towards disability,
- Services, systems and policies that are either nonexistent or that hinder the involvement of all people with a health condition in all areas of life.

So according to the above experience the finding of the researcher was the same therefore still problem are shown on physical education activities. According to the researcher the curriculum was big problem to apply unless the government or the school collaborate with the government to change the teaching system of physical education, also there should be adaptive material to make easier the teaching and learning process of students with physical impairment. The *Individuals with Disabilities Education Improvement Act (IDEIA 2008)* continues to include in the curriculum content area of physical education. All students with physical impairments are

required to participate in physical education instruction. A specially designed physical education service for a student with physical impairment was referred to as Adapted Physical Education.

5. CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter consists of summary, conclusions and recommendations of the research results. The study was intended to investigate the Experiences and Opportunities of Students with Physical Impairment participation Diell Betigill and Menelik primary school. Therefore, to reach at the purpose of the study, three types of data gathering instruments was taken group discussion, interview and observation were used. The data which was gathered through the above mentioned gathered data analyzed and discussed in chapter four. Based on the analysis and discussion, the following summary, conclusions and recommendations were made.

5.1 SUMMARY

The main purpose of the current study was to investigate Challenges and Opportunities of Students with Physical Impairment participation in health and physical education practical classes in Diell Betigill and Menelik primary school. The data sources of the study used purposive techniques. According to Gall 2007he emphasized that purposeful sampling does not aim to achieve population validity but a deep understanding of selected individuals students with physical impairment and physical education teachers were selected by using purposive technique. The data was collected from data sources by using three tools observation, interview and discussion. So collecting these all data used the researcher to conclude and recommend for further investigation.

5.2. Conclusions

Health and physical education is one of the most essential subjects for students with physical impairment also for students without disability. This subject help the student's to develop their social skill, mental ability, physical strength especially for students with physical impairment health and physical education subject is like back boon. Most of the school administrations do not give special attention and have no enough knowledge about benefits of including children with physical impairment in health and physical education practical class. Positive attitude of teachers can enhance the achievement of any new strategy in any educational system. The

finding show that back ground of disabled students in performing activates is poor. The students by themselves, also do not need to involve in the activity because they ashamed with their impairment. So the study pointed out that there was shortage of important equipment and facilities to include students with physical impairment in health and physical education practical class. Motivations and support of family for their children with physical impairment was found low in this study. Psychological and social factors are also challenges to achieve the general objective of health and physical education. Most of these students reported that they feel low self-esteem, frustration, shy, isolation, etc...which in turn affect their whole life and academic performance. Beside these the main issue was lack of proper equipment to use in the activity, so if there is no modified material the teachers cannot help students with physical impairment.

According to researcher conclusion there are lots of things to mention. Lack of experience, awareness how to teach, and the teacher are panic when they asked to teach students with physical impairment, lack of confidence on students with physical impairment to participate in the activity then they move to low self-stem. The student also conclude most of the school administrations and physical education teachers do not give attention for students with physical impairment also they do not have clear knowledge about benefits of including students with physical impairment in physical education class.

According to the students with physical impairment and also the physical education teachers, the awareness of parents towards on physical education is very limited so they don't encourage their child to involve in different activities. It is possible to conclude from the above findings in most schools students with physical impairment are deprived from physical education practical class. Therefore, it is possible to say that most of the students with disabilities are not advantageous from health and physical education lesson currently.

5.3 Recommendations

According to the findings of study, the researcher forwarded the following recommendations to help physical education teachers, school directors, curriculum experts, students with physical

impairment and all concerned bodies in the process to avoid the problem and the challenge identified above:

5.3.1 Measures to be taken at school level

The school must change the awareness of the teachers also the students with physical impairment on physical education activity also briefly forward the benefit of doing different activities.

The school must make ready important equipment to teach students with physically impaired so teachers also motivated if there were proper materials to teach.

The school must have expectation from the teachers to teach the students with physical impairment so the school must have a rule for physical education teacher to modify the material to make teaching process easier.

The school must bring professionals who can adapt material to encourage the teachers also to facilitate proper filed, class room to make easier teaching and learning process.

The school society must understand the use of physical education most of the time other subject teachers think that physical education is like supplementary subject. So they have to change their thinking to encourage students with physical impairment for motivation.

The school and parents must work together to change the history of students with physical impairment attitude towards physical education class.

The schools should organize disability sport competitions as they prepare for non-disabled ones, by doing this, they can show the ability of disabled students to change the attitude of the student.

The school should provide resources and fulfill the necessary equipment's especially for students with physical impairment. Purchase physical activity equipment, including assessment tools, providing equipment that enhances physical activities gives educators a wider range of choices for lesson plans during physical education class.

The school must organize well-designed teaching aids accordance with the teachers based on the need of students with physical impairment. Provide teachers with appropriate training and supervision.

Provide professional development for teachers. Educators that are specifically trained in physical education still need continuing education to keep them up-to-date on everything from new, innovative physical education lesson plans.

Create a physically accessible environment that is not mobility-limited. Assist the teacher in collecting data and monitoring student progress. Assist physical educator with the implementation of students' goals and objectives. Invite guest speakers with disabilities to discuss their experiences

5.3.2 Measures to be taken by teachers

The teacher must encourage and motivate students with physical impairment in their practical class to bust up confidence of students with physical impairment.

The teachers must get training how to modify equipment to have awareness of the subject matter what to teach how to teach students with physical impairment.

Teachers should ask the school to give them trainings about how to modify the equipment and teach students with physical impairment.

Teachers can attend professional development programs run by state sporting associations in basic coaching.

The learning environment needs some sort of modification and adaptation. Thus, teachers should work out the necessary modification and adaptation of educational materials, methodology, facilities, equipment and environmental conditions in order to address specific educational needs of students with physical impairment.

Physical education teachers must be flexible with the schedule; Students may arrive late or have to leave before the class is over due to adapted transportation services.

Make sure that students with physical impairment are always included with others when forming groups.

When speaking to a person who uses a wheelchair for a long period of time, avoid the need for them to strain in order to look up at you by sitting beside or leaning toward them during the conversation, in order for them to avoid experiencing fatigue and/or pain.

To reduce fatigue of students with physical impairment, it may be helpful to limit the number of exams on a given day or week.

The quality of educational services for students with physical impairment must be at least equal that of services provided to students without disabilities.

Teachers of students with physical impairment must be competent to provide instruction to individuals with disabilities.

Provide all students with opportunities for positive learning and interpersonal experiences

Provide support, suggestions, and feedback regarding the strategies and instruction that have been implemented

Health and physical education textbooks are found not suitable for students with physical impairment. They need revision so as to incorporate more suitable activities and methodologies that promote communication and participation.

5.3.3 Measures to be taken by students

Students with physical impairment must avoid fear and develop their confidence to participate equally with students without disabilities.

Students without disabilities should have positive attitude towards students with physical impairment

Students with physical impairment always they have to think that doing physical education is helpful through their life time.

Parents of students with physical impairment must encourage and support them to involve in physical education lesson.

References

- Abass, A.O (1999). Motor Learning in Physical activity in Essentials of Human Kinetics and Health)
- Adapted Physical Education National Standards (APENS), 2008,
- ASC, (2018), Australian Sport Commission, <https://www.ausport.gov.au/>
- Bandura, A. (1977). Social learning theory; NJ: Prentice Hall.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. NJ: Prentice Hall.
- Barbara and Elizabeth Wistrom, updated: 7/12/2012; Types of Physical Activities: Modifications for Physically Disabled Students <https://www.brighthubeducation.com/special-ed-physical-disabilities/50765-modified-activities-for-students-with-physical-disabilities/>
- Best, J. W., & Kahn, J. V. (2001). Research in education (8th ed.). Needham Heights, MA: Allyn & Bacon
- Berhanie Asrat Bekele Lecturer, Bahir Dar University, Sports and Health 2017, Ethiopia
International Journal of Physical Education ,Sports and Health 2017;4(2): 94-99
- Cain, E. (2002). Schools for All: Including Disabled Children in Education. Save the Children, London. www.eenet.org.uk/resources/docs/schools_for_all.pdf Accessed: 24/10/2013
- Cambridge Academic Content Dictionary © Cambridge University Press
- Carlson. T. B. (1995). A study of the relationship between the student's attitudes and student expectations towards physical education; American Education Research Association, San Fransisco, April
- Creswell, John W. (2003). Research design qualitative, quantitative and mixed methods Approach (2nd Ed). Thousand Oaks, California Sage.

Centers of Disease Control and Prevention, updated: March 172016) [National Center on Birth Defects and Developmental Disabilities](#), [Centers for Disease Control and Prevention](#); 1600 Clifton Road Atlanta, GA 30329-4027 USA

Commonwealth of Australia (1992); Physical and sport education: a report by the Senate Standing Committee on Environment, Recreation and the Arts; Canberra: Commonwealth of Australia

Deborah A. and Bennet, J.1993. Curriculum and instruction: secondary school education Experience.

De Corby, K., Halas, J., Dixon, S., Wintrup, L. & Janzen, H. (2005), Classroom teachers and the challenges of delivering quality physical education

Directorate of School Education (1993) (DSE) Physical and sport education for Victorian schools-The Moneghetti report Melbourne: Directorate of School Education <http://www.education.vic.gov.au/studentlearning> by Michael N. Wanyama January 2011.

Déirdre Ní Chróinín & Caitríona Cosgrave (2013) Implementing formative assessment in primary physical education: teacher perspectives and experiences, Physical Education and Sport Pedagogy,

Disabled Rights: American Policy and the Fight for Equality by Jacqueline VaughnSwitzer (Washington, D.C., Georgetown University Press, 2003).

Fontana, A, and Frey, J.H. (1994). Interviewing; The art of science In N.K.Denzin and Y.S. Lincoln (Eds) Handbook of qualitative research

Gill, D.L., Gross, J.B., & Huddleston, S. (1985). Participation motivation in youth sports International Journal of Sport Psychology; 14, 1–14

Gomez-Pinilla F., Hillman C. (2013), The influence of exercise on cognitive abilities, [[PMC free article](#)] [[PubMed](#)] [[Cross Ref](#)]

Great Schools Partnership, 2014, | 482 Congress Street, Suite 500 | Portland, ME 04101 | 207.773.0505 | greatschoolspartnership.org

Gut, D. M. (2011). Integrating 21st century skills into the curriculum In G. Wan & D. M. Gut (Eds.), *Bringing schools into the 21st century* (Vol. 13, pp. 137–157). Dordrecht: Springer Netherlands.

Handicaps welfare association; 2012, *Types of Physical Disabilities*,

<http://hwa.org.sg/news/general-information-on-physical-disabilities/>

Hardman, (2008) Ken HARDMAN

Institute.of.Sport.and.Exercise.Science,.University.of.Worcester,.UK

Patton, M, Q (1990). *Qualitative evaluation and research method* (2nd Ed.); Thousand oaks, CA: Sage.

Patton, Michael Quinn (2002). *Qualitative evaluation methods* (3rded) .Thousand oaks, CA: Sage.

Henry, M. (1993); *School cultures: Universes of meaning in private schools*. NJ: Ablex Publishing Corporation.

http://en.wikipedia.org/wiki/Physical_disability

<https://adata.org/faq/what-definition-disability-under-ada>

<https://ferris.edu/HTMLS/administration/president/DiversityOffice/Definitions.htm>

<http://www.cyh.com/HealthTopics/HealthTopicDetails.aspx>, HealthTopicDetails.aspx Monday
30 October 2017

IDEA (Individuals with Disabilities Education Act), 2004, Revised: 10/19/16.

Individuals with Disabilities Education Improvement Act (IDEIA 2008)

Jaarsma EA, Barriers to and facilitators of sports participation for people with physical disabilities: A systematic review. 2014. *Scandinavian Journal of Medicine & Science in Sports*, 24 (6), 871-881

Jeffrey Martin, June, 2013, Benefits and barriers to physical activity for individuals with disabilities: A social-relational model of disability perspective, Wayne State University
<https://www.researchgate.net/publication/239940663>

Journal of Occupational Science, November 1999, Vol 6, No 3, pp 102-110. Environmental Factors Affecting the Occupations of Children with Physical Disabilities

Karen, Wang, (2013) November 12, Ways to Include a Student with Special Needs in Physical Education; <http://www.friendshipcircle.org/blog/2013/11/12/7-ways-to-include-a-student-with-special-needs-in-physical-education/>

Kate A. Jenkinson (2010); Barriers to Providing Physical Education and Physical Activity, Volume 35, RMIT University, kate.jenkinson@rmit.edu.au

Kobilo T., Liu Q.-R., Gandhi K., Mughal M., Shaham Y., van Praag H. (2011); Running is the neurogenic and neurotrophic stimulus in environmental enrichment. Learn. Mem. 18, 605–609. 10.1101/lm.2283011 [[PMC free article](#)] [[PubMed](#)] [[Cross Ref](#)]

Leahy, W., Fuzy, J., & Grafe, J. (2013), Providing home care: A textbook for home health aides (4th Ed.). Albuquerque, NM: Hartman.

Lisa Roundy; 2003-2018 Study.com; Chronic Illness & Physical Disabilities: Effects on Human Development Related Study Materials

Lieberman/Houston-Wilson 2002 Adapted Physical Activity Quarterly Jul; 19 (3):364-377

Martin JJ. Benefits and barriers to physical activity for individuals with disabilities: a social-relational model of disability perspective. Disability and Rehabilitation 2013; Researchgate

Melograno, (1997) Assessment in Physical Education Paper Starter

MoE (Ministry of Education), 2006. Special Needs Education

Morgan, P. J. & Hansen, V. (2008) Classroom teachers' perceptions of the impact of barriers to teaching physical education on the quality of physical education programs Research Quarterly for Exercise and Sport, 79(4), 506-516.

[National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention](#); updated: March 17, 2016

National Center for Biotechnology Information, U.S. National Library of Medicine 8600
Rockville Pike, Bethesda MD, 20894 USA

Nazarov, Z, Lee, C. G. (2012). Disability Statistics from the Current Population Survey (CPS),
Ithaca, NY: Cornell University Rehabilitation Research and Training Center on
Disability Demographics and Statistics (StatsRRTC). Retrieved March 2, 2015

Patton, M, Q (1990). Qualitative evaluation and research method (2nd Ed.); Thousand oaks, CA:
Sage.

Podstawski Robert, Zwolinska Danuta, Nowosielska-Swadzba Danuta., uploaded by Robert
Podstawski on 09 October, 2015, Problems of safety and risk in physical education.

Rovegno, I. (1994). Teaching within a curricular zone of safety: School culture and the situated
nature of student teachers' pedagogical content knowledge. Research Quarterly in
Exercise and Sport, 65, 269-279.

Smith, B. (1994). Marginalization in a middle school physical education class; unpublished
master's thesis, Washington State University, WA

SPARK; October 27th, 2016. Including Children with Special Needs Physical Education Plans
Greenville, WI 54942 <https://sparkpe.org/blog/including-children-with-special-needs-physical-education-plans/>

SPARK, November 15th, 2016. The Benefits of Physical Education for Children with Special
Needs spark@sparkpe.org, Greenville, WI 54942

Surgeon, G. 1996, Physical activity and health U.S. Department of Health and Human Services
The Disability Rights Movement: From Charity to Confrontation by Doris Zames Fleischer and
Freida Zames (Philadelphia: Temple University Press, 2001

"The free dictionary by Farlex", Retrieved 30 May 2015

UNESCO 2009 ED-2009/WS/31 by Janet Quinn universal Declaration of Human Rights, 1948

UNESCO, 17 November 2015, International Charter of Physical Education and Sport, Paris

Van der Ploeg, H.P., Van der Beek, A.J., Van der Woude, L.H. and Van Mechelen, W. 2004,
physical activity with a disability. Sports Medicine 34(10):636-649.

Wendy Taormina-Weiss, Revised/Updated: 2015-03-03 - Physical & Mobility Impairments
(<https://www.disabled-world.com/disability/types/mobility/>)

World Health Organization, 2007, Publications of the World Health Organization can be
obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva
27, Switzerland, and Printed in France

Z.P. Nkabinde, F.E. Obiakor, M.T. Ofor and D.J. Smith, Educating Children with Physical
Disabilities, In International Encyclopedia of Education (Third Edition), edited by
Penelope Peterson, Eva Baker and Barry McGaw, Elsevier, Oxford, 2010, Pages 640-
645 (<https://www.sciencedirect.com/science/article>)

Appendices

Observational Activities

According to Oakley observation is a type of qualitative research method which not only included participant's observation, but also covered ethnography and research work in the field. In the observational research design, multiple study sites are involved. Observational data can be integrated as auxiliary or confirmatory research.

Appendices A; Observational activities to be observed in Menelik primary school

1. Availability's of the road from class rooms to play grounds the field
2. School compound
3. Cooperation between student with physical impairment and students without disabilities
4. Availability of suitable sport equipment
5. Responds of physical education teachers during physical education lessons towards students with physical impairment
6. Availability of appropriate playgrounds or fields for students with physical impairment
7. Participation of students with physical impairment in physical education classes
8. Safety the environment for students with physical impairment
9. Teachers' ability to modify instructions for students with physical impairment

Appendices B; Observation activities to be observed in Diell Betigle primary school

1. Availability's of the road from class rooms to play grounds the field
2. School compound
3. Cooperation between student with physical impairment and students without disabilities
4. Availability of suitable sport equipment
5. Responds of physical education teachers during physical education lessons towards students with physical impairment
6. Availability of appropriate playgrounds or fields for students with physical impairment
7. Participation of students with physical impairment in physical education classes
8. Safety the environment for students with physical impairment

9. Teachers' ability to modify instructions for students with physical impairment

Appendices C; Interview Questions for Students with Physical Impairment in Menelik Primary school

This is the most common format of data collection in qualitative research. According to Oakley, qualitative interview is a type of framework in which the practices and standards be not only recorded, but also achieved, challenged and as well as reinforced. As no research interview lacks structure most of the qualitative research interviews are semi-structured, lightly structured or in-depth. Unstructured interviews are generally suggested in conducting long-term field work and allow respondents to let them express in their own ways and pace, with minimal hold on respondents' responses

1. Do physical education teachers give priority for students with physical impairment while they assess the class?
2. Do teachers or principal give students with physical impairment equal support like students without disability?
3. As comparing to the rest of your peers how do you express your performance?
4. Do you really think physical education is important to you? And why?
5. Do students with physical impairment regularly attend physical education class?
6. What do you think students with physical impairment improve to participate fully in physical education class?
7. If you do not participate in PE class what do you do on that period?
8. Do PE teacher motivate students with physically impaired during PE class?
9. What is your problem for not doing PE class like the students without disability?
10. Do you think that the curriculum or method of teaching physical education is good for students with physical impairment?

Appendices D; Interview Questions for Students with Physical Impairment in Diell Betigle primary school

1. Do physical education teachers give priority for students with physical impairment while they assess the class?
2. Do teachers or principal give students with physical impairment equal support like students without disability?
3. As comparing to the rest of your peers how do you express your performance?
4. Do you really think physical education is important to you? And why?
5. Do students with physical impairment regularly attend physical education class?
6. What do you think students with physical impairment improve to participate fully in physical education class?
7. If you do not participate in PE class what do you do on that period?
8. Do PE teacher motivate students with physically impaired during PE class?
9. What is your problem for not doing PE class like the students without disability?
10. Do you think that the curriculum or method of teaching physical education is good for students with physical impairment?

Appendices E; Interview Questions for physical education teachers in Menelik

Primary school

1. Do you have any other method to assess the students?
2. What possibilities do you recommend to develop participation of students with physical impairment?
3. What challenges have you face in implementing inclusive method of teaching strategy?
4. What kinds of instrument you use to teach PE? Do you modify it?
5. Do students with physical impairment have motivation when they do PE?
6. Do students with physical impairment interact with student without disabled in PE class?
7. What is your student's attitude towards PE class?
8. What are the major challenges that affect students with physically impaired to participate in PE lesson?
9. Do have any plane that you develop to help students with physical impairment?

10. How many periods do you teach per week physical education?
11. If students with physical impairment are not involved in PE lesson what they going to do at that period?
12. What do you feel that the most challenging to teach students with physical impairment?
13. Does the school community give special service for students with physical impairment?
14. Do you regularly participate in professional development training concerning students with physical impairment?
15. Is the curriculum including all children?

Appendices F; Interview Questions for physical education teachers in Diell Betigle primary

School

1. Do you have any other method to assess the students?
2. What possibilities do you recommend to develop participation of students with physical impairment?
3. What challenges have you face in implementing inclusive method of teaching strategy?
4. What kinds of instrument you use to teach PE? Do you modify it?
5. Do students with physical impairment have motivation when they do PE?
6. Do students with physical impairment interact with student without disabled in PE class?
7. What is your student's attitude towards PE class?
8. What are the major challenges that affect students with physically impaired to participate in PE lesson?
9. Do have any plane that you develop to help students with physical impairment?
10. How many periods do you teach per week physical education?
11. If students with physical impairment are not involved in PE lesson what they going to do at that period?
12. What do you feel that the most challenging to teach students with physical impairment?
13. Does the school community give special service for students with physical impairment?
14. Do you regularly participate in professional development training concerning students with physical impairment?
15. Is the curriculum including all children?

Appendices G; Interview Questions for administrator in Menelik primary school

1. What is your future plane as a school for those students with physical impairment?
2. What is the responsibility of the school principals to enhance the participation of students with physical impairment?
3. Did the school give training to upgrade teachers skill based on disability?

Appendices H; Interview Questions for administrator in Diell Betigle primary school

1. What is your future plane as a school for those students with physical impairment?
2. What is the responsibility of the school principals to enhance the participation of students with physical impairment?
3. Did the school give training to upgrade teachers skill based on disability?

Focus group discussion guide for physical education teachers and school principal's also special needs education expertise

Mini focus group discussion researchers are usually faced with a situation where there is a small potential pool of participants and are difficult to reach, yet the research design requires that the topic must be discussed in a group. Under these circumstances, researchers can only convene a small group of between two and five participants (Kamberelis, G., & Dimitriadis, G. (2013). Such groups are usually made up of individuals with high level of expertise.

Appendices I;

Group discussion questions for Menelik PE teachers, administrators and special need education expertise

1. How do you improve the involvement of students with physical impairment in physical education lesson?
2. In what way the school gone improve the teaching and learning process?
3. What is the future plane on curriculum?
4. How often the school and physical education teacher involve in modifying the equipment for students with physical impairment?

Appendices J;

Group discussion questions for Diell Betigill PE teachers, administrators and special need education expertise

1. How do you improve the involvement of students with physical impairment in physical education lesson?
2. In what way the school gone improve the teaching and learning process?
3. What is the future plane on curriculum?
4. How often the school and physical education teacher involve in modifying the equipment for students with physical impairment?