PERCEPTIONS OF TEACHERS ON PHYSICAL EDUCATION TEACHING RESOURCES AND IMPLEMENTATIONS OF CURRICULUM IN PUBLIC SECONDARY SCHOOLS IN KISII COUNTY, KENYA

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

This thesis is dedicated to my dear wife Iris and my dear children; Ian, Ivy and Ifan and my mother for being my greatest blessing and source of encouragement throughout the study and research period. May God bless them immensely.

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LIST OF ABBREVIATIONS AND ACRONYMS

AAHPHERD - American Alliance for Health Physical Education Recreation and Dance

AHKC - Healthy Active Kids Canada

EACEA - Education Audiovisual and Culture Executive Agency

HAKK - Healthy Active Kids Kenya

HHS - Department of Health and Human Services.

ISCOLE - International Study of Childhood Obesity, Lifestyle, and the Environment

KCSE - Kenya Certificate of Secondary Education

KICD - Kenya Institute of Curriculum Development.

KISE - Kenya Institute of Special Education

KNEC - Kenya National Examination Council

KTTC - Kenya Technical Teachers College

MEd - Master of Education

NASPE - National Association for Sport and Physical Education

PE - Physical Education

SPSS - Statistical Package for Social Sciences

TSC -Teachers Service Commission

UNESCO -United Nations Educational Scientific and Cultural Organization

WHO -World Health Organization

OPERATIONAL DEFINITION OF TERMS

Class: Refers to the levels of study the students are enrolled in for example forms 2 and 3.

Curriculum: This is the program laid out by the Kenya Institute of Curriculum Development on the content to be taught to students in a given course. It sets the aims and specific objectives to be achieved by learners.

Equipment: Is a general term for any portable objects used during Physical Education lessons. These include foot balls, volley balls, net balls, handball balls, hockey sticks, nets and games kits.

Facilities: Are permanent structures within and on which Physical Education practical classes take place. These include swimming pool, tennis courts and playgrounds.

Physical Education: Academic discipline concerned with the adjustment and development of an individual or a group through body activities, usually of a playful type; adjustment and development accruing from organized instruction or direction in such total body activities.

Public School: Refers to the schools supported through the government funding.

Resources: Refers to facilities, equipment and time allocated for Physical Education.

Type of School: Categorized as national, extra-county, county and sub-county school.

Adequate/Adequacy: Enough in quantity and good enough in quality for teaching and implementation of the PE curriculum.

Sufficiency: The condition or quality of being acceptable for teaching and implementation of the PE curriculum.

ABSTRACT

The purpose of this study was to ascertain the adequacy of teaching resources for the implementation of Physical Education curriculum in public secondary schools in Kisii County. The study aimed at establishing the extent of adequacy of indoor and outdoor facilities, equipment and apparatus, trained PE teachers, textbooks and related reference materials, time allocated for teaching PE and maintenance of facilities and extent of implementation of the PE curriculum in public secondary schools in Kisii County. The study adopted the descriptive survey design. Stratified random sampling procedures were used to attain a sample of 76 head teachers and 76 Physical Education teachers in the 317 public secondary schools in the county. A questionnaire and an observation check list were used to collect the data from the respondents. The response rate was 91% with 70 head teachers and 68 PE teachers responding. The SPSS version 22 was used to analyze the quantitative data where frequencies, charts, graphs and percentages were used to present the data. One way ANOVA was used in testing of the hypotheses. On the adequacy of physical facilities and equipment the study revealed that all the schools had facilities for soccer, volleyball, netball and track athletics though they were inadequate. All the schools did not have adequate indoor facilities and none of the schools had a swimming pool. On the adequacy of teachers, 81% of the respondents indicated that the number of PE teachers was inadequate while 69% of the respondents indicated that time allocated for PE was inadequate. On the availability of textbooks and reference materials 80% of the respondents indicated that there were no textbooks and reference materials for teaching PE. The study recommends that the National government and the Kisii County government in partnership with parents and non-governmental organizations should partner to provide enough facilities and equipment to public secondary schools in the County for teaching and learning of PE. TSC should also employ more trained teachers to teach Physical Education in public secondary schools. The study finally recommends that PE should be made an examinable subject at KCSE as that is the only way to make all stake holders take the subject seriously.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Medical and other scientific evidence has made a strong case for the inclusion of Physical Education (PE) as an essential subject in the school curriculum. This is based on the premise that PE lays a strong foundation for the people to engage in lifelong regular physical activities (NASPE, 2010). The American Alliance for Health Physical Education Recreation and Dance (AAHPHERD, 2013) lists several benefits for students from a well-planned and implemented PE programme in schools. The benefits include improved physical fitness, skill development, increased self-discipline, improved judgment, stress reduction, strengthened peer relationships, improved self-confidence, self-esteem, experience in setting goals and general improvement in academic performance (AAHPHERD, 2013; EACEA, 2013).

The importance of PE in school curriculum is underscored in the United Nations Educational Scientific and Cultural Organization (UNESCO) Charter for Physical Education and Sport of 1978 where PE was declared a "Fundamental Right" to be guaranteed within education systems through provision of opportunities for practice. Article two (2) of the same Charter calls upon national agencies to promote and foster PE in order to establish a balance that will strengthen the link between physical activities and other elements of education. The distinctiveness of PE with its unique characteristics are further summed up in the November 2007 European Parliament's Resolution on the Role of Sport in Education (2007/20086N1). The preamble to their resolution attests to PE as the only school subject which seeks to prepare children for a healthy lifestyle and focuses on their overall physical and mental environment as well

as inculcating important social values such as fairness, self-discipline, solidarity, team spirit, tolerance and fair play and when combined with sport is deemed to be among the most important tools of social integration (Chin M.K & Edginton, 2014).

