CHALLENGES FACING IMPLEMENTATION OF PHYSICAL EDUCATION INSTRUCTION IN PUBLIC PRIMARY SCHOOLS IN KENYA. A CASE OFNYAMIRA SOUTH SUB-COUNTY.

BY

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DECLARATION

DECLARATION BY STUDENT

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This research thesis is dedicated to my husband John Nyakundi, my children Dickson Oguku, Dorcas Kemunto and Charity Nyang'ara for their love, encouragement, cooperation, inspiration and support they have always provided to my educational endeavors and success.

ABSTRACT

Physical Education is of vital importance as it contributes to improved fitness levels as well as in the children's physical, social and mental development. The purpose of the study was to investigate the challenges that hinder implementation of Physical Education instruction in public primary schools in Nyamira South Sub-County. Teacher's attitude, teacher's training, learner's gender, and learner's age, formed the core of investigations. The study was guided by Gross's curriculum Implementation theory. Data was collected using the revised questionnaire. Out of 278 teacher questionnaires sent to the field, a total of 249 usable questionnaires were returned. This corresponded to a response rate of 89.6%. In addition PE observations were successfully made in the six zones of the sub-county. Both stratified and simple random sampling techniques were used to get a sample of 278 public primary school teachers. In this study the descriptive survey research design was used. The study used two data collection instruments: the questionnaire and observation checklist. Descriptive and inferential statistics were used to analyze data. Frequencies and percentage were used to summarize teacher's back ground characteristics. Mean and standard deviations were used to describe prevailing levels of teacher training in PE, teacher attitude towards PE, learner gender and learner age towards PE. Thematic analysis was employed in analyzing recurrent themes emanating from PE lesson observations. The statistical package for social sciences (SPSS version 20) was used in the analysis of data. The results showed that most of the teachers teaching PE in Nyamira south- Sub County are females. Most teachers had certificate qualifications and their knowledge and skills were acquired in college, therefore teacher training was not a hindrance to implementation of PE. The issue of PE kits was a serious let down to PE implementation, girls shied away from PE when attending their periods. Despite all schools having in place a timetable for guiding PE instruction, observation reveal that lack of prerequisite facilities, PE gear and poor state of the field among others are challenges to PE implementation. The study recommends among others that the government through the ministry of education to make PE examinable, proper PE kits should be provided during PE instruction, sensitization programs that can be directed to address negative attitude. The study recommends that similar studies should be replicated in public primary schools in other sub-county so as to improve external validity of the findings. Future studies should consider using synthetic approach that would treat the issue of challenges to implementation of PE instruction for a holistic perspective. The knowledge gained from the study will help stakeholders, parents, pupils and school personnel to make informed decisions concerning physical education.

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LIST OF ABBREVIATIONS AND ACRONYMS

CDE	County Director of Education
FPE	Free Primary Education
KICD	Kenya Institute of Curriculum Development
KIE	Kenya Institute of Education
NACOSTI	National Commission for Science Technology and Innovation
NASPE	National Association of Association of Sport and Physical Education
NCPWD	National council for people with disability
PA	Physical Activity
PE	Physical Education
PHE	Physical and Health Education
PTE	Primary Teacher Education
QASO	Quality Assurance and Standards Officers
SPSS	Statistical Package for Social Scientists
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational Scientific and Cultural Organization
WHO	World Health Organization

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CHAPTER ONE
INTRODUCTION TO THE STUDY

1.0 Overview of the chapter

This chapter introduces the research study by focusing on the following key elements of the introduction: background of the study, statement of the problem, the objectives of the study, research questions and significance of the study, assumptions, theoretical framework and operational definition of terms. It also highlights the scope and delimitations of the study, limitations to use of findings as well as the conceptual framework used.

1.1 Background to the Study

Kenya as a country is renowned in world athletics with its athletes excelling in major athletics events across the world. This prowess however requires sustained periods of physical activity in order to maintain the body in a healthy condition. It is evident that children show enthusiasm for participation in physical activities observing how they often engage in various activities during break and lunch time. Indeed the importance of physical activities for health and well-being is enumerated in the large body of research investigating the benefits of physical activities and which point to the heart, skeletal muscles, bones, blood, immune system and the nervous system as the many parts of the body that benefit from physical fitness (WHO, 2011', Woodcork, Franco, Orsini & Roberts, 2011).

Kenya as a member state of the United Nations Educational Scientific and Cultural Organization (UNESCO) undertook steps to assure and guarantee access to physical education and sport to its citizens in recognition of the International Charter of Physical Education and Sport (1978) which pointed out participation in PE and sport as a fundamental right for all. Consequently, physical education (PE) and sports as noted by Njororai (1996) was made one of the subjects in the country's 8-4-4 system of education. The point was that physical activities can be optimized by making PE compulsory at Primary School and Secondary School levels as well as at teacher education level. Although on paper it seems easy to provide all children and young

people in Kenya with PE, the task of delivering quality physical education remains very challenging in most primary and secondary schools across the country.

Although Hickson and Fishburne (2004) have asserted that a properly designed PE programme can enhance young people's enjoyment of and participation in physical activities, evidence shows that implementation of PE programmes faces many challenges globally. In a study conducted in Victoria State Secondary Schools in Australia, and focusing on barriers to providing physical education and physical activity, Jenkinson and Amanada (2010) established that implementation of PE in these schools was constrained mainly by institutional factors even though teachers occasionally had difficulties engaging students when teaching. Besides, the study revealed that students interest when choosing to participate was also a notable barrier. These findings actually reflect observed situations in the Kenyan school context particularly the primary sector where institutional factors such lack of adequate facilities contribute mostly in challenges that are often encountered when trying to implement the PE programme.

Contributing to discourse on implementation of PE in schools, the final report of the world wide survey of school physical education (2013) reports that whereas several countries have shown commitment towards physical education either through legislation or general practice, provision of quality PE is far from assured. The PE curriculum allocation is complicated and exacerbated by non-implementation owing to a host of reasons. PE as a subject is mostly given a low status leading to a high frequency of its cancellation than other subjects. The issue of canceling PE lessons in favour of other subjects is a very common phenomenon in the Kenyan Context. More often than not, teachers opt to use time allocated for PE to revise the so called 'examinable' subjects. Whereas the report pointed to the low status given to PE as a subject, it fails to outline ways that can be used to address this low status given to PE.
Studies focusing on implementation of PE have also permeated the African Context. According to Kebede (2013) conducted a study focusing on practices and challenges of physical education teaching in the teaching–learning process in Addis Ababa, using the descriptive survey method class size, time management, lack of materials, lack of

skill, attitude and experience were institutional and teacher oriented were found to be key challenges to implementation of PE. The issue of class size is indeed a confounding issue in Kenya considering that at the introduction of Free Primary Education (FPE), public primary schools were overwhelmed by enrolment making implementation of most subjects challenging. Teachers have many a times exhibited a negative attitude towards the subject and majorly lack required skills to implement the PE programme.

Nhamo and Muswazi (2013) conducted a study that reviewed and analyzed content of relevant literature and policies in a view to identify critical barriers impeding the delivery of physical education in Zimbabwe primary and secondary schools. Their findings point to several thematic areas that explain non-teaching of PE. Key among these areas include; substandard and inadequate facilities and equipment; no special entry for enrolment into PE teachers training programme; negative attitude on the part of administrators, education officers, heads of schools, teachers and parents; misconception of PE as a low status subject and lack of requisite materials. The findings in the Zimbabwean context are consistent with findings in other contexts. Considering the difference in methodologies among several studies, it is safe to posit that similar findings in terms of institutional and contextual domains are replicated in reviewed studies.

Several studies have equally been conducted in Kenya with the foci being implementation of PE in both primary and secondary schools. Gathu, Ndung'u and Bomett (2015) conducted a study on challenges faced by principals in implementing PE in public primary schools in Githunguri. Using a survey design, the study established that lack of adequate staff, lack of facilities and poor state of available facilities were key challenges experienced. Once again, the findings of this study emphasize institutional challenges that continue to be exposed by several studies. Considering that this particular study was consigned to Githunguri, external validity of the findings may be brought to question warranting similar studies in other contexts.

In yet another study focusing on the efficiency of implementation of the PE curriculum in Nairobi County and Nyeri County pre-schools, Kaluga, Rintaugu and Gatumu (2015) used content analysis to find out that PE lessons were used to teach other activity areas and teachers mostly supervised children playing instead of giving instructions. PE equipment was found to be inadequate and this was attributed to lack of funds. The bottom line is that PE implementation was not efficiently done. These findings clearly show that PE is simply not being given the seriousness it deserves as a curriculum subject. This indeed is the picture painted across the county where children are seen to be engaged in activities that do not seem to have any particular order.

Kirui and Too (2012) also explored the teaching of physical education in the secondary school context. In a study conducted in Bomet district and focusing on teaching of PE as a fundamental right of students in secondary schools in Kenya, these authors used descriptive survey to establish that students were denied their right to be educated in PE in secondary schools in Bomet district. Despite both teachers and head teachers being aware of the right of students to be given PE, the study established that the nature of the 8-4-4 curriculum was such that PE lessons were normally used for remedial teaching and completion of course content in other subject areas. Pressure from parents who do not value physical activity among children has also been associated with challenges facing implementation of PE. According to Nyonje (2004) and Wawire (2006), parents tend to put pressure on teachers to concentrate on academics at the expense of physical activity. This tends to compromise children's participation in play and therefore inhibits implementation of PE instruction.

The promulgation of the constitution 2010 brought opportunities for Kenyans to be more active in the participation of planning and implementation of development plans of their regions. As noted by the county director of culture (2016), Nyamira County is desirous of encouraging young people to embrace sports and cultural activities in order to exploit their talents to the maximum. The county has consequently undertaken to rigorously explore and seek investment partnerships in order to leverage on the economic and social opportunities. Physical activity and sports form a key foundation of such opportunities. The array of studies focusing on challenges facing

implementation of PE in schools however does not include the County. Considering that PE is the bedrock of sports and cultural activities, there was a need to interrogate challenges that face implementation of PE in primary schools in the county for actualization of these investment opportunities to be met.

1.2 Statement of the Problem

The importance of physical education instruction in primary schools cannot be overstated. Primary schools play a significant part in valuing the idea of an active lifestyle and developing a culture where physical activity is accepted as an enjoyable and all-embracing feature of daily life. Indeed, evidence show that by properly designing and delivering PE programmes, schools can enhance young people's enjoyment of and participation in the subject thereby improving their concentration, memory, behaviour and performance (Hickson & Fishburne, 2004).

Despite the potential PE has in the well-being and health of students, its implementation in public schools in Nyamira south sub-county has remained a big challenge. Quite often PE as a subject has not been given the seriousness it deserves, there is fear that PE lessons are being conducted without teacher supervision this makes PE look a haphazard play. In other cases, these lessons have been used by teachers to cover syllabi in other subjects as well as for remedial work. Besides, considering that PE is the foundation of sports and cultural activities that Nyamira County wishes the youth to embrace, it was therefore necessary to explore challenges to implementation of PE in public primary schools in the County.

1.3. Purpose of the Study

Physical education programmes are noted to enhance positive attitude towards exercise by encouraging students at all skill levels to participate. Implementation of the PE programmes in schools does not however go as planned. The study therefore purposed to investigate challenges that face implementation of Physical Education instructions in public primary schools in Kenya using public primary schools drawn from Nyamira South Sub-County.

1.4. Objectives of the Study

i) To establish how teacher attitude challenges implementation of PE instruction in public primary schools.

ii) To determine how teacher training challenges implementation of PE instruction in public primary schools.

iii) To find out how gender of a learner challenges implementation of PE instructions in public primary schools.

iv) To establish the influence of learner's age on implementation of PE instructions in public primary schools.

1.5. Research Questions

i) How does teacher attitude challenge implementation of Physical Education instruction in public primary schools?

ii) In what way does teachers' training challenges implementation of Physical Education instruction in public primary schools?

iii) How does learner's gender challenge implementation of Physical Education instruction in public primary schools?

iv) In which way does age of the learner challenge implementation of PE instructions in public primary schools?

1.6. Significance of the Study

The research findings are significant since they have potential to encourage the promotion of Physical Education in terms of exercise and fitness in primary schools. The results of this study also contribute to the research base for areas in education including Physical Education curriculum, school scheduling and extra curriculum options. Education stakeholders, parents, pupils and the school personnel can use the knowledge gained from this study to make informed decisions concerning Physical Education promotion such as sports, athletics, music, ball games, and gymnastics among others. It will assist the school administrators and teachers on how to effectively integrate Physical Education activities and still maintain a focus on student academic achievement. Furthermore, the findings and recommendations would be useful to the government and the curriculum planners in policy making and in

planning educational strategies for Kenyan pupils. Finally, this work will be a guideline to future researchers who will carry out their research work on this area. This study will be a catalyst to generate debate and open a scholarly discourse which will help primary school teachers and pupils in changing their attitudes towards Physical Education.

1.7. Justification of the Study

Physical Education activities provide fun, enjoyment and help in the developmental process. However, the implementation of Physical Education instruction is affected by many challenges key among them being those related to the learner and the teacher. The teacher and the learner play a role on PE implementation (Hardman, 2008). In Kenya Physical Education is a mandatory subject in the primary syllabus. The objectives of teaching PE in primary schools are as follows: develop self-discipline through the understanding and application of rules and regulations in games and sports; preservation of culture, pursue physical activity for health fitness and general body growth and development and to identify, nurture and develop individual talents in specific sports (KICD,2002). Failure to effectively implement PE teaching has led to substantial increase in the prevalence of overweight and obesity among children and adolescents around the world (Hardman, 2008). Therefore, it is prudent to carry out a study on challenges of implementation of Physical Education instruction in public primary schools in Nyamira South Sub-County, Kenya because from the literature provided PE is a basic right to the children as it provides a base for their holistic development.

1.9 Scope and Delimitations of the Study

The academic scope of this study was implementation of instruction in core subjects of school curriculum delimited to physical education instruction. Consequently findings in this study were only generalized to instruction as relates to physical education. Geographically, the study focused on public primary schools in Kenya delimited to primary schools in Nyamira South sub-county for ease of conducting the study. In essence therefore findings in this study were only generalized to public primary schools.

1.9.2 Limitations to the Study

Potential limitations to the findings of this study related to the methods used in data collection and analysis. This study relied on a sample of schools in the sub-county and hence data collected could not guarantee completeness, limiting generalization of the findings. Besides, correlation as a method of analysis does not prove causality. This means that challenges established in the present study may not be the cause of the poor implementation of the PE programme in primary schools in Kenya. Moreover, Nyamira south sub-county has its own focus with regards to participation of the youth in economic and social development. The study findings may therefore not work for other sub-counties within the county let alone other counties in Kenya.

1.10 Assumptions of the Study

The study was guided by the following assumptions:

i) The curriculum being used in all public primary schools was the same and that teachers were aware of and have access to the PE syllabus in their respective schools.

ii) Implementation of PE in schools in Nyamira south sub-county experiences challenges like many other areas in Kenya and worldwide.

1.11 Theoretical Framework

1.11.1 Curriculum Implementation Theory

This study was based on the ideas and concepts of curriculum theorists; Gross *et al.,* (1971), Tyler, (1949), Fullan (1982) and Shiundu and Omulando (1992). These curriculum theorists noted that the degree of success of a curriculum implementation depends on the scope to which several factors would be considered. The factors outlined by the curriculum theorists include the extent to which members of the school organization possess the capabilities and competencies needed to carry out the process of curriculum implementation, availability of resources, provision of management support and clarity and awareness of the objectives of the innovation, the attitudes of the implementers, recipients and other stakeholders.