Professionals worldwide have addressed issues related to PE and health over the last decades by highlighting the unique benefits of movement and physical activity for the overall development of children and youth. Many international surveys have been conducted, world summits organized by the International Council of Sport, Science and Physical Education (ICSSPE) held in 1999, 2005 and world conferences of Ministers and senior officials responsible for sport (MINEPS) were held in 1976, 1988, 1999, 2004 and 2013 under the auspices of UNESCO and all of them affirmed that PE was central to laying foundation for a healthy lifestyle for children and youth (Chin *et al.*, 2013).

Reports from World Health Organization (WHO, 2010) show that physical inactivity, overweight and obesity are classified as 4^{th} and 5^{th} leading causes of global mortality and two of the greatest health challenges and determinants for various chronic diseases (WHO, 2010). Participation in PE has been shown to have immediate and long term benefits for children and youth hence need for PE to be taught in secondary schools (Ginsburg, 2010). PE and exercise has been shown to improve health and reduce the risks of developing several diseases like type 2 diabetes, cancer and cardiovascular diseases (WHO, 2010). The global physical activity guidelines by WHO recommend that children and youth of between 5 to 17 years of age accumulate an average of at least 60 minutes of daily moderate to vigorous physical activity in order to improve and

maintain a healthy cardio-respiratory, fitness and body composition profile (WHO, 2010). For this to be achieved, WHO advocates for school-based education in the promotion of physical activity among children and adolescents with a view to eliminate the risk factors for chronic diseases later in life (WHO, 2010).

Through PE, schools have a unique opportunity to develop and maintain healthy behavior in young people and establish the foundation for their lifelong participation in regular physical activity (EACEA, 2013). Schools provide many opportunities for young people to engage in vigorous activity and are therefore better placed amongst societal institutions to motivate young people to lead active lifestyles (Bunker & Thorpe, 2007). This is because it is in schools where children are introduced to PE and sport in a formal setting and with a curriculum to guide such exposure and it is where children spend most of their active time (Macfyden & Bails, 2002; NASPE, 2010).

PE has been one of the subjects in Kenya's education system since colonial times (Nteere, 1982). Formal Physical Education on the timetable of secondary schools is a recent phenomenon; most schools head-teachers did not find time for PE in school timetables until 1980 when there was a presidential decree that made PE compulsory in all secondary schools in Kenya (Nteere, 1982). In 1986, a new system of Education that is the "8-4-4" was introduced to ensure that graduates had the necessary technical and vocational skills for them to be self-reliant upon completion of school. In this new education system PE was retained as one of the mandatory but non-examinable subjects. The PE syllabus was also revised and PE was allocated one more lesson in forms three and four. PE was described as an integral part of the education process within and outside the learning institutions reinforcing the contribution of subjects like music, drama, dance and visual arts as well as literature, science and humanities (KIE,

2002). The overall aim of the PE course was to enable learners acquire skills for fitness, good health, growth and development, character formation, proper use of leisure time, acquisition of life skills and enjoyment. These were to be reviewed continuously and periodically to reflect the extent to which each learner achieved the objectives and outcomes of the syllabus (KIE, 2002).

To achieve the syllabus objectives, schools were supposed to avail adequate physical facilities, equipment and supplies, textbooks and other instructional materials for PE teachers to use in instructing the learners (KIE, 2002). This study therefore assessed whether public secondary schools in Kisii County have adequate instructional resources to ensure effective implementation of the PE curriculum. The study also assessed content coverage, student assessment and preparation of schemes of work and lesson plans by the PE teachers.

1.2 Problem Statement

Physical Education (PE) is one of the compulsory but non-examinable subjects in the secondary syllabus in Kenya. The subject is not examined may be due to argument that the subject has a congested syllabus, it is a non-intellectual, lacks career opportunities, that students have enough physical activity during games time or due to non-availability of adequate number of trained teachers to teach the subject. It has been observed that since PE is not an examinable subject, it is not sufficiently taught in public secondary schools in Kenya (HAKK & AHCC, 2014). Previous studies have shown that students in secondary schools in Kenya are largely denied a chance to fully participate in PE due to non-provision of facilities, equipment, supplies and unavailability of PE teachers (Njororai, 1994; Nyakweba, 2005; Wamukoya, 1994). This study was designed to ascertain whether the status may have changed from the time when most of these studies were conducted. Moreover, the curriculum has been reviewed several times with a view

of making secondary school education more relevant to the present Kenyan needs. This was also buttressed by the fact that the levels of physical activity among Kenyan children have been reported to be decreasing thereby leading to obesity and other life style diseases among children (HAKK & AHCC, 2014) hence, the need for this study.

1.3 Purpose of the Study

The purpose of this study was to assess the status of teaching resources for effective teaching and implementation of Physical Education Curriculum in terms of their availability, sufficiency and maintenance in national, extra-county, county and sub-county public secondary schools in Kisii County.

1.4 Objectives of the Study

The main objective of the study was to ascertain the adequacy of teaching resources for the implementation of Physical Education curriculum in public secondary schools in Kisii County.

The study was guided by the following specific objectives:

i. To establish the stakeholders (PE Teachers and Head Teachers) perceptions on availability of outdoor and indoor teaching facilities for the implementation of Physical