This study focused on challenges to implementation of PE instruction and for this reason there was need to examine an array of factors. This was consistent with the claims under the curriculum implementation theory that the degree to which any curriculum was assessed to have obtained its objectives depended on among other factors, attitude of the implementers and other stakeholders like the parents, support provided by the management staff for instance the principals and Quality Assurance and Standards Officers (QASO), availability of facilities and equipment, the extent to which implementers had attained the abilities and competencies (training) required to conduct the implementation and delivery of the curriculum processes and lastly, the extent to which teachers and students were clear and aware of the scope and content of the curriculum to be delivered.

This theory was therefore found ideal since the current study focused squarely on implementation of the PE curriculum and therefore fell within the domain of curriculum implementation. Variables for the study were majorly informed by factors identified in the theory as being crucial in the implementation of curriculum processes and its delivery.

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1.11.2 Conceptual Framework

Based on the review of literature regarding challenges posed to implementation of PE curriculum in most primary school, three sets of variables were distinguished to explain implementation of PE instruction. The first set of variables was teacher and learner related challenges to implementation of PE. According to Sirimba (2010), majority of teachers hold negative attitude towards PE. Besides, most do not prepare professional documents for the subject. On the other hand, Orodho, Waweru, Ndichu and Nthinguri (2015) noted that student motivation and school safety were critical to successful implementation of PE. In this regard, teacher attitude, teacher training, learner gender and learner age were conceptualized as independent variables for the study.

The second set of variables regards the indicators that measure effective implementation of PE instruction in schools. Several studies have highlighted learner

involvement, use of systematic teaching procedures, and provision of a variety of opportunities to apply knowledge as central to effective implementation of a programme (Abagi, 2010; Taylor, Pearson & Walpole, 1999; Kemp & Hall, 1992). Implementation of PE instruction was therefore conceptualized as the dependent variable measured through planning, resources, materials, and space.

Whereas the conceptualization considers the relationships between the independent variables and the dependent variable, factors within the study context were deemed to have extraneous effects on this relationship. These factors include government legislation, education policies, weather conditions, and conflicts. These factors constituted the third set of variables in the conceptual framework which was referred to as extraneous variable. Figure 1.1 presents the concise conceptual framework.

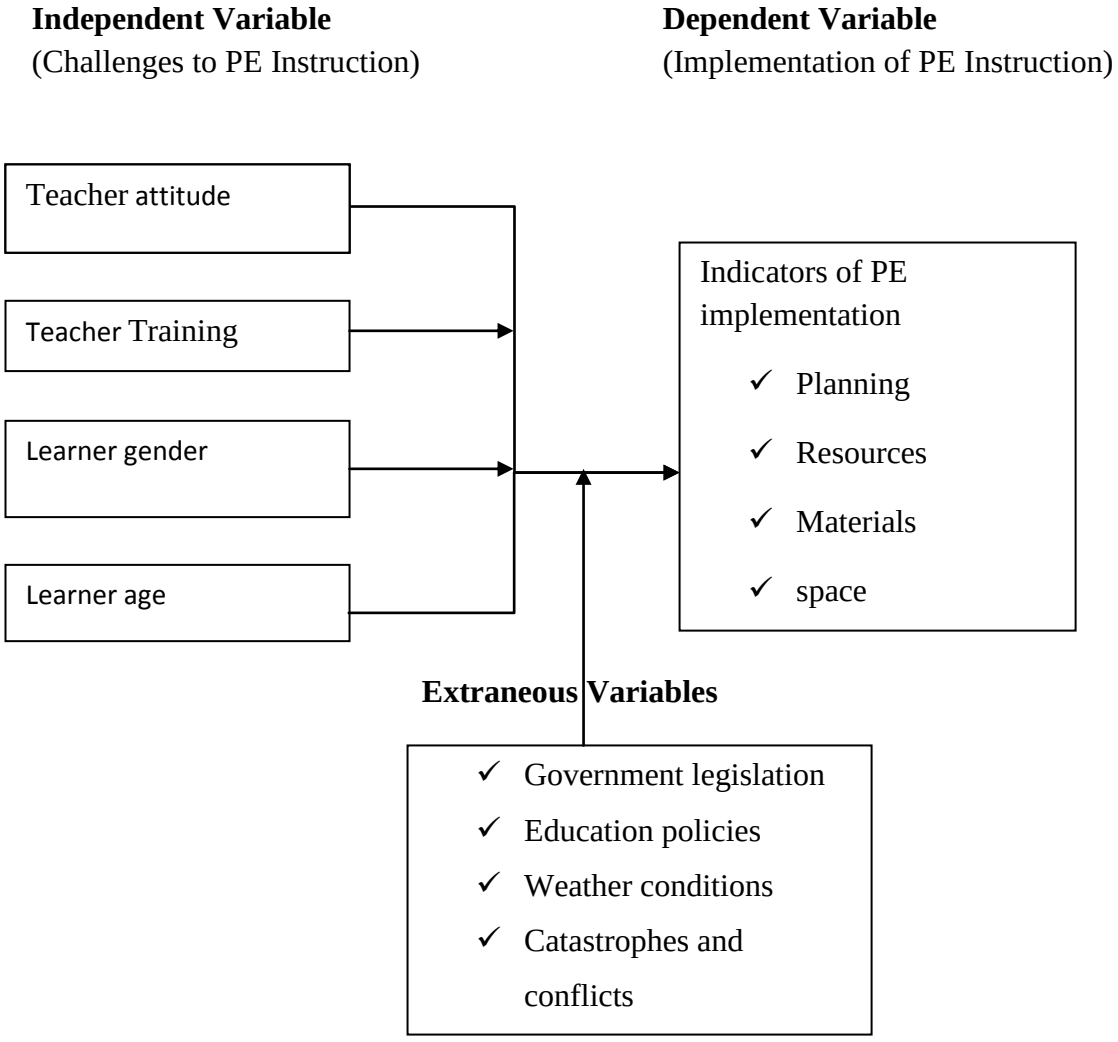

Fig. 1.1 Conceptual Framework

1.12 Operational Definition of Terms

Attitude: in this study, attitude was operationalized to mean feelings and beliefs exhibited towards PE instruction.

Challenges: challenges in this study were operationalized to reflect barriers and other impediments faced during PE instruction

Curriculum: According to this study it means learning activities carried out in schools.

Games: In this study means a form of activity or sport played following set rules.

Gender: gender was operationalized to mean male or female of learner and was manifested in terms of 'boy' or 'girl'

Implementation: According to this study it is taken to mean whether the prescribed PE curriculum is delivered to the consumer who in this study is regarded as the pupil.

Instruction: In this study, instruction was used to mean approaches and process physical education teachers employ to implement the physical education curriculum.

Physical Activity: Physical activity according to this study is any bodily movement which uses energy and is produced by skeletal muscles.

Physical Education: Physical Education also known as physical training in this study is an educational course related to the physique of the human body, taken during primary and secondary education that encourages psychomotor learning in a play or movement exploration setting to promote health.

Public primary school: According to this study it is a level of learning which is sponsored by the government and has class 1-8 with an age of learners ranging from 6-15 or more with the introduction of free primary education.

Sport: In this study it is as a competitive athletic activity requiring skill or physical ability.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter presents findings from a concise review of literature related to the study. First, a general review of literature on the key concepts of physical education and challenges to its implementation was conducted. A related review of literature was next conducted to establish reported challenges that teacher training and attitude as well as learner gender and age pose to implementation of PE instruction.

2.1 General Review of Literature

This section reviews existing literature on the key concepts of physical education and its implementation in the school context.

2.1.1 The Concept of Physical Education

Physical activity has been and remains part and parcel of the school programme as a result of activities requiring regular bodily movement. Quite often children have engaged in haphazard physical activity that occasionally poses health risks. Recognition that children develop through different stages necessitated an avenue through which appropriate activities could be designed to meet development of children's fine and gross motor skills as well as their well-beings commensurate with the relevant developmental stage (Robinson & Goodway, 2009; Robinson, 2011). Physical Education therefore as noted by National Association of Sport and Physical Education (NASPE, 2012) focuses on an organized and planned manner of teaching students the science and methods of physical active and healthful living. In essence therefore rather than let children participate in haphazard activities, PE as a subject structures and offers repetition of physical activity.

Physical Education has been viewed from diverse perspectives. According to Sallis and Mckenzie (1991), PE is education content that aims at teaching social, cognitive and physical skills through physical activity. Viewed from this perspective, the authors contend that children and the youth are prepared to cope with the rigors of physical

activity and also to engage in physical activity during PE. In emphasizing this perspective Siedentop (2009) argues that PE is education through the physical. Consequently, PE encompasses dimensions of movement education, sport education and fitness education.

Importance of PE is highlighted by the International Charter of Physical Education and Sports (UNESDDC, 1978 cited in Kipngetich & Rotich, 2014), supported by UNESCO member states conference of 1978 (cited in Kipngetich & Rotich, 2014) which declared physical education and sport a fundamental right for all. Besides, the convection on the Rights of the Child (UNICEF, 1990) requires that education be directed to the development of the child's personality, talents, and mental and physical abilities to full capacity. Additionally, recognition of the utility of PE is emphasized through the Moscow Declaration (1990), the Berlin Declaration (1999), the and the Punta Del Este Declaration (2000) which together call for clear spelling out of time allocation for PE in both primary and secondary school levels.

2.1.2 Physical Education in the School Context

As a subject, it is reported that physical education was introduced in form of German and Swedish gymnastics in the 19th century in recognition of their role in human health. Through discourse among scholars (Weston, 1962), personal hygiene and exercise for bodily health were further incorporated to the gymnastics. This focus on bodily health was however viewed by critics as rather too narrow thereby necessitating inclusion of fundamental movements and physical skills for games and sports (Wood & Cassidy, 1930). Changes to PE in the context of schooling have continued to be made leading to connecting of body movement to its consequences as well as, teaching children the science of healthful living and skills for active lifestyle (NASPE, 2004).

As part of Education, PE provides opportunities for children to learn about physical movement while engaging in physical activities. In this case, three curriculum models have been advanced as useful in PE instruction and include movement education, sport education and fitness education. According to Abels and Bridges (2010), children use their bodies for self–expression and could benefit more from movement education.

Siedentop *et al*., (2011) argue that sport education as a model of PE instruction is relevant in educating students to be players in the fullest sense. This is indeed is quite rewarding in today's world where so many people earn their living from sports. The conceptual framework for fitness education hinges on health related components that accrue from fitness such as cardio-respiratory fitness, muscular strength and endurance (Lonsdale *et al*, 2013).

2.1.3 Physical Education in the Kenyan Schools

Physical Education is considered as a compulsory subject in Kenyan primary and secondary schools as well as in teacher education (Njororai, 1996). The inclusion of PE and sport in the Kenyan school curriculum was informed like in other countries by the proclamation of the United Nations Physical Education and Sports Charter (UNESCO, 1978). Consequently, there was need for the country to recognize the role PE was noted to play in an individual's all round development. Besides, several other declarations including the Berlin Declaration of (1999), the Moscow declaration (1990) and the Punta del Este Declaration (2000) have emphasized the need to clearly spell out allocations for PE per week in both primary and secondary school levels.

The origins of Physical Education and sports as practised in Kenya is traced along missionaries, white settlers and colonial masters whose influence was responsible for the largely English type of physical education and sports mostly practised in Kenya secondary schools. The genesis of the present day PE syllabus remains the British Training Syllabus of 1933 which operated up to the 1950's (Nteere, 1987; Nteere & Hardman, 1987 cited in Akiiki, 2009). Development of physical education in Kenya has subsequently followed general post independence reforms in the country. Consequently, content in PE has undergone changes at different times in line with social, political and economic requirements for education. The onset of the 8-4-4 system oversaw changes in content, form and status of the subject in the curriculum. Moreover changes were also made to the structure, practice and training of PE teachers (Wamukoya, 1993; Njororai, 1996, Njororari & Gathua, 1997).

The Berlin World Summit on Physical Education (1999) unearthed some inconsistencies and shortcomings in physical education implementation warranting further reforms in PE and sports. Kenya has therefore endeavored to continuously reform its PE syllabus to improve delivery of the subject. However, reforms have at times led to reduction in time allocated to teaching the subject in order to accommodate other concepts such as Human Immune Virus, Acquired Immune Deficiency Syndrome, Sexually Transmitted Diseases and Sexually Transmitted Infections. (HIV/AIDS, STD/STI's) gender and human rights, environment conservation which at one time were embedded into the PE syllabus (KIE, 2002). As reforms have continued to be introduced, the name of the subject has also been undergoing changes. Starting from physical Education (PE), the subject was changed to physical and health education (PHE) but has reverted back to PE.

Physical Education in Kenya is modeled along the three models of movement education, sport education and fitness education. The Primary Teacher Education (PTE) syllabus (KIE, 2004) clearly points to the need for pupils to acquire basic skills and physical activities in order to: promote growth and development, fitness, health, character formation, enjoyment, acquisition of lifetime sports and games. Movement, sport and fitness dominate objectives of teaching physical education in schools in Kenya and which include the following: development of physical and neuromuscular skills; performing skillful and efficient movements through physical and mental coordination; developing knowledge and experience of movement concepts for expression and communication; developing good citizenship and national cohesiveness through sporting activities; appreciating and participating in both national and international sport and dance for understanding, respect and preservation of own and other culture; and engaging in physical activities in order to promote health, fitness and general body growth and development.

2.2 Challenges to Implementation of Physical Education Instruction

Challenges in this study means a form of activity or sport played following set rules. Implementation of physical education instruction or delivery of the PE curriculum through a structured approach and process remains a central theme in existing

literature. Several challenges have been reported in relation to curriculum fidelity issues in physical education. According to Zhu, Ennis and Chen (2011), issues to curriculum fidelity, which describes the extent to which a curriculum is implemented faithfully, arise when teachers implement the curriculum inconsistently due differences in philosophy, barriers in settings or other concerns. The implication here is that failure to implement the PE curriculum as planned may be due to institutional and teacher-learner factors.

Juxtaposing experiences of physical education teachers in Kenya and Victoria (Australia), Wanyama (2011) suggests that teachers in Kenya feel that PE is marginalized compared to other school subjects. The author averts that being elective and non-examinable, PE is not given prominence. Competition from other subjects has also forced many schools to reduce or cancel some PE programmes. Contributing to this discourse on implementation of PE education in schools, Gathu, Ndung'u and Bomett (2015) observe that several factors contribute to poor implementation of PE in public secondary schools. Among these factors include: not providing enough time for PE; lack of adequate staff for PE; lack of facilities in schools for PE and the poor state of those available.

The issue of inadequate time allocated for PE and PE not being given prominence is indeed a key issue that continues to compound implementation of PE curriculum in many Kenyan schools. Njoki (2007) and Gaceri (2010) while exploring factors affecting children's outdoor play in pre-school PE in Lang'ata division and Sagana zone respectively identified inadequacy of time allocated to PE and PE not being taught even when it appears on the time table as among key factors. PE facilities and equipment also feature prominently in discourse directed towards implementation of PE curriculum. In a study focusing on provision of pre-school education in North Kinangop, Maina (2011) pointed towards inadequacy of PE facilities and equipment as some of the barriers. Some schools were even found to be lacking playgrounds.

2.3 Review of Related Literature

This section provides literature on the interrelationships between the conceptualized teacher and learner factors and implementation of PE instruction. Empirical review was conducted so as to inform on gaps that the study could explore with regards to PE implementation in Nyamira south sub-county

2.3.1 Teacher attitude and implementation PE instruction

Attitude in this study was operationalized to mean feelings and beliefs exhibited towards PE instruction.

The easiest way of finding out about someone's attitudes would be to ask them. Attitude was however related to self-image and social acceptance. In order to preserve a positive self-image, people's responses may be affected by social desirability. They may not well tell about their true attitudes, but answer in a way that they feel socially acceptable. Given this problem, various methods of measuring attitudes have been developed. However, all of them have limitations. In particular the different measures focus on different components of attitudes – cognitive, affective and behavioral but these components do not necessarily coincide. An attitude scale was designed to provide a valid, or accurate, measure of an individual's social attitude. According to Fisher, (1993), anyone who has "faked" an attitude scales knows there are shortcomings in these self report scales of attitudes.

Kurtz, *et al.,* (2008), the most common problem that was associated with the measurement scale was that of social desirability. Socially desirability refers to the tendency for people to give "socially desirable" to the questionnaire items. People are often motivated to give replies that make them appear "well adjusted", unprejudiced, open minded and democratic. Self report scales that measure attitudes towards race, religion, sex etc. are heavily affected by socially desirability bias. Respondents who harbor a negative attitude towards a particular group may not wish to admit to the experimenter (or to themselves) that they have these feelings. This makes responses on attitudes not to be valid 100%. Indirect methods typically involve the use of a projective test. A projective test is involves presenting a person with an ambiguous (i.e. unclear) or incomplete stimulus (e.g. picture or words). The stimulus requires interpretation from the person. Therefore, the person's attitude is inferred from their

interpretation of the ambiguous or incomplete stimulus. This study adopts direct method of attitude measurement using a questionnaire.

Teacher attitude features strongly in existing literature as having an influence on implementation of curriculum and eventual learner performance. It is reported that individual teachers have inherent views about schools and learners which they tend to bring into the classroom context without due consideration of their effect on learner perceptions of the subject (Hendrikz, 2000). Empirical evidence explicitly shows that teacher beliefs and attitudes tend to define their strategies to teaching and handling of learner's and is therefore central to successful implementation of instruction (Hendrikz, 2000).

Bucher (2003) in a study on teachers' attitude and physical activity revealed that a teacher's attitude plays a pivotal role in ensuring that students have positive experience of physical activity in school settings. The findings by Bucher (2003) support views that the teachers who feel good about themselves and are competent and confident in what they do, are more likely to create supportive and nurturing environment for their students. Besides, Bucher (2003) established that teachers play a pivotal role in ensuring that students have positive experience of physical activity in school settings. These findings regarding teacher attitude however focus only on physical activity which is just one component of Physical Education thus triggering the current study to investigate how teacher attitude poses challenges to implementation of all facets of PE. It is important to note that PE has many components, for instance, gymnastics, aerobics and other activities such as learning of skills of playing various ball games. All these components contribute to total development of pupils.

Atoni (2013) conducted a study on teachers' perception on teaching of Physical Education in public primary schools in the then Eldoret Municipality Kenya. The sample consisted of 13 public primary schools and 162 teachers. Cross-sectional descriptive survey design was employed to conduct the study. The research instruments used were questionnaire for the teachers, interview guide for the head

teachers and PE panel chairperson and an observation checklist. Data was analyzed by use of means, frequencies and percentages. Pearson product moment correlation was used to determine the relationship between PE teaching and teachers' past memories on school PE. Factors affecting teaching PE were assessed using independent samples t-test (for categorical variables with two levels) and ANOVA (for categorical variables with more than two levels). The study revealed that PE implementation is low in public primary schools in Eldoret Municipality, the Teachers' Perception on PE teaching was negative and the factors that were found to be affecting PE teaching were; education level of a teacher and age of a teacher. A teacher's past memories on school PE was also found to be affecting PE teaching.

Morgan and Thompson (2001) conducted a study in Australia on the teachers' attitudes and experiences on teaching primary schools. The findings of the study were that a teacher's prior experiences influenced teaching methodology and practices. Further, the study revealed that a teacher's past experiences contributed immensely on their current attitudes towards PE. From the study's findings it was established that for many primary teachers their own experiences of P.E and sports in schools often combine into a negative attitude towards PE and PA Monsen (2004) conducted a study in New Zealand concerning teachers' attitude towards PE curriculum in high schools. The study revealed that students at high school did not willingly participate in PE programs unless forced to. The participants recommended that awareness should be created among teachers and students on the importance of PE. This study was conducted on high school teachers. It would be prudent if primary teachers' views were collected thus the reason why this current study was being conducted.

Sharma, Loreman and Forlin (2011) conducted a study on measuring teacher's attitude to implement PE curriculum practices. The purpose of the study was to measure perceived teacher attitude to teach a PE class. The participants were 607 pre-service teachers selected from four countries Canada, Australia, Hong Kong, and India. The results of the study indicated that attitude of a teacher affected instruction of PE. This study was conducted on four countries and all of them are far away from the country of the current study.

Sololainen, Engelbrech, Nel and Malinen (2013) conducted a study on understanding teachers' attitudes and self-efficacy in teaching PE in an inclusive education classroom. The participants were 313 South Africans and 822 Finnish both primary and secondary school teachers. The results of the study indicated that whereas the overall sentiments towards disabilities were positive in both countries teachers had concern about the consequences of including children with disabilities in a regular PE classroom. The most positive aspect of self-efficacy among the South African teachers was their self-efficacy in managing behavior. The Finnish teachers saw this as the weakest point. Self –efficacy was clearly related to overall attitudes towards inclusion of students in a PE class. This study was conducted on both primary and secondary teachers prompting the current study on primary teachers only. The discourse on teacher attitude and PE clearly points to the need for the teacher to maintain a positive attitude towards physical education if learners have to gain. Several gaps however are highlighted in this discourse. Majority of studies have been conducted in developed countries where PE infrastructure is in place. It was therefore prudent to identify teacher attitude towards PE from a developing country perspective.

Whereas studies on teacher attitude have been conducted in Kenya, no such studies have been conducted in Nyamira south sub-county. It was therefore suitable to investigate teacher attitude towards PE instruction in this area whose topography is mostly hilly "Gusii highlands". This was likely to offer an analytic approach to teacher attitude that would factor in cognitive, affective and behavioural components of attitude as opposed to the holistic view to teacher attitude that exist in current literature. More importantly, though studies continue to find that teacher attitude is a challenge to implementation of PE instruction, they fail to enumerate how this happens. The study therefore sought to establish how teacher attitude poses challenges to implementation of PE instruction

2.3.2 Teachers' training and implementation PE instruction

Teacher training recurs in existing literature as one of the teacher oriented factors that contribute towards required classroom practices. According to Bless, Smith and Kagee (2006), professional teacher training is a crucial factor in classroom instructional

practices as well as general school practices. Preparation of pre-service teachers academically and professionally is therefore a vital step in securing teachers future array of classroom practices. It is on this basis that Ishumi (2009) argues that teacher training institutions have the responsibility to prepare teachers in the three dimensions of speculative, normative and analytical.

Morgan (2004) asserts that teachers who are not trained lack knowledge of P.E and this contributes to uncertainty about what they do. In concurring with these views, Caputo (2009) argues that teachers who demonstrate a good knowledge of P.E skills and a readiness to participate have a positive attitude to P.E and P.A in learners. Reviews of teacher training aimed at improving student achievement indicate that focusing on teachers knowledge of the subject matter, and how students understand and learn it, is what matters most (Young, 2012). From these sentiments teachers like their students need to become lifelong learners who pursue continuing growth in their knowledge, understanding and skills.

Wanyama, (2011), did a study on the challenges of teaching Physical Education: juxtaposing the experiences of Physical Education teachers in Kenya and Victoria (Australia**).** The intent of the study was to compares the experiences of Kenyan and Victorian secondary school Physical Education teachers with the aim of discovering what they can learn from each other. The study sought to gain an understanding of the teachers' experiences in relation to curriculum; pedagogy and administration of PE program me in their secondary schools. In-depth interviews with four experienced PE teachers; two from Kenya and two from Victoria was conducted. A phenomenological research method was used. The study showed among other factors, teachers' professional affiliation affects teachers in both Kenya and Victoria. The reviewed study was conducted in secondary schools which are a higher level of learning than the primary schools thus the current study was done in primary schools to find out if the factors identified by the author are experienced by primary school teachers. The reviewed study was a comparative study but the current study was only focused on Kenyan schools with reference to Nyamira South Sub-County this because teachers'

professional knowledge and actual practices may differ not only among countries but also among teachers within a country.

Edmore (2012) conducted a study on factors that affect the teaching of PE in Zimbabwe Chinhoyi urban schools. The study sought to find out the barriers that impede the teaching of Physical Education. The research design composed of mixed research paradigms. Data was collected through questionnaires, observation and document analysis. Random sampling was used to get the sample size for the study. The sample consisted of primary school teachers. The study findings showed that teachers lack Physical Education knowledge related to their college training to handle Physical Education programs. Random sampling was used on this study to select 200 participants. This reviewed study only focused on urban schools thus prompting the current study to focus on both urban and rural schools so as to get comprehensive data from respondents of schools in different setting therefore the current study is more detailed than the reviewed study. The reviewed study used only simple random sampling whereas the current study used stratified sampling. This method of sampling is preferred as it allowed equal representation of respondents.

Norman (2007) conducted a study in the USA on teacher competence on teaching PE in an integrated early childhood classroom. The participants were 100 teachers elementary and 100 high school teachers and 100 professors. The study established that teacher education reflect little commitment for teachers to effectively teach PE in an integrated classroom. The above study targeted teachers' right from elementary early childhood centers to the university whereas this current study only focused on primary schools. The array of findings regarding teacher training though informing on potential gains towards physical training in general fail to relate development competencies that constitute appropriate teacher training in PE with availability of relevant training materials and facilities. Besides, studies were mainly from contexts where training is conducted using advanced and sophisticated training facilities and materials. It was therefore incumbent to examine challenges teacher training in PE poses to its instruction in a context such as Nyamira south sub-county which is short of teaching materials. Most public primary school teachers in rural settings such as

Nyamira south sub-county mostly teach in schools in their home villages and are hardly exposed to technical know-how of emerging technology in PE.

2.3.4 Gender of a learner on implementation of PE instruction

Gender refers to biological make up that is; being either male or female in relations with handling PE lessons. Gender of a student can influence willingness of a student's participation in PE (Hardman, 2012). Research has established that there is consistent gender differences in terms of overall levels of P.A and school- based P.E, even after interventions to improve levels of, and attitude to P.A have been made (Morgan, 2004) girls are less likely to engage in P.A during play time because they complain of many things among them that teachers hardly give them a chance to choose activities which suit them, they don't have proper P.E kits, and that the media often emphasizes on male sports. To support this view, Hardman (2012) conducted a study on Muslim school girls' identity and participation in school based PE in English.

The intent of the study was to examine issues surrounding religious and ethnic identity and whether these conflicts with participation in school based PE. Social identity theory was utilized. The research instruments used were; in-depth semi-structured interviews. The study employed ethnographic research Design. The findings of the study were that girls perceive PE as a subject which allows for freedoms not found elsewhere in the school curriculum and therefore they recognized the benefits of PE. The reviewed study only targeted the girls but the current study included both boys and girls in the study. This was because students of both genders provided data that would enable the researcher gain in-depth understanding of the research problem. On the reviewed study, the researcher, only used one data collection instrument whereas the current study used two data collection instruments namely; the questionnaire and an observation checklist. The purpose of using two or more instruments was for the purpose of Triangulation. Triangulation increases validity of the instruments.

Hardman (2007) did a study on girls' participation in physical activity in schools in Wales. The purpose of the study was programs and initiatives to help to increase girls' participation in physical activity. The target population was teachers in charge of girls'

PE in every secondary school in Wales. The instruments for data collection were interviews and the questionnaire. The findings of the study were that many factors that affected girls' participation in PE included; historical development of sports, peer pressure, parental attitudes and coverage of women in the media, lack of changing rooms and all these factors contributed to girls' giving excuses not to participate in PE especially in gymnastics and aerobic. The reviewed study was conducted in a geographical area which is different from where the current study is conducted. Different countries have policies on how school policies should be implemented. Thus the current study was conducted in public primary schools in Kenya particularly in Nyamira South Sub County unlike the reviewed study which was conducted in secondary schools.

Murphy, Dionigi and Litchfield (2014) conducted a study on the factors affecting female participation in PE in Australian high schools. The study further intended to find out the strategies the teachers used to engage female students in participation in PE. Data collection was through interview. The sample consisted of five Australian PE teachers (1 male and 4 female). The findings of the study revealed that historically, female students have been positioned as 'the problem' and often blamed for their lack of engagement in the physical activity component of PE. Over time, it has become increasingly recognized by PE researchers that, the problem is more often located in the curriculum and pedagogical contexts within which girls are expected to participate and relates to the social construction of gender through PE.

Further these authors pointed out that there was continued prevalence of gender inequality and exclusion in often complex ways within the PE curriculum, structures and practices. Equally female students in rural and regional settings had additional factors affecting their participation in PE, such as lack of school sporting facilities and equipment. The respondents reported that the key strategies they include modified scoring in mixed gender activities, single gender classes, school policies and extra-curricular activities. This reviewed study only focused on high school students thus prompting this study to be conducted in primary schools.

Casey (2009) did a study on effects of single gender classes on students' performance in PE school in England. The study revealed that for certain activities this strategy was the most effective way of encouraging female students to actively participate in PE. One of the participants argued that segregation (having all boys groups and all girls groups) guards female students from being subjected to the pressure of performing in front of their male peers. This is because girls in regional towns felt embarrassed performing in front of people they see in the community on a daily basis. Therefore single gender classrooms often counteract the identified factors of female's embarrassment and unwillingness to participate in PE. The reviewed study was conducted in England a different locality from where the current study was being carried. This reviewed study only focused on single gender class as a factor influencing students' participation in PE but the current study not only investigate on gender of pupils as the only factor hindering PE implementation but the researcher investigated on other factors such as age of the pupils, teachers' attitude as well as teachers' level of training.

Runar and Kristjansdottir (2010) did a study in India. The focus of the study was on Icelandic 6th, 8th, 10th grade student girls, and their participation in Physical Education. The study was guided by a descriptive survey design. The target population was 3270 girls. The study found that girls' lower enrollment was organized sport clubs fully accounts for gender differences in frequency of overall physical activity, and largely accounts for gender differences in frequency of strenuous activity, and weekly hours of overall and strenuous activity (enrollment hypothesis). Furthermore, girls' higher sport club withdrawal rate accounted for a small but significant part of the gender difference in weekly hours of overall activity and frequency of strenuous activity (withdrawal hypothesis). No evidence was found to suggest that different activity levels of boys and girls enrolled in the clubs affected gender differences in levels of overall or strenuous physical activity (activity differential hypothesis). Other independent variables, i.e., perceived importance of sport achievement, sport and exercise related instruction, Physical Education experiences, and social modeling, did not significantly affect observed gender differences beyond the sport club variables. This reviewed study was conducted in India and it only sampled girls thus a leeway for

the current study which was conducted in Kenya and specifically in Nyamira South Sub- County. This current study targeted both boys and girls.

Trost, *et. al.,* (2012) did a study in African-American schools. The intent of the study was to determine if gender differences in physical activity could be accounted for by differences in selected social-cognitive determinants of activity behavior. Some 334 fifth grade, predominantly African-American students provided information regarding school Physical Education and the hypothesized determinants of activity behavior. Boys reported significantly greater participation in vigorous activities and in moderate to vigorous. Relative to girls, boys demonstrated higher levels of physical fitness, greater self-efficacy in overcoming barriers to physical activity, greater amounts of television watching, and higher levels of participation in community sports and physical activity organizations. When mean physical activity scores for girls and boys were adjusted for the effects of these determinant variables, the significant gender difference in physical activity remained. However, adjustment for self-efficacy in overcoming barriers and community sports reduced the gender gap by 5% and 7%, respectively. In contrast, adjustment for television watching increased the gender gap by about 8%. Results indicated perceived confidence in overcoming barriers to physical activity and participation in community physical activity programs are factors related to the gender difference in physical activity. This reviewed study was conducted in America which is a different background from where the current study was carried out. It was because of this reason that this study was conducted in Kenya and specifically in Nyamira South Sub-County so as to investigate the challenges to Physical Education implementation.

Hanlon *et. al.,* (2012) conducted a survey on disparity in structured physical activity and overall activity level in adolescence. The findings of the survey showed that adolescent girls are less likely to meet physical activity recommendations than boys are. This study examined the relative contribution of structured physical activity opportunities including Physical Education (PE) class and sports teams to overall activity levels for girls and boys. Data was collected from 591 students in 9^{th} –12^{th} grade students who completed the 2009 Philadelphia Youth Risk Behaviour Survey

were examined. The study was a longitudinal one. Logistic regression was used to estimate the relationship between PE and sports teams and physical activity levels. Models were stratified by gender to estimate gender differences. Results were that girls were less likely to be active than boys: 27.9% of girls were sedentary as compared to 10.6% of boys. PE class was not related to activity levels among boys, while highly active girls were seven times more likely to participate in daily PE than were sedentary girls. Playing on one or more sports teams was associated with low-moderate and high activity in girls; among boys, sports team participation was only associated with high activity. The study concluded that the structured physical activity opportunities of PE and sports teams might contribute more to overall activity levels in girls than boys. A more rigorous assessment of this hypothesis was warranted to inform efforts to promote activity levels in girls. Less than half the proportion of girls as compared to boys, achieve the recommended 60 minutes or more of activity per day.

The likelihood of developing chronic diseases such as obesity, type 2 diabetes, and high blood pressure significantly increased in sedentary as compared to active youth, and given the gender disparity in physical activity levels, this can translate to a relatively increased risk among girls. Given that, sedentary behaviours among youth continue into adulthood these negative health effects have the potential to become life-long afflictions, particularly among women. Understanding the factors that contribute to this gender disparity in physical activity, particularly among youth, could inform programming efforts. This reviewed study was a longitudinal study thus prompting the current study to do a cross sectional study because longitudinal study is prone to threats to internal validity for instance history, maturation and mortality. The reviewed study only focused on adolescence students but the current study included pre-adolescents on the study because all learners in a school environment are supposed to participate in Physical Education activities (Tuomilehto *et al*., 2001).

John *et al*., **(**2012) did a study on gender, perceived competence and the enjoyment of Physical Education in children in Canada. The study examined associations between gender, perceived athletic competence, and enjoyment of Physical Education (PE)

class over time in a cohort of children enrolled in grade four of ages 9 and 10.The total target population was 2262. The study assessed each student 5 times over a period of 2 years. The design that was used to examine change over time in enjoyment of PE was mixed effects modeling. The results showed that enjoyment of PE declined among girls but remained constant among boys. Higher levels of perceived competence were associated with higher PE enjoyment. A 3-way interaction between gender, competence, and time revealed that PE enjoyment was lowest and declined most markedly among girls with low perceived athletic competence. Among boys with low competence, enjoyment remained at a consistently low level.

The study concluded that lower perceived athletic competence was associated with low enjoyment of PE, and, among girls, with declining enjoyment. From the findings, it was recommended that interventions in a PE context that target perceived competence should be considered in future work. This reviewed study only sampled children who are of different gender but limited to age 9-10. However, the current study intends to generalize the results to all primary going children in Nyamira South Sub- County whose presumed age ranges between 6-14 years. The reviewed study was conducted in Canada a background that was geographically different from the current study. The current study was conducted in Kenya a locality which has different students with different perspectives about PE.

David Horney and Cameron (2009) carried out a survey on gender issues in Physical Education: female students' perspectives and experiences. The focus was to find out why girls are turned off by Physical Education teachers. The study results indicated that previous negative experiences in Physical Education, particularly during elementary school, were the number one reasons girls disliked Physical Education. Many girls had found previous Physical Education classes to be too competitive, and they felt that teachers showed gender bias and made students engage in intense activity, such as running laps or doing pushups as a form of punishment. They also felt that student athletes were favored and that teachers had minimal expectations for almost all girls. The reviewed study only focused on girls thus necessitating the current study to sample both boys and girls in order to gather their mixed opinions.

This kind of sample was deemed necessary because it enabled the researcher gather detailed information to enrich the findings of the study.

The large body of literature on gender and physical activity provides evidence of the centrality of gender matters in contemporary society. A study of challenges posed by gender on implementation of PE instruction in public primary schools in Nyamira south sub-county is therefore ideal since gender matters in the African context are culturally oriented and have not exhaustively been addressed by existing studies.

2.3.2 Age of a learner on Implementation of PE Instruction

For children and young people, physical activity and Physical Education are particularly useful in their health development. In order to improve cardio respiratory and muscular fitness, bone health, and cardiovascular and metabolic health biomarkers: Children and youth aged 5–17 should accumulate at least 60 minutes of moderate to vigorous-intensity physical activity daily. Amounts of physical activity greater than 60 minutes provide additional health benefits. Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week. For this age group, bone-loading activities can be performed as part of playing games, running, turning or jumping. To support this view, Stuart (2012) did a study on influence of age of a learner on active participation on physical activities in Australian schools. The purpose of the study was to determine teachers' views about age of a learner and whether it affects a learner's confidence to perform some activities for instance aerobics. The participants were pre-service teachers studying at a large regional Australian University. The findings of the study which was conducted on students attending both elementary and secondary schools revealed that learners at teenage stage were uncomfortable changing into sportswear.. The locality of the reviewed study was different from the current one.

Oguzhan (2010) did a study in Turkey. The purpose of the study was to find out the student misbehaviors encountered by Physical Education teachers and their frequency. The sample was composed of 102 Physical Education teachers drawn from primary

and secondary schools. Data was collected by use of a scale developed for Physical Education. The findings indicated that students at secondary levels were not active, they were not keen on PE lessons and they were withdrawn. This was associated with age of students. And this variance in age misbehavior was according to the grade level of a student. This reviewed study was conducted on both primary and secondary schools in Turkey which was far away from where the current study was conducted. Students in different countries are socialized differently depending on the education program being implemented. Therefore it was prudent to carry out a study focusing on Kenyan students in order to find out if age was a factor to PE instruction.

Robinson and Smithers (2003) conducted a study on exits from the profession. The purpose of the study was on why there was high turnover in both primary and secondary schools. The study design employed was a survey. Data collection was through use of interviews and questionnaires. The factors that were found to necessitate the teacher exits were workload, salary, the school situation, age of the teacher. This reviewed study focused on factors contributing to teacher turn over only. From the findings of the study, age of a teacher was identified as a factor affecting the teaching of all subjects in schools. However, the study did not point out on which subjects were affected thus prompting the current study to find out whether age of a teacher affects implementation of PE instruction. The reviewed study was conducted in a different country from the current study.

Jessica (2012) conducted a study on influence of age of a teacher on students' with and without learning disabilities participation in Physical Education. The focus of the study was to explore relationships between teacher's age and students' involvement in PE. Other variables like expectations of student educational attainment level of education and teachers experience were investigated. The participants of the study were children, youth, and students in grade one to six who were taught by a single teacher. The findings of the study revealed that students' participation in PE was impacted by teachers' age. Teachers felt less confident in their ability to instruct students on how to perform various activities. This study focused on teachers promoting the current study to focus on pupils.

A survey by U.S. Department of Health and Human Services (2013) showed that, 77% of children aged 9–13 years reported participating in free-time physical activity during period of seven days weekly. Further, the survey revealed that, only 29% percent of high school students had participated in at least 60 minutes per day of physical activity on each of the 7 days of the survey. 15.2% percent of high school students had not participated in 60 or more minutes of any kind of physical activity on any day during the 7 days before the survey. This reviewed study targeted both primary and high school students. In view of this, the current study only focused on primary school pupils because such a small population enabled the researcher gain an in-depth understanding of the research problem.

UNESCO (2008) on a survey conducted to establish the importance of PE on preschoolers showed that these cohorts of children should be physically active every day because exercises are important for their healthy growth and general development. For this age group, activity of any intensity should be encouraged, including light activity and more energetic physical activity. Light activity for children included a range of activities, such as: standing up, moving around walking and less energetic play. Children under 5 should not be inactive for long periods, except when they're asleep, watching TV, traveling by car, bus or train or being strapped into a buggy for long periods. There was growing evidence that such behavior could increase their risk of poor health. The reviewed study targeted only preschoolers and therefore the current study targeted primary school children in whose age range is 6-14. The reason of including this group of children in the study was to gather their views and thus compare them with those of the reviewed pre-schoolers.

Kirui, Langat and Rop (2014) did a study on assessment of essential PE equipment and facilities in Teacher training colleges in Kenya. The purpose of this study was to assess the adequacy of essential facilities and equipment for training pre-service teachers in Physical Education in Teacher Training Colleges (TTCs) in Kenya. Gross *et. al.,* Model of implementation of an innovation guided the study. Mixed-methods approach and descriptive survey research design were used in the study. The study

targeted essential Physical Education facilities and equipment in selected TTCs in Rift Valley Zone, Kenya. Observation schedule and document analysis were mainly used to collect data to inform on the research question. Descriptive (percentages, means, standard deviations, charts, and graphs) statistics were used to analyze the data. It was found that there were inadequacies in the quality and the quantity of such important influential factors like facilities and equipment in TTCs. The study recommended that those concerned with curriculum design and development ought to set up a policy on minimum standards of facilities and equipment required for effective training of pre-service teachers in TTCs in Kenya. The reviewed study was conducted in teacher training colleges thus necessitating the current study to be carried out in primary schools.

Cherishe (2011) conducted a study on integrated PE offered to in-service teachers in Zimbabwe. The study explored the views of in-service teachers on whether special education is offered on PE programs while they undertake training. The sample included 76 teacher trainees at Great Zimbabwe University. Data collection was by use of questionnaire. Data was analyzed through descriptive and inferential statistics. The results were that no training was offered on how to handle children with special needs. This reviewed study only focused on teacher trainees but the current study will focus on pre-service teachers. Further, the study revealed that the trainees believed that the present Zimbabwe education curriculum did not meet the needs of challenged children and this affected their participation in PE lessons.

Kate (2010) conducted a study on barriers to providing PE and PA in Victorian state schools in Australia. An on-line questionnaire was completed by 115 Physical Education teachers to establish the barriers to their implementation of Physical Education in Victorian state secondary schools. The barriers perceived by teachers to impact on students' participation in school-based Physical Education and physical activity were examined. The barriers to the provision of Physical Education were found to be largely institutional, although two-thirds of respondents recognized their own difficulties in engaging students when teaching as potential obstacles to student participation. Students were also perceived to be influenced by their own peers, low

levels of interest when choosing to participate. An awareness of these barriers has implications for Physical Education teaching, curriculum design, teacher training and adolescent participation in the school environment. This study was conducted in Australia a different background from where the current study is being carried out. The current study will be conducted in Kenya and particularly in Nyamira South Sub-county.

According to Morgan and Hansen (2008) barriers within schools that restrict teachers providing Physical Education programs in Canada have been classified by as being either institutional (outside the teachers' control) or teacher-related (arising from the teacher's behavior). The simplicity of this classification enables it to be applied to both primary and secondary school settings. Early research by this same author highlighted many institutional barriers to include 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. Other barriers include 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.

Most teacher related barriers have been reported in primary school studies. 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. The reviewed study focused on both primary and secondary schools but this current study will focus on primary schools only. The reviewed study was conducted in Canada whereas the current study will be conducted in Kenya and particularly in Nyamira South Sub-county.

2.4 Chapter Summary

Chapter two has reviewed empirical studies related to challenges to implementation of PE instruction. Based on the reviewed literature it was revealed that most of the researches were conducted in different geographical backgrounds from the current study. For instance, Wanyama (2012), Oguzhan (2010) and Hardman (2007) conducted their studies in United Austria, Turkey and Wales respectively. It was observed that some reviewed studies targeted only teachers (Robinson & Smithers, 2003; Atoni, 2013). Therefore, given the critique of the reviewed studies, it is worth noting that no study has tackled the challenges to implementation of instruction of PE in public primary schools in Nyamira South Sub-County, Kenya. This was the gap this study seeks to fill.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter describes the research design, study area, study population, sampling procedures, data collection procedures and research instruments, validity and reliability, data analysis and ethical considerations.

3.2. Research Design

According to Kothari (2004) a research design is a plan used to show how all major parts of the research project work together to address the research questions. It constitutes the blue print for the collection, measurement and analysis of data. In this study, descriptive survey research design was used. The choice of the descriptive design was informed by the observational nature of this quantitative study. There was need to give an accurate portrayal of PE instruction as it is practised in the study context which as observed by Polit and Hungler (2004) could best be done using descriptive studies. In the present study, the descriptive approach was particularly appropriate because an accurate and authentic description was required of challenges that faced implementation of PE instruction in public primary schools in the sub-county.

3.3. Study Area

The study was conducted in public primary schools in Nyamira South sub-county. The sub-county is one of the five sub-counties that constitute Nyamira County and according to the County development profile (2013), this sub-county covers an area of 179 Km^2. The choice of the study area was informed by several factors. First, being in Nyamira County, the area's topography is mostly hilly consistent with the whole County for which Kiabonyoru, Nyabisimba, Nkoora, Kemasare hills and the Manga ridge are the most predominant features. The area therefore provided an ideal setting for examining implementation of PE instruction considering that physical activity and healthy living were necessary factors for maneuvering the hilly terrain.

Secondly, Nyamira County in its annual development plan 2015/2016 recognizes the need to engage the youth in physical activity and sports. Consequently, funds were set for among others: starting of a talent academy at Kiabonyoru High School to cater for boys and girls in primary and secondary schools; and Ekerubo Gietai Institute for men and women; purchase and provision of sports Equipment County wide; organization and participation in sports and competitions and holding of clinics; and capacity building for sportsmen / women coaches across the county (Nyamira County Government, 2016). In the event that primary schools provide a basis for nurturing talent, the area provided an ideal locale for examining challenges facing implementation of PE in the primary schools so as to inform implementation of these noble projects/programmes.

3.4. Target Population

The study targeted teachers drawn from the six zones that comprise the sub-county. A total of 1004 teachers were distributed in public primary schools in the sub-county as shown in Table 3.1. The choice of teachers was informed by the need to investigate challenges to implementation of PE instruction from the teacher perspective given that teachers are tasked with curriculum implementation. It is worth noting that whereas pupils could have had some valuable information, they lacked informed consent to participate in a study of such magnitude (Wiles, Heath, Crow & Charles, 2005). The unit of analysis was therefore the individual teacher.

Table 3.1: Target Population

Zone	Number of teachers
Keera	144
Nyamaiya	196
Gesiaga	114
Kebirigo	208
Nyagachi	118
Township	224
Total	**1004**

Source: http://www.teachersonline.go.ke/masterbasic.aspx (retrieved on 24th October, 2016)

3.5 Sample size and Sampling procedure

The sample size for the present study was derived using the Krejcie and Morgan's 1970 table for determining sample size (see appendix IV). A sample of 278 was therefore selected for the study. Both stratified and simple random sampling techniques were used to select the required 278 public primary school teachers. First the sub-county was stratified in terms of the six zones. The number of teachers drawn from each zone was proportionate to the population of teachers in each zone relative to the entire sub-county (see Table 3.2).

Table 3.2: Sample Size

Zone	Number of teachers	Number in sample
Keera	144	$\frac{144}{1004} \times 278 = 40$
Nyamaiya	196	$\frac{196}{1004} \times 278 = 53$
Gesiaga	114	$\frac{114}{1004} \times 278 = 32$
Kebirigo	208	$\frac{208}{1004} \times 278 = 58$
Nyagachi	118	$\frac{118}{1004} \times 278 = 33$
Township	224	$\frac{224}{1004} \times 278 = 62$
Total	**1004**	**278**

Source: Researcher (2016)

Simple random sampling was then used to select the respective teachers from each zone. All teachers in each zone were assigned random numbers used to select the required number from the respective zone. Simple random sampling was used since by being random it offered every teacher equal chances of selection and therefore was deemed to be more representative.

3.6 Data Collection Instruments

The study used two data collection instruments; questionnaire and observation checklist. The observation checklist was used in order to support the questionnaire

responses. The researcher used the two instruments for purposes of triangulating data collection.

3.6.1 Questionnaire for Teachers

Choice of the questionnaire was based on the fact that it is a well established tool within social science research for acquiring information on participant social characteristics, present and past behaviour, standards of behaviour or attitudes and their beliefs and reasons for action with respect to the topic under investigation (Bulmer, 2004). Research on challenges facing implementation ideally requiring information on some of these constructs thereby justifying the use of the questionnaire. Besides, Ogula (2011) observes that the questionnaire is suitable for collecting basic descriptive data from a large sample such as the one used in the present study.

The teachers questionnaire was administered to teachers and was designed to capture information on background characteristics (gender, age, educational and source of knowledge and skills on PE) as well as the key variables under study namely; teacher training, teacher's attitude towards PE, learner's age, learner's gender, and status of implementation of PE instruction. Consequently, the questionnaire comprised six sections.

Section A sought information on the demographic information of teachers. Section B focused on finding out the training teachers had on PE instruction. Section C investigated on the attitude teachers held towards PE instruction. Section D sought to establish the average age of class 7 pupils and associated behaviour that could impact on PE instruction. Section E investigated gender preferences towards PE participation among pupils. The last section named Section F focused on establishing the status of PE instruction in public primary schools in Nyamira south sub-county. Closed ended questions ensured that the questions in the various categories were answered as per the research questions using a likert scale on the other hand; open-ended questions gave the respondents liberty to express their views.

3.6.2 Observation Checklist

Observation of ongoing PE instruction was made during a few sampled PE lessons. An observation checklist was employed to verify whether or not PE lessons were

conducted as planned for. In particular, observations were made on among others; see what role the PE teacher played during instruction; see whether there were adequate materials for instruction and their suitability; find out the mode of dressing during PE instruction; to determine how the PE designated area was being utilized; and to find out the level of pupil participation in activities (Haerens *et al*., 2013).

3.7 Validity and Reliability of Research Instruments

Validity and reliability are two key considerations required of data collection instruments (Golafshani, 2003). Ellen (2011) contends that validity and reliability enable researcher to draw assured conclusions with regards to individual characteristics under study. For this reason the instruments were checked for their validity and reliability.

3.7.1 Validity

Validity of a questionnaire refers to the extent to which it measures what it is supposed to measure (Oso & Onen, 2005). Two forms of validity were conducted for this study; face and content validity. Face validity was relevant for the appearance of the teacher questionnaire and observation checklist. The researcher, with assistance of the supervisors ensured that items were legible and arranged systematically. Content validity was necessitated by the need to establish the extent to which the measures adequately represented all facets of teacher and learner oriented challenges to implementation of PE instruction (Abdullah, 2015). Expert reviews of instruments using objectives and specifications were sought from supervisors and other physical activity and sporting experts to achieve high levels of content coverage. Key areas requiring grammatical correction among others were pointed out and addressed.

3.7.2. Reliability

The questionnaire incorporated both open and closed ended questions to facilitate proper capturing and analysis of the variables of the study. The reliability of the questionnaire was verified through examination of internal consistency of the measurement scales. This was achieved by computing Cronbach's alpha coefficients on data collected through piloting of the developed questionnaire among 20 public

primary school teachers drawn from the neighbouring Nyamira North sub-county. The SPSS 'reliability analysis' command was used to generate these coefficients. Nyamira north sub-county was chosen for piloting owing to the fact that it is equally faced with a terrain similar to that of Nyamira south sub-county and therefore has similar challenges. Reliability coefficients of the six measurement scales used in the study were as presented in Table 3.3.

Table 3.3: Reliability Coefficients

Scale	Number of items	Cronbach's Alpha
Teacher Training	8	.901
Teacher attitude	9	.895
Learner Age	7	.725
Learner Gender	7	.770

The coefficients presented in Table 3.3 revealed that with the exception of all the scales achieved the recommended reliability level of 0.7 (Hair *et al.,* 2009). This implies that the scales in question had a high degree of internal consistency among the measurement items.

3.8 Data Analysis

Data was analyzed using both descriptive and inferential statistics. Frequencies and percentages were used to summarize teacher's background characteristics. Means and standard deviations were used to describe prevailing levels of teacher training in PE; teacher attitude towards PE; learner gender perspectives; and learner age. Thematic analysis was employed in analysing recurrent themes emanating from PE lesson observations. Pearson Correlations were used to find out how the conceptualized independent variables related with implementation of PE instruction after which multiple regressions were then used to model the magnitude of challenges posed to implementation of PE instruction by the identified teacher and learner factors.

3.9 Ethical Considerations

The study was undertaken in consideration of ethical issues in social science inquiry. The researcher ensured that the process of collecting, analyzing, and interpreting data was done in a way that respected the rights of participating teachers. Specifically, prior to data collection, an introductory letter was prepared for the purpose of seeking informed consent from respondents to participate in the study. Details revealing the purpose of the study and guarantee of anonymity and confidentiality were included in the letter. This included the assurance that the study was only for academic purposes and not for circulation to other parties. To ensure anonymity, respondent's names were not required. Confidentiality was assured by the researcher taking responsibility to protect all data gathered within the scope of the study.

The study also ensured that the respondent's right to privacy was guaranteed. This is the freedom of an individual to determine the time, extent and circumstances under which the private information was to be shared with or withheld from others. The teachers were therefore interviewed only at their convenient time. The researcher sought approval from the University to apply for a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). A copy of the permit was forwarded to Nyamira South Sub County Director of Education through which he was informed of the intentions of the study. A letter of introduction was written to the school heads by the CDE.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The purpose of this study was to establish challenges of implementation of physical education instruction in public primary schools in Kenya. This study was conducted in public primary schools drawn from Nyamira South Sub-County. Data for analysis were collected from questionnaire from PE teachers, and observations of standard seven PE lessons. This was necessary so as to triangulate data sources and improve the validity of the study findings (Hussein, 2009).

In line with data analysis processes, data were first collected, prepared and cleaned (Francis, 2005). This involved setting up the structure of the data file, coding and entering data into the SPSS software, and cleaning the data for errors. Descriptive statistics were then used to explore data for prevailing levels of the independent and dependent variables in the study sample. Regression analysis was used to establish how identified challenges impacted on implementation of PE instruction.

4.2 Response Rate

Data for compilation of this study were collected from PE teachers drawn from public primary schools in Nyamira south sub-county. Out of a total of 278 teacher questionnaires send to the field, a total of 249 usable questionnaires were returned. This corresponded to a response rate of 89.6%. This response rate was deemed adequate since as noted by Fowler (2002), the whole point of conducting a study is to obtain useful, reliable and valid data in a format that makes it possible to analyze and draw conclusions about the target population. In addition PE lesson observations were successfully made in two classes (one lower and another upper) from 6 schools selected at random from each of the six zones of the sub-county.

4.3 PE Teachers Background information

The background information of the respondents was assessed in terms of gender, age, level of education, and the source of their knowledge and skills in PE. Results presented in Table 4.2 revealed the following information. With regards to gender, an overwhelming majority (73.9%) were female teachers. Regarding age distribution, most of the respondents were aged above 40 years (54.6%); 28.5% were aged between 36 and 40 years; 10.8% were aged between 31 and 35 years. Only a small proportion (6.0%) was aged between 26 and 30 years. The level of education distribution indicated that most (42.1%) of the teachers were certificate holders, although a good proportion hold a diploma (36.5%). Those who received knowledge and skills on PE from college (95.1%) were dominant.

Table 4.1: PE Teachers Background Information

Characteristic	Category	Frequency	Percent
Gender of respondent	Male	65	26.1
	Female	184	73.9
	Total	**249**	**100.0**
Age of respondent	26-30	15	6.0
	31-35	27	10.8
	36-40	71	28.5
	over 40	136	54.6
	Total	**249**	**100.0**
Level of education	Certificate	105	42.1
	Diploma	91	36.5
	Degree	41	16.5
	Masters	12	4.9
	Total	**249**	**100.0**
Reception of knowledge and skills on PE	College	237	95.1
	seminars and workshops	3	1.2
	personal talent and skills	6	2.4
	PE team activities	1	.4
	furthering studies	2	.8
	Total	**249**	**100.0**

The implication of these results is that most of the teachers teaching PE in public primary schools in Nyamira south sub-county are female. This is consistent with

teacher trends (National Centre for Education Statistics, 2015) which show that in 2011–12, some 76 percent of public school teachers were female. Besides, Kelleher (2011) shares these views in asserting that the presence of a significant proportion of women teachers - particularly in the early childhood and primary levels - is a long-standing phenomenon that characterizes the education systems of many countries. Australia, Canada and the United Kingdom are reported as examples of countries often referred to as having 'feminized' teaching professions, denoting that women represent a significant majority of the teaching workforce.

The finding that a majority had certificate qualification and that their knowledge and skills were acquired in college is reflected in the experience of teaching PE. This is so because PE is a compulsory subject in teacher training colleges and does not segregate between male and female students. Local primary teacher training colleges only offer P1 certificates thereby corroborating these findings. The finding that most of the teachers were aged above 40 years and 5% had master's degree contradicts findings by National Centre for Education Statistics (2015) which show that 44 percent were under age 40 and 56 percent had a master's or higher degree. The implication then is that most primary school teachers in Nyamira South sub-county are elderly with no ambitions for further studies.

4.4 Teacher Attitude towards Implementation of PE Instruction

Research question one sought to establish teacher attitude towards implementation of PE in public primary schools. The structured teacher attitude scale was analyzed using mean response scores and associated standard deviations. Teacher attitude towards implementation of PE instruction was measured using nine items reflecting on possible attitudes elicited by teachers towards PE instruction. Respondents were asked to tick the response that best described their position with respect to practices used to implement PE in their respective schools, and to identify any other practices related to implementation of PE instruction. Responses were elicited on a 5-point scale ranging from 1-strongly agree to 5-strongly disagree.

Results presented in Table 4.2 portray a negative attitude among teachers in public primary schools in Nyamira South sub-county towards PE instruction. Whereas a

majority of teachers tended to cumulatively agree that PE provides a good opportunity for learners to nurture their talents (95.9%) and cumulatively disagreed that PE lessons should be handled by student teachers only (72.9%), most of them however fell short on most PE requirements. Majority of teachers(n=175) disagreed that they always attended to their lessons (71.1%); that they always prepared schemes and lesson plans for PE (62.3%); and that PE as a subject is as relevant as other subjects in the school curriculum (68.7%). They tended to agree that they found teaching PE boring (56.5%); that teaching in upper primary should focus on examinable subjects (50.4%); and that teaching PE consumes time that could have been used on important subjects (49.6%); and that they found teaching PE degrading to them (57.9%).

Table 4.2 : Teacher Attitude Towards PE Instruction

Attitudinal items	SA		A		UN		D		SD	
	n	%	n	%	n	%	n	%	n	%
1.I always attend to all of my PE lessons	7	2.8	33	13.4	2	.8	175	71.1	29	11.8
2.I always prepare schemes and lesson plans for PE	10	4.0	38	15.4	1	.4	154	62.3	44	17.8
3.I find teaching PE boring	8	3.3	139	56.5	12	4.9	68	27.6	19	7.7
4.PE lessons should be handled by student teachers only	13	5.3	42	17.3	11	4.5	129	53.1	48	19.8
5.PE provides a good opportunity for learners to nurture their talents	114	46.7	120	49.2	1	.4	7	2.9	2	.8
6.Teaching in upper primary should focus on examinable subjects only	53	21.5	124	50.4	1	.4	49	19.9	19	7.7
7.PE as a subject is as relevant as other subjects in the school curriculum	52	21.1	16	6.5	3	1.2	169	68.7	6	2.4
8.Teaching PE consumes time that would have been used on important subjects	122	49.6	52	21.1	5	2.0	54	22.0	13	5.3
9.I find teaching PE degrading to me	143	57.9	27	10.9	15	6.1	8	3.2	54	21.9

SA-strongly agree; A-agree; UN-unsure; D-disagree; SD-strongly disagree
Source; Survey Data (2016)

These results show that despite teacher's awareness on the potential PE offers for learners to nurture talents, they hardly put in efforts to improve its instruction. Not

preparing professional documents and failure to attend lessons implies that teachers do not take PE seriously. By agreeing that teaching PE is degrading, they showed a negative attitude towards PE instruction.

These results agree with existing literature by showing that teacher attitude contributes immensely to non-implementation of PE instruction in Nyamira South sub-county. This is manifested through lack of preparation for the subject, non attendance to lessons, and general apathy towards teaching it. This is contrary to views by Howie (2012) that teachers need to create a supportive and nurturing environment for their students. It is therefore apparent that the environment for learning PE in Nyamira South sub-county is not supportive.

These results are consistent with comments made by a host of teachers while answering the unstructured section of the attitude scale (Table 4.3). When asked whether there were other practices related to implementation of PE instruction, respondents intimated that despite

PE's potential to open up opportunity for students to nurture their skills and get captivated to give out knowledge; lack of PE uniforms and rooms to change or bathrooms to shower was a major challenge to the implementation of PE instruction. Besides, it also emerged that teachers lack motivation to teach non examinable subjects such as PE.

Table 4.3: Teacher Comments on other Practices on Implementation of PE Instruction

Question	Comment
Are there other practices related to implementation of PE instruction?	✓ Most boys and girls complain of pain and inactivity after the PE lesson. ✓ Teachers see PE as a waste of time ✓ most teachers find PE as a subject that should be taken solely by pupils as a normal activity ✓ PE opens up opportunity for students to nurture their skills ✓ yes, most schools have no PE uniforms, no rooms to change, no bathrooms to shower ✓ yes, more time is given to the examinable subjects ✓ Yes, reward to be awarded to teachers who perform their duties in PE lesson so as to encourage more to join in the training. This will nature the future generation in the society ✓ yes, the teachers are not motivated so they don't want to carry the burden of teaching subjects which are non-examinable like PE

Source: Survey Data (2016)

These results are contrary to findings by Barney and Deutsch (2009) which revealed that classroom teachers in Oklahoma and Utah were of the view that PE was important for students in the sense that it could help combat the problem of obesity. Besides, it was argued that PE could encourage students to have an active lifestyle or to be physically active. These findings on negativity among teachers support findings by Atoni (2013) which reported that teachers' perception on PE teaching is negative. This support occurs despite the different contexts of the studies. Nyamira sub-county is one of the sub-counties renowned for producing athletes who compete mainly in long races. There should therefore be an inherent liking for PE among individuals in this area. The negative attitude exhibited by teachers towards PE instruction is further

likely to compromise Nyamira County initiatives for talent academy considering that the academy is to be situated in a school.

The finding showing that teachers in public primary schools in Nyamira south sub-county have a negative attitude towards PE instruction echo findings by Atoni (2013). Atoni established that PE implementation was low in public primary schools in Eldoret Municipality, and that the teachers' perception on PE teaching was negative. This then goes to point towards a trend in Kenya where teachers in public primary schools don't regard PE as an important subject and who view its teaching in the negative light. This growing list of schools can now include Nyamira south sub-county primary schools.

4.5 Teacher Training and Implementation of Physical Education Instruction

The second research question sought to determine in what way teacher training poses a challenge to implementation of PE instruction in public primary schools. A total of eight items were used to examine elements of teacher training in physical education. Respondents were asked to indicate agreement or disagreement with the items. As shown in Table 4.4, teachers tended to agree with all items measuring teacher training. This implies that teachers were adequately exposed to key requirements of PE instruction during pre-service. These included basic positions of exercise (82.6% cumulative agreement); use of different methods and styles of teaching PE (70.6% cumulative agreement); use of real teaching skills in PE (94.3% cumulative agreement); correct planning for teaching PE (66.4% cumulative agreement); and measurement in PE (74.5% cumulative agreement)

Table 4.4: Teacher Training in PE Instruction

Training Items	SA		A		UN		D		SD	
	n	%	N	%	n	%	n	%	n	%
1.The physical exercise course adequately prepared me to know basic positions of exercise	77	31.8	123	50.8	2	.8	30	12.4	10	4.1
2.The teaching methods course enables me to use different methods and styles of teaching PE	55	22.4	118	48.2	2	.8	57	23.3	13	5.3
3.The practicum course prepared me to use real teaching skills in PE	53	21.5	179	72.8	2	.8	9	3.7	3	1.2
4.Exposure to PE curriculum enables me to know the correct planning for teaching PE	24	9.8	138	56.6	2	.8	60	24.6	20	8.2
5.The measurement and evaluation course enables me to build and use a group of tests and measurements in PE	37	15.2	144	59.3	5	2.1	48	19.8	9	3.7
6.Facilities for training in PE were adequate	32	13.2	150	61.7	4	1.6	44	18.1	13	5.3
7.Reference materials for training in PE were easily available	21	8.6	170	69.7	8	3.3	32	13.1	13	5.3
8.The PE management course and organization course make me know the way of managing different of sports	26	11.0	171	72.5	5	2.1	23	9.7	11	4.7

These results imply that PE teachers concur that they have undergone their training properly and therefore training should not be a hindrance to implementation of PE instruction. Exposure to a variety of courses during training enables them to adhere to correct practices when teaching. These include correct planning for the subject, use of diverse teaching methods so as to cater for individual pupil needs and also to take care of the large class sizes, knowing basic positioning, and managing a diverse range of sports. Comments that emerged when respondents were asked to enumerate other practices related to teacher training (Table 4.5) indicated that PE training does not adequately expose trainees on how to handle students with special needs. As a consequence, most are often not engaged in PE activities.

Table 4.5 Teacher Comments on other Practices of PE Instruction related to Teacher Training

Question	Comment
Enumerate other practices of implementation of PE instruction related to teacher training	✓ there is no motivation to tutors who claim low pay hence they don't appreciate the importance of PE ✓ children to bring home made facilities and materials for PE ✓ teaching practice session was too short to make one a teacher ✓ the school should provide pupils with facility to increase capacity of PE lessons ✓ special needs students were not catered for

These findings showing that teachers have undergone appropriate training for PE instruction are consistent with views by Bless et al (2006) that teacher training is a crucial factor in PE instruction. These results also support findings by Morgan and Caputo (2009) that teachers who demonstrate good knowledge and skills in PE show readiness to participate. These findings however contradict findings by Edmore (2012) that teachers lack PE knowledge related to their college training to handle PE programmes. Such a contradiction implies that teachers' training in PE could be contextual and that some contexts may offer quality training while others may not. Indeed in the present context some teachers viewed the teaching practice session being inadequate to master requisite skills and knowledge and could find themselves concurring with Edmore's views.

The study therefore brings in a dimension that shows that even when teachers are appropriately trained, they can still fail to implement instruction as a result of other issues. The situation with Nyamira highlights need for continuous appraisal of teachers in an effort to have them follow proper practices for PE instruction. This in a way is supportive of findings by Young (2012) that focusing on teacher's knowledge of the subject matter, and how students understand and learn should be what matters.

4.6 Learner Gender and Participation in PE Activities

Research question three sought to find out from teachers, how learners' gender is a challenge to implementation of PE instruction in public primary schools. Consequently descriptive statistics were first used to establish existing gender

perspectives on participation in PE. A total of seven items were used to examine student's participation in PE activities. Respondents were asked to indicate their agreements or disagreements with the items selected to reflect learner participation.

Results presented in Table 4.6 show mixed reactions among respondents on the question of gender and participation in PE. Whereas respondents tended to agree that PE knows no sex (95.9% cumulative agreement) they also observed that girls get encouraged to participate in PE activities when they see female teachers conducting PE lessons (94.2% cumulative agreement). Respondents also agreed that girls preferred being separated from boys during PE lessons (71.5%). They were also of the view that girls were forced to participate in PE (65.1%). There were disagreements that both boys and girls participate equally actively during PE lessons (56.6%); that both boys and girls participate in similar activities without segregation (61.2%); and that all PE teachers were male (60.6%).

Table 4.6 Learner Gender and Participation in PE

	SA		A		UN		D		SD	
	n	%	n	%	n	%	n	%	n	%
1.PE as a subject knows no sex	82	33.9	150	62.0	3	1.2	5	2.1	2	.8
2.Both boys and girls participate actively during PE lessons	20	8.3	81	33.5	2	.8	137	56.6	2	.8
3.Girls are forced to participate in PE	4	1.7	155	65.1	2	.8	61	25.6	16	6.7
4.Both boys and girls participate in similar activities without segregation	16	6.6	67	27.7	3	1.2	148	61.2	8	3.3
5.Girls prefer to be separated from boys during PE	33	13.6	173	71.5	3	1.2	30	12.4	3	1.2
6.All PE teachers are male	4	1.7	1	.4	2	.8	146	60.6	88	36.5
7.Girls are encouraged when they see female teachers conducting PE lessons	68	28.1	160	66.1	1	.4	8	3.3	5	2.1

The implication of these results is that PE teachers in Nyamira sub-county include females and this encourages girls to participate in PE activities. Considering that students do not have PE kits, girls often prefer to be separated from boys during PE lessons. These results are consistent with results from the unstructured section of the

learner gender scale (see Table 4.7). When asked to comment further on other gender related behavior influencing implementation of PE instruction, respondents noted that the issue of PE kits is a serious let down to implementation of lessons. They noted that if both boys and girls have PE costumes, they do not fear doing PE together. Shyness amongst girls was also reported as interfering with their active participation in PE activities. Respondents reported that girls tended to shun participation in PE due to shyness and low esteem. It was further revealed that girls mostly shied away from PE when attending their periods and when their foundation clothes are worn out.

Table 4.7 Teacher Comments on other Practices of PE Instruction related to Learner Gender

Question	Comment
Comment further on other gender related behaviour influencing observed among pupils during PE instruction	✓ bigger girls do not participate in PE due to shyness and low self esteem ✓ both boys and girls may perform dangerous activities if they are not well monitored ✓ there is need to provide costumes to wear during PE ✓ Girls only shy off during PE only when they have their periods on or their foundation clothes are worn out ✓ if both boys and girls have the costumes they don't fear doing PE together ✓ the boys appreciate both gender tutors as opposed to girls ✓ the boys feels captivated if the girls are included in the PE sessions contrary to the attitude of the girls

The findings particularly relating to lack of PE gear being an impediment to implementation of PE instruction are consistent with others. Murphy, Dionigi and Litchfield (2014) established that among key factors that curtail girl's participation in PE is lack of school sporting facilities and equipment. Besides, results showing that big girls in the present study context shy off from PE support findings by Casey (2009) that girls in regional towns feel embarrassed performing in front of people they see in the community on a daily basis.

The findings showing that girls in public primary schools in Nyamira south sub-county were not as active in PE activities support several other findings in existing literature. Brent *et al.*,**(**2012) in a study that focused on gender, perceived competence and the enjoyment of Physical Education in children in Canada, showed that enjoyment of PE declined among girls but remained constant among boys. These findings further support findings by Hanlon *et al.,* (2012) that less than half the proportion of girls as compared to boys, achieve the recommended 60 minutes or more of activity per day.

The finding in the current study that girls mainly shy to participate in PE activities is consistent with findings by David, Horney and Cameron (2009) that previous negative experiences in physical education, particularly during elementary school, were the number one reasons girls dislike participation in physical education activities. The essence of these findings is that girls in most study contexts dislike the rigor in some physical education activities that tend to expose some of them to ridicule particularly if their clothing is not ideal and therefore shy off most of the activities or otherwise offer minimum participation.

4.7 Learner Age and Participation in Physical Education Activities

The fourth research question for the present study sought to establish whether learner age has any influence on implementation of PE instruction. Assessment of learner age and participation in PE in public primary schools in Nyamira sub-county was conducted via teachers questionnaire. Teacher perceptions of learner age and participation in PE were measured using seven questionnaire items. Respondents were asked to indicate their agreements or disagreements to the seven items selected to reflect pupil's age and participation. Responses were elicited on a 5-point scale ranging from 1-strongly agree to 5-strongly disagree. Results presented in Table 4.8 revealed that on the overall, teachers perceive learner age to be a factor in the implementation of PE instruction in Nyamira South sub-county. More specifically, respondents tended to agree that whereas pupils in lower primary tended to exhibit enthusiasm for PE instruction (59.7%), their counterparts in class seven were mainly conscious of their sexuality (65.3%) and often felt shy to participate in PE (74.7%). Moreover, pupils in class seven perceive themselves to be past the age of participating

in PE (62.3%) and would therefore prefer to use the allocated PE time to complete assignment (60.3%).

Table 4.8: Learner Age and Participation in PE

	SA		A		UN		D		SD	
	n	%	n	%	n	%	n	%	n	%
1.Most pupils in class 7 are aged 12 years and above	73	29.4	164	66.1	1	.4	9	3.6	1	.4
2.Pupils in class 7 are conscious of their sexuality	74	29.8	162	65.3	6	2.4	5	2.0	1	.4
3.Pupils in class 7feel that they are past the age for participating in PE	30	12.1	154	62.3	2	.8	53	21.5	8	3.2
4.Pupils in class 7feel shy to participate in PE	40	16.3	183	74.7	1	.4	18	7.3	3	1.2
5.Pupils in class 7 often request to use PE lessons to complete assignments	35	14.2	149	60.3	4	1.6	51	20.6	8	3.2
6.Pupils in lower primary are mostly aged below 12	66	26.6	170	68.5	1	.4	6	2.4	5	2.0
7.Pupils in lower primary show enthusiasm for PE	97	39.1	148	59.7	0	.0	2	.8	1	.4

These results clearly indicate that PE teachers in Nyamira sub-county find it challenging to engage class seven pupils in PE activities. This may be impacting negatively on the envisaged implementation PE instruction. Clearly emerging from the teacher's responses is that class seven pupil's show apathy towards PE believing that it should be taught to lower primary pupils. This is indeed strengthened by results showing that lower primary pupils are often enthusiastic in PE participation. The results showing apathy towards PE among class seven pupils support findings by Stuart (2012) which show that learners who are at teenage stage were uncomfortable changing into sportswear and are consequently unwilling to participate in PE. Similar sentiments were echoed by Oguzhan (2010) when observing that students at an advanced age were not active and keen on PE lessons and were often withdrawn.

The descriptive and observation results pointing to enthusiasm among lower primary pupils towards PE support a host of other findings and strengthen the notion that

physical education is crucial for preteen development. Oguzhan (2010) showed that students at secondary levels were not active; they were not keen on PE lessons and appeared withdrawn. These findings also mirror findings by a survey by U.S. Department of Health and Human Services (2013) which showed that, 77% of children aged 9–13 years were reported to participate in free-time physical activity during period of seven days weekly.

The findings that lower primary children in public primary schools in Nyamira south sub-county actively participate in diverse PE activities that are rigorous further corroborates findings by UNESCO (2008),which advocate for light and more energetic physical activities for proper growth and development among children. This therefore calls for a framework that can sustain this kind of participation across all age groups in order to maximize the holistic growth derived from PE participation. Besides, awareness of ways that can boost active participation, in spite of peer pressure and low levels of interest would go a long way in sustaining this interest.

4.8 Descriptive Analysis of Status of Implementation of PE Instruction in Public Primary Schools in Nyamira Sub-County

Implementation of PE instruction was conceptualized as the dependent variable in this study. Consequently, Examination of implementation of PE instruction in public primary schools in the study area was conducted from two perspectives. First, teacher's views with regards to implementation were sought using teacher questionnaire. Second, observations were made during PE instruction to confirm how effective the instruction implementation was.

4.8.1 Teachers Views on Implementation of PE Instruction

PE implementation measurement scale consisted of twelve items measuring various aspects of PE instruction. Respondents were asked to tick a response that best described their views with regards to how suggested aspects of PE instruction prevail in their respective schools. Responses were elicited on a five point Likert type scale ranging from 1-strongly agrees to 5-strongly disagree. Results shown in Table 4.9 portray a picture of poor implementation of PE instruction in Nyamira south sub-

county. There were disagreements with most of the expected practices required for appropriate implementation of PE instruction. This included: all classes' participation in PE (64% disagreement); preparation of lesson plans prior to lesson (61.5% disagreement); availability of teaching aids during PE instruction (70.5% disagreement); provision of adequate facilities for PE (73.3% disagreement); provision of indoor and outdoor facilities for teaching PE (73.1% disagreement); and availability of standard fields for athletics and football (61.3% disagreement). The only positive response noted was that teachers agreed that PE is allocated time on the master time table (49.6% cumulative agreement).

Table 4.9 Teachers Perceptions on Implementation of PE Instruction in Nyamira South Sub-county

	SA		A		UN		D		SD	
	n	%	n	%	n	%	n	%	n	%
1.PE is always allocated time on the master time table	112	45.9	131	53.7	0	.0	1	.4	0	.0
2.All classes participate in PE sessions in this school	17	7.0	59	24.4	4	1.7	155	64.0	7	2.9
3.Teachers are required to scheme for PE just like in other subjects	44	18.1	174	71.6	2	.8	21	8.6	2	.8
4.Lesson plans for PE are prepared prior to the lesson	13	5.3	68	27.9	4	1.6	150	61.5	9	3.7
5.Teaching aids are availed for use during PE	6	2.5	41	16.8	2	.8	172	70.5	23	9.4
6.Resource persons are often invited during PE	6	2.5	20	8.3	4	1.7	186	76.9	26	10.
7.The school provides adequate facilities for teaching PE	3	1.2	25	10.3	4	1.6	178	73.3	33	13.6
8.Both indoor and outdoor facilities are provided for teaching PE	4	1.6	30	12.3	3	1.2	180	74.1	26	10.7
9. Realia materials are often used in teaching PE	6	2.5	41	17.2	9	3.8	172	72.0	11	4.6
10.The school has adequate outdoor space for teaching PE	21	8.8	153	64.0	2	.8	53	22.2	10	4.2
11.The school has adequate indoor space for teaching PE	10	4.1	21	8.7	1	.4	185	76.8	24	10.0
12.Standard fields are available for athletics and football	19	7.8	55	22.6	4	1.6	149	61.3	16	6.6

The implication of these results is that despite PE being recognized as a subject that requires time allocation and maintenance of professional records, it is not given the required seriousness in schools in the sub-county. While it should be mandatory for all classes, it is noted that not all classes participate in PE instruction. More challenging is the reported lack of necessary teaching materials, facilities and infrastructure required for implementation of PE instruction.

These results are consistent with views drawn from teacher comments directed towards implementation of PE instruction in the sub-county. When asked to comment on implementation of PE instruction in the sub-county, the key theme emerging concerned facilities. It was reported that there was a general lack of required facilities and proper gear for PE instruction. Fields were mainly muddy as a result of weather conditions and types of soils. Besides, schools lack rooms that pupils can change in leaving no chance for an array of PE kit. Another theme that emerged concerns class size. It was observed that the very large number of pupils per class made it hard for the teacher to conduct effective PE instruction.

Table 4.10: Teacher comments on Implementation of PE Instruction in Public Primary Schools in Nyamira South Sub-county

Question	Comment
Comment on implementation of PE instruction in your school	✓ It is poor since there are no facilities and children don't have PE kits ✓ It is poor. Class sizes are too large it becomes a problem controlling these children ✓ Poorly done. Sometimes the fields are too muddy due to climate and the type of soil ✓ Poor. Should provide facilities and construct changing rooms

4.8.2 Analysis of Implementation of PE Instruction Observation Checklist

Six frames of reference were used to guide observation of implementation of PE instruction. First, observers were required to find out whether PE was time tabled and if the time table was being followed. Second, they were required to observe whether the PE teacher leads the pupils in conducting various activities. Third, observers were

required to report on the availability and use of materials and facilities for teaching PE. Fourth, observation focused on pupil's attire during PE instruction. Fifth, observers were asked to look at utilization of the field by the teacher. The sixth and final frame of reference was learner participation. Observers were required to examine pupils' participation in various activities. Results of the observations made regarding implementation of PE instruction and accompanying comments are presented in Table 4.11.

Table 4.11: Results of Lesson Observations on Implementation of PE Instruction (n=6)

Frame of reference	Observations made	Typology of comments
PE time tabling and adherence	• Time table available • Pupils out for PE during time allocated • Some pupils in class yet time table shows PE	• Schools visited had PE catered for on both lower primary and upper primary master time tables • PE time is adhered to in some cases • Some pupils skip PE lessons
Teachers Guidance	• Hands off • Not present • Some guidance	• in most lessons observed, pupils were on their own • pupils improvised activities to engage in • in very limited cases, teachers were observed issuing instructions
Materials and facilities	• improvised balls • some sisal ropes • muddy field • no changing rooms • little or no water	• boys were mostly playing football using balls made from banana fibers and plastics • girls were mainly jumping with ropes • fields were muddy and not even • no water to wash after PE
Pupil dressing	• school uniform • bare chest and school short	• in all lessons observed, girls were all in school uniform • some boys chose to remove shirts and remain bare chest
Field utilization	• not structured • congested	• absence of teachers meant that pupils were all over the field without any structure • field not well utilized
Learner participation	• quite active for lower classes • minimal for upper classes	• pupils from lower primary were very active but engaged in dangerous activities since they were mainly on their own • upper primary pupils chose to do homework

PE lesson observation results shown in Table 4.11 are consistent with the views expressed by teachers. Results portray a poor state of implementation of PE instruction in most schools in the sub-county. Despite all schools having in place a time table for guiding PE instruction, teachers and lack of requisite facilities are key factors in the poor implementation of PE instruction in the sub-county. Observations revealed that most of PE lessons were conducted by pupils themselves which appeared to pose danger due to choice of some activities. Besides, lack of PE gear and the poor state of the field led some pupils to opt out of PE participation since they did not want their uniform dirty.

Results from analysis of teacher questionnaire and PE lesson observations that PE implementation in public primary schools in Nyamira South sub-county is poor owing to teacher apathy and lack of materials supports findings by Zhu, Ennis and Chen (2011) that when teachers implement the curriculum inconsistently, issues of curriculum fidelity crop up. The results showing laxity among teachers to attend to PE lessons supports findings by Wanyama (2011) that teachers feel that PE is marginalized compared to other subjects.

Results showing poor implementation of PE in public primary schools in Nyamira south sub-county echoes a wide spectrum of literature on issues with poor implementation of PE countrywide (Gathu, Ndungu & Bomet 2015; Njoki, 2007; Gaceri, 2010) and adds Nyamira South sub-county to the growing list of areas where PE is not given prominence. It can therefore be argued that despite the context studies on PE in schools have been conducted, implementation of the subject remains poor. This then calls for audit of the ethos pre-service teachers are given regarding the centrality of physical activities in children and people in general.

4.9 Relationship between Teacher and Learner Factors with Implementation of Physical Education Instruction

The purpose of the current study was to establish challenges to implementation of PE instruction in public primary schools in Nyamira south sub-county. In this regard, Pearson's correlation coefficients were used to investigate existence of relationships

and then multiple regression models were used to examine the predictive powers of the teacher and learner related challenges. Response scores for items measuring each construct were averaged and used to indicate the average score for the construct.

4.9.1 Teacher Attitude and Implementation of PE Instruction

The first objective of the study sought to establish the influence of teacher attitude on implementation of PE instruction in public primary schools in Nyamira south sub-county. Results of the correlation between teacher attitude and implementation of PE instruction shown in Table 4.12 indicate a significant negative correlation between teacher attitude and implementation of PE instruction ($r=-0.180$, $p<0.05$). This implies that there indeed exists a negative correlation between teacher attitude and implementation of PE instruction. Consequently, teacher attitude can negate implementation of PE instruction and vice versa.

Table 4.12: Relationship between Teacher Attitude and Implementation of PE Instruction.

		Teacher attitude	Implementation of PE Instruction
Teacher attitude	Pearson Correlation	1	-.180**
	Sig. (2-tailed)		.004
Implementation of PE Instruction	Pearson Correlation	-.180**	1
	Sig. (2-tailed)	.004	

**. Correlation is significant at the 0.01 level (2-tailed).

The implication of these results is that teacher attitude poses a challenge to implementation of PE instruction in the study area. Results of lesson observations pointed to absence of teachers from PE lessons where pupils were left to play on their own. This is a result of negative attitude towards the subject and which could be a major concern to the implementation of instruction in the subject in the particular sub-county. These findings support views by others showing that teacher attitude correlates

negatively with implementation of PE in schools (Atoni, 2013; Bucher, 2003; Hendrikz, 2000)

4.9.2 Teacher Training and Implementation of PE Instruction

The second objective of the current study focused on determining the relationship between teacher training and implementation of PE instruction in public primary schools in Nyamira south sub-county. Correlating teacher training and implementation of PE instruction, revealed results shown in Table 4.13. From the results, it was observed that teacher training correlated positively and significantly with implementation of PE instruction ($r=0.172$, $p<0.05$). This implies that indeed there is a positive relationship between teacher training and implementation of instruction in the subject. Consequently, training has the potential of improving implementation of instruction in the subject.

Table 4.13: Relationship between Teacher Training and Implementation of PE Instruction.

		Teacher Training	Implementation of PE Instruction
Teacher Training	Pearson Correlation	1	.172**
	Sig. (2-tailed)		.007
Implementation of PE Instruction	Pearson Correlation	.172**	1
	Sig. (2-tailed)	.007	

**. Correlation is significant at the 0.01 level (2-tailed).

These findings support finding that show that Professional teacher training is a crucial factor in classroom Instructional practices as well as general school practices (Bless; Smith & Kagee, 2006). Furthermore, these findings corroborate findings by Morgan (2004) that teachers who are not trained lack knowledge of P.E among primary school teachers contributed to uncertainty about what they were doing

4.9.3 Learner Gender and Implementation of PE Instruction

Objective three of the study sought to find out the influence of gender of a learner in the implementation of PE instructions in public primary schools in Nyamira south sub-county. Results of the correlation analysis shown in Table 4.14 revealed that the learners gender positively and significantly influences implementation of instruction in PE ($r=0.226$, $p<0.05$).

Table 4.14: Relationship between Learner Gender and Implementation of PE Instruction.

		Pupil Gender	Implementation of PE Instruction
Pupil Gender	Pearson Correlation	1	.226**
	Sig. (2-tailed)		.000
Implementation of PE Instruction	Pearson Correlation	.226**	1
	Sig. (2-tailed)	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

The implication of these results is that learner gender potentially dictates how successful implementation of PE curriculum can be. This is consistent with descriptive results that tended to show that girls are not quite active in PE activities particularly when they are attending their periods. Besides, they prefer to be separated from boys making coordination of PE activities difficult to the teacher. These findings support a plethora of findings which show that learner gender can have an influence on the learners' willingness to participate in physical activity (Hardman, 2012; Morgan, 2004; Murphy, Dionig i& Litchfield, 2014)

4.9.4 Learner Age and Implementation of PE Instruction

Learner age was also conceptualized to have a direct bearing on implementation of PE instruction. In this regard, the fourth objective of the current study focused on establishing the influence the learner's age on implementation of PE instruction in public primary schools in Nyamira south sub-county. Results of the correlation between learner age and implementation of PE instruction presented in Table 4.15 show that learner age was not significantly correlated with implementation of PE instruction in the sub-county ($r=-0.099$, $p<0.05$). This is contrary to previous findings showing existence of a relationship (Stuart, 2012; Oguzhan, 2010; Robinson &

Smithers, 2003). This then implies that the context in which such a study is conducted may play part to the nature of findings made.

Table 4.15: Relationship between Learner Age and Implementation of PE Instruction

		Pupil age	Implementation of PE Instruction
Pupil age	Pearson Correlation	1	-.099
	Sig. (2-tailed)		.106
Implementation of PE Instruction	Pearson Correlation	-.099	1
	Sig. (2-tailed)	.106	

4.10 Modeling Implementation of PE Instruction based on Challenges Experienced

Having established that teacher related and some learner related challenges correlated with implementation of PE instruction, it was necessary to establish the causal relationships between those challenges and implementation of PE instruction. The multiple regression model summary and regression coefficients were therefore used to examine the predictive power of the hypothesized challenges to implementation of physical education instruction. First, results of the model summary presented in Table 4.16 revealed that using standardized coefficients, the adjusted R square value of the conceptualized challenges was 0.613. This implies that a combination of teacher attitude, teacher training, learner gender, and learner age account for up to 61.3% of the variance in implementation of physical education instruction.

Table 4.16: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.791[a]	.626	.613	.34679	1.659

a. Predictors: (Constant), Teacher attitude, Teacher training, Learner gender, Learner age

b. Dependent Variable: Implementation of PE Instruction

Second, results of the regression coefficients presented in Table 4.17 revealed that teacher training (B=0.193, $p<0.05$); teacher attitude (B=-0.204, $p<0.05$); and pupil gender (B=0.464, $p<0.05$) were significant challenges to implementation of PE Instruction. The implication is that while holding other challenges constant, 1 percent decline in teacher attitude was likely to result in 0.204 percent decline in implementation of PE instruction. Similarly, holding other challenges constant, 1 percent improvement in teacher training would result in 0.193 percent improvement in implementation of PE instruction; and pupil gender would account for 0.464 percent improvement in implementation of PE instruction.

On the basis of t-values, pupil gender (t = 4.494), was found to be the main challenge to implementation of PE instruction in public primary schools in Nyamira south sub-county. This was followed by teacher training (t = 3.264), and teacher attitude (t=-3.241). Learner age was not a significant challenge to implementation of PE instruction (B=-0.144, $p>0.05$).

Table 4.17: Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	2.487	.339		7.347	.000		
	Training	.193	.059	.205	3.264	.001	.963	1.038
	Teacher attitude	-.204	.063	-.210	-3.241	.001	.905	1.106
	Pupil Gender	.464	.103	.285	4.498	.000	.948	1.055
	Pupil age	-.144	.078	-.119	-1.849	.066	.917	1.091

a. Dependent Variable: Implementation of PE Instruction

Basing on these results, implementation of PE instruction can be modeled as a function of the challenges identified in the following way.

$Y = 2.487 + 0.193X_1 – 0.204X_2 + 0.464X_3$

Where Y= implementation of PE instruction

X_1 = teacher training

X_2 = teacher attitude

X_3 = pupil gender

.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study findings reported in line with the study objectives. It also captures the researcher's conclusions, recommendations and suggestions for further study.

5.2 Summary of the Findings

The overall finding of the current study is that challenges exist that tend to make implementation of PE instruction in public primary schools in Nyamira south sub-county a daunting task. This is mainly because PE unlike most other subjects is not examined and therefore teachers and pupils often don't take it serious. The following summary of findings focuses on the sub-headings that formed the study objectives:

5.2.1 Teacher Attitude and Implementation of PE Instruction in Public Primary Schools in Nyamira South-sub county

Research objective one sought to establish the influence of the attitude of the teacher on the implementation of the PE instruction in public primary schools in Nyamira South sub-county. Using descriptive analysis of teacher responses, the study established that most PE teachers in the sub-county have a negative attitude towards PE instruction. Through teacher comments, the study further found out that despite the potential that PE as a subject possesses, lack of materials and facilities is a major challenge to its implementation. Furthermore, the fact that it is non examinable makes teachers lack motivation to teach it.

Results of the correlation analysis revealed that there is a negative correlation between teacher attitude and implementation of PE instruction. This implies that the more negative teachers perceive about PE as a subject, the poor the implementation of instruction in it. Regression analysis results confirmed that indeed the posited poor implementation of PE instruction had teacher attitude as one of the causal factors. These findings showing poor implementation of PE instruction in Nyamira South Sub-county being attributed partly to teacher attitudes links well to the curriculum

implementation theory which identifies attitude of implementers as a key factor to implementation of curriculum.

5.2.2 Teacher Training and Implementation of PE Instruction in Public Primary Schools in Nyamira South Sub-county.

The second objective of the current study focused on finding out the relationship between teacher training and implementation of PE instruction in public primary schools in Nyamira south sub-county. Descriptive results showed that teachers had undergone proper training in PE and had been exposed to correct practices such as the need to plan for PE instruction, use of diverse methods when teaching PE, and knowledge of basic positioning. Observations made however revealed that there was apathy among teachers towards the teaching of the subject. Inferential analysis results clearly pointed to a positive correlation between teacher training and implementation of instruction in PE. Furthermore, regression analysis revealed that teacher training is significant predictor of implementation of instruction in PE. This in essence explicates the curriculum implementation theory which points to extent to which teachers have attained abilities and competences required to conduct and deliver the curriculum process as central to implementation of that curriculum.

5.2.3 Learner Gender and Implementation of PE Instruction in Public Primary Schools in Nyamira South Sub-county.

The third objective of the study sought to establish the influence of learner gender on implementation of the PE instruction in public primary schools in Nyamira south sub-county. Descriptive analysis of teacher responses revealed that lack of proper PE kits makes girls to prefer being separated from boys during PE instruction. Furthermore, bigger girls often feel shy participating in activities particularly when their foundation clothes are worn out. Similar findings were made from observations made which revealed that during PE instruction, most girls were in full school uniform while some boys opted to remove their shirts to remain bare-chested.

The correlation analysis established that there was a positive correlation between learner gender and implementation of PE instruction implying that learner gender

plays a significant role in implementation of PE instruction in Nyamira south sub-county. This was further confirmed by the regression analysis results which indicated that learner gender is a significant predictor of implementation of PE instruction. While the curriculum implementation theory does not refer to student gender among factors for consideration in curriculum implementation, this study finds learner gender to be at the heart of successful implementation of PE curriculum. This study therefore complements Gross's curriculum implementation theory by adding learner gender to identified factors.

5.2.3 Learner Age and Implementation of PE Instruction in Public Primary Schools in Nyamira South sub-county.

The fourth and final objective of the current study sought to establish the influence the learner's age has on implementation of PE instructions in public primary schools in Nyamira south sub-county. Using both descriptive and inferential statistics, the study found out the following. Teachers find it challenging to engage class seven pupils in PE activities. This tends to impact negatively on the envisaged implementation PE instruction. Further, class seven pupils tend show apathy towards PE believing that it should be taught to lower primary pupils. Observation results revealed that while pupils in lower primary participate actively in physical education, their counterparts in class seven prefer to complete their assignments during the time allocated for PE.

Interestingly, correlation results showed that despite the observed apathy among class seven pupils towards physical education, there is no significant relationship between learner age and implementation of PE instruction. This was confirmed by the regression results which revealed that learner age is not a significant predictor of implementation of PE instruction. This finding is crucial in the sense that physical activity should transcend age considering how crucial it is for healthy living. Age should therefore not be a pre-condition to implementation of PE instruction, and rightly so it does not appear among factors named under the curriculum implementation theory.

5.3 Conclusions

In view of the findings summarized above, several conclusions were made regarding teacher and learner related challenges to implementation of PE instruction in public primary schools in Nyamira south sub-county. First and foremost, the fact that PE as a subject is not being examined at the national level has made teachers to have a negative attitude towards its instruction. This is despite the findings showing that there exists a relationship between teacher attitude and instruction in PE. This then poses a major challenge to implementation of PE instruction in public primary schools in the sub-county. This situation is further compounded by a lack of relevant materials and facilities for use during instruction.

Second, despite the proper training public primary school teachers undergo during their training which exposes them to proper PE instruction practices such as, planning for PE instruction, use of diverse instructional techniques and knowledge of basic positioning skills, teachers still have apathy towards teaching the subject. This is contrary to the finding that teacher training is a predictor of implementation of PE instruction.

Third, learner gender poses challenges to teachers during PE instruction particularly when handling upper primary classes. This is because adolescent girls become more sensitive to their mode of dressing during PE which of course is their school uniform and therefore shy away from most activities. Besides, in the absence of proper PE kit some girls attending their periods, and others whose foundation clothes are worn out prefer to be separated from boys. This becomes challenging to the teacher who must shuttle between the girl's cohort and boy's cohort. Fourth, though learner age was found not to be a significant predictor of implementation of PE instruction, lower primary pupils participate actively in PE activities whereas pupils in class seven prefer to utilize PE time to do assignments in examinable subjects

5.4 Recommendations

In view of the conclusion made above, the following recommendations are made:-

5.4.1 Recommendations for theory and practice.

Observations of PE instruction and comments made by teachers raised several issues of concern with regards to implementation of PE instruction in public primary schools in the study area. Following these issues, the study makes the following recommendations for effective implementation of PE instruction in these schools.

1. Considering the negative impact teacher attitude has on implementation of PE instruction, public primary school administrators should put in place sensitization programs that can be directed to addressing this negative attitude. The government through the ministry of education should consider making the subject examinable so that it can be taken seriously like other examinable subjects. More importantly, focus should be directed towards acquisition of relevant materials and facilities that can facilitate proper instruction.
2. There is need to maximize on the proper training in PE that each teacher appears to have been taken through. Teachers should be motivated to put into practice skills which they acquired during training. This also calls for introduction of a framework for PE assessment at national level and which can be done continuously during instruction.
3. Due to the importance of PE to both boys and girls, there in a need to actively engage girls by providing or insisting on proper kits during PE instruction. This may go a long way in creating confidence in girls to mingle with boys during diverse activities introduced by the teacher.
4. Considering that class seven pupils are not as enthusiastic as lower primary pupils towards participating in PE, teachers must find ways through which they can enumerate the need for PE in physical and mental growth to the pupils. This then implies that teachers themselves ought to be made aware of the responsibility to attend to their pupils during PE. Some of activities pupils engage in may be dangerous making the teacher culpable.

5.4.2 Recommendations for Further Studies.

The researcher recognizes that while the findings show direct effects of teacher and learner related factors on implementation of PE instruction in Nyamira south sub-county, the findings may have been influenced by the context in which this study was conducted. The study therefore recommends that similar studies should be replicated in public primary schools in other sub-counties so as to improve the external validity of the findings. The current study employed an analytic approach that assumed that the conceptualized teacher related challenges had direct effects on implementation of PE instruction. In order to be open to a cross section of factors that can be monitored to address implementation of PE instruction, future studies should consider using the synthetic approach that would treat the issue of challenges to implementation of PE instruction from a holistic perspective.

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APPENDIX I: QUESTIONNAIRE FOR TEACHERS

University of Eldoret P.O Box 1125, Eldoret, Kenya.

Purpose: Challenges to implementation of Physical Education instruction in public primary school in Nyamira South Sub County, Kenya.

Dear Respondent,

I am a student in the above named institution in partial fulfillment for the award of a Master's Degree, I am required to conduct a research and write a report. My study focuses on challenges to implementation of Physical Education instruction in public primary school in Nyamira South Sub County, Kenya.

I kindly request you to respond to the questionnaire in order to facilitate this study. Please do not write your name on the questionnaire. Thank you for taking time to support this study.

Instructions

Place a tick in the bracket in front of the most appropriate responses and where explanation is required, use the spaces provided.

Section A: Background Information

1. Gender: Male [ ] Female [ ]
2. Age bracket
   (a) 26-30 [ ]
   (b) 31-35 [ ]
   (c) 36-40 [ ]
   (d) Over 40 [ ]

3. What is the level of your education?

Certificate [ ] Diploma [ ]

Degree [ ] Masters [ ]

PhD [ ]

Any other specify

……

……

……

4. Indicate how you received knowledge and skills on PE

(a)College [ ]

(b)Seminars and workshops [ ]

(c)Through personal talent and skills [ ]

(d) Through PE team activities [ ]

(e) Through furthering studies [ ]

(f) Any other specify

……

……

……

Section A : TEACHER TRAINING

Below are statements focusing on teacher training on implementation of PE instruction in public primary schools. For each statement, tick the response that best describes your view with respect to teacher training ; SA stands for Strongly agree(5); A stands for Agree(4); UN stands for Undecided(3); D stands for disagree(2) and SD stands for Strongly Disagree(1)

STATEMENT	RATING SCALE				
	SA	A	UN	D	SD
There was no time for drawing field pitch in preparation for PE lesson					
Some tutors handling PE courses were harsh to student					
some games like basketball as well as hockey could not be implemented in primary schools as they are not practiced in primary schools					
Facilities for training PE were adequate					
In service training has adequate time for teaching PE content					
There were enough reference materials for learning PE					
The tutors handling PE lessons liked teaching it					
There was adequate space for practicing PE					

Are there any other practice or facilities related to training on implementation of PE instruction in your college not mentioned above?

Yes [ ] No [ ]

If yes, which one?

……

……

……..……..……

Section B : Teachers' attitude

Below are statements focusing on teachers' attitude towards PE instruction implementation in public primary schools? For each statement, tick the response that best describes your view with respect to PE implementation practices in your school

using the provided scale where; SA stands for Strongly agree(5); A stands for Agree(4); UN stands for Undecided(3); D stands for disagree(2) and SD stands for Strongly Disagree(1)

STATEMENT	**RATING SCALE**				
	SA	**A**	**UN**	**D**	**SD**
I always attend to all of my PE lessons					
I prepare schemes of work and lesson plans for PE					
I find teaching PE boring					
PE teaching should be done by student teachers only					
PE provides a good opportunity for learners to nurture their talents					
Teaching in upper primary should focus on examinable subjects only					
PE as a subject is as relevant as other subjects in the school curriculum					
Teaching of PE eats on the time that would have been used on important subjects					
I find teaching PE degrading me as a teacher					

Is there any other practice related to implementation of PE instruction in your school not mentioned above?

Yes [ ] No [ ]

If yes, which one?

……

……

Section C: Learners age

The following are statements on age of a learner and PE Implementation. For each statement, tick the response that best describes your view with respect to PE implementation practices in your school using the provided scale where; SA stands for Strongly agree(5); A stands for Agree(4); UN stands for Undecided(3); D stands for disagree(2) and SD stands for Strongly Disagree(1).

Statement	**SA**	**A**	**UN**	**D**	**SD**
Most pupils in class 7 are aged 12 years and above					
Pupils in class seven are conscious of their sexuality					
Class 7 pupils feel that they are past the age of participating in PE					
Class 7 pupils feel shy participating in some PE activities					
Class seven pupils like to request to use PE lessons to complete their assignments					
Pupils in lower primary are mostly aged below 12 years					
Pupils in lower primary show enthusiasm for PE					

Any other behavior related to age and PE implementation not mentioned above?

……

……

……

……

Section E: Learners' gender

The following are statements on gender of a learner and PE Implementation. For each statement, tick the response that best describes your view with respect to PE implementation practices with reference of gender of a learner in your school using the provided scale where; SA stands for Strongly agree(5); A stands for Agree(4); UN stands for Undecided(3); D stands for disagree(2) and SD stands for Strongly Disagree(1).

Statement	**SA**	**A**	**UN**	**D**	**SD**
PE as a subject knows no sex					
Both boys and girls participate actively during PE sessions					
Girls are forced to participate in PE					
Both girls and boys participate in same activities without segregation.					
Girls prefer to be separated from boys during PE time					
All PE teachers are male					
Girls are encouraged when they see female teachers conducting PE sessions					

Any other behavior related to gender and PE implementation not mentioned above?----

---

Section F : Implementation of PE instruction

Below are statements focusing on practices for implementation of PE instruction in public primary schools. For each statement, tick the response that best describes your view with respect to implementation of the practice where; SA stands for Strongly agree(5); A stands for Agree(4); UN stands for Undecided(3); D stands for disagree(2) and SD stands for Strongly Disagree(1)

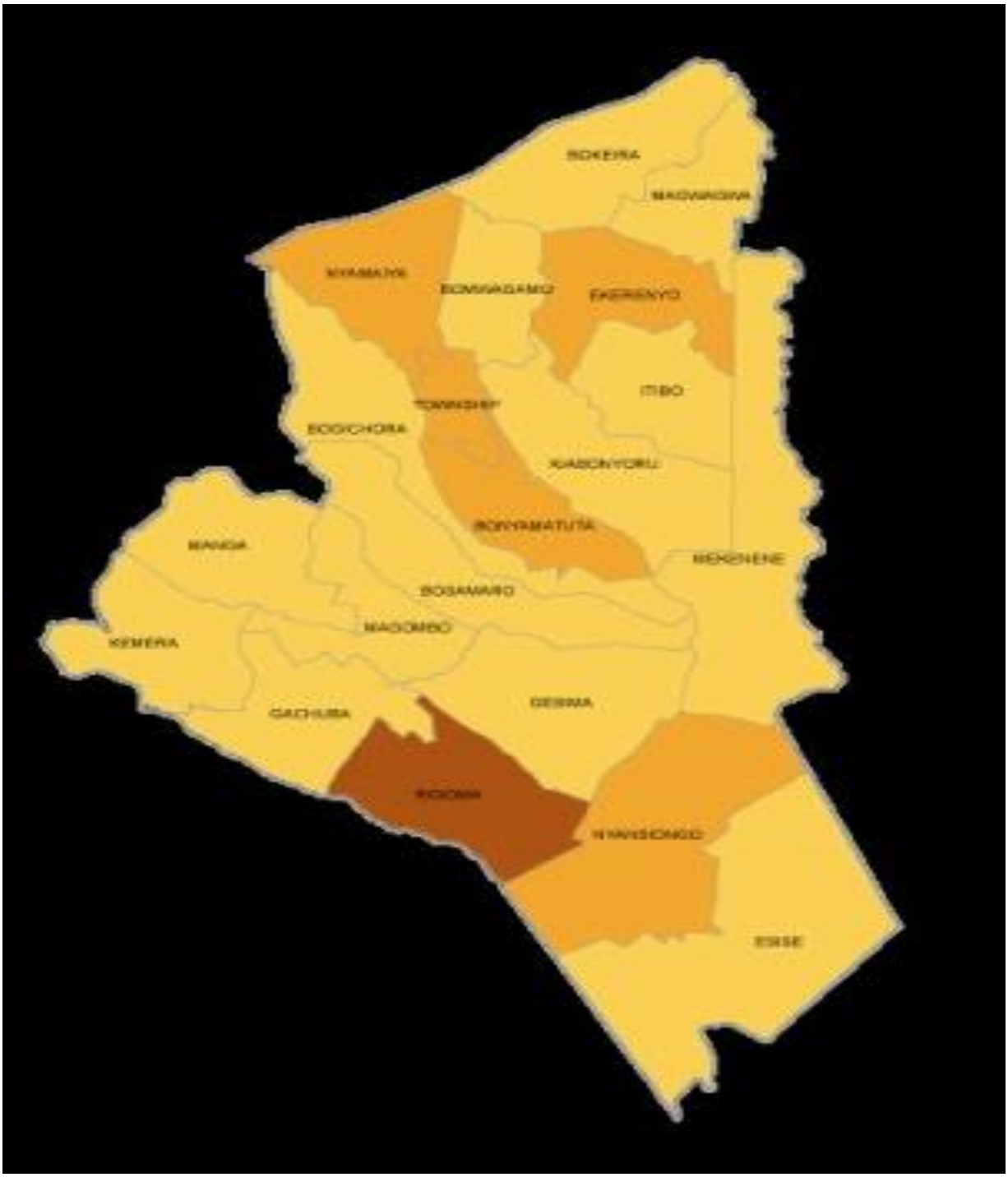
STATEMENT	**RATING SCALE**				
	SA	**A**	**UN**	**D**	**SD**
PE is always allocated time on the master time table					
All classes participate in PE sessions in this school					
Teachers are required to scheme for PE just like in other subjects					
Lesson plans for PE are prepared prior to the lesson					
Teaching Aids are availed for use during PE					
Resources are often invited during PE sessions					
The school provides adequate facilities for teaching PE					
Both indoor as well as outdoor facilities are provided for teaching PE					
There is use of Realia while teaching PE					
The school has adequate outdoor space for teaching PE					
The school has adequate indoor space for teaching PE					
A standard athletics as well as football field is available in my school for teaching athletics as well as football during PE					

Any other practice or facilities related to implementation of PE instruction in your school not mentioned above?

Yes [ ] No [ ]

If yes, which one? ----------

APPENDIX II: MAP OF NYAMIRA SOUTH SUB COUNTY



APPENDIX III: OBSERVATION CHECKLIST

School _____

Location _____

General Dimensions	**Comments**	
1. PE is time tabled		
2. The PE teacher leads the pupils in conducting various activities		
3. The teacher has various teaching aids e g balls, ropes		
4. The pupils are well dressed in PE attire		
5. The field is well utilized by the teacher		
6. pupils participated in carrying out various activities		

APPENDIX IV: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVENPOPULATION

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	198	3000	341
80	66	420	201	2500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note: N = population size

S = sample size

Source; R.V. Krejcie& D. Morgarn; (1970) in Mulusa (1988:86)

APPENDIX V: LETTER OF AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email:dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. NACOSTI/P/16/70752/11877

Date: 4th July, 2016

Susan Monyangi Onyancha
University of Eldoret
P.O. Box 1125-30100
ELDORET.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Challenges of implementing physical education instruction in public primary schools in Kenya. A case of Nyamira South Sub-County,"*** I am pleased to inform you that you have been authorized to undertake research in **Nyamira County** for the period ending **4th July, 2017.**

You are advised to report to **the County Commissioner and the County Director of Education, Nyamira County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in** pdf of the research report/thesis to our office.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nyamira County.

The County Director of Education
Nyamira County.

APPENDIX VI: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MS. SUSAN MONYANGI ONYANCHA
of UNIVERSITY OF ELDORET, 0-30100
Eldoret,has been permitted to conduct
research in *Nyamira County*

on the topic: *CHALLENGES OF IMPLEMENTING PHYSICAL EDUCATION INSTRUCTION IN PUBLIC PRIMARY SCHOOLS IN KENYA. A CASE OF NYAMIRA SOUTH SUB-COUNTY.*

for the period ending:
4th July,2017

Permit No : NACOSTI/P/16/70752/11877
Date Of Issue : 4th July,2016
Fee Recieved :Ksh 1000

.....
Applicant's Signature

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 9868

CONDITIONS: see back page

APPENDIX VII: AUTHORITY TO CONDUCT RESEARCH

MINISTRY OF EDUCATION

Telegram: "EDUCATION", Nyamira
Telephone: (058) 6144224

When replying please quote

NCEO/1/25/100
REF.....

COUNTY DIRECTOR OF EDUCATION
NYAMIRA COUNTY
P.O.BOX 745
NYAMIRA

25TH OCTOBER, 2016
DATE: .....

TO WHOM IT MAY CONCERN

RE: AUTHORITY TO CONDUCT RESEARCH BY SUSAN MONYANGI ONYANCHA

The above named person is a student at **UNIVERSITY OF ELDORET**. She has been given authority by the National Commission for Science, Technology and innovation to conduct Research on **"Challenges of implementing Physical Education Instruction in public Primary Schools in Kenya. A case of Nyamira South Sub-County**

The research will commence immediately and end on **4th July, 2018.**

Please accord him your assistance.

COUNTY DIRECTOR OF EDUCATION
P.O. BOX 745
NYAMIRA

DIMBA KENNEDY
FOR: COUNTY DIRECTOR OF EDUCATION
NYAMIRA COUNTY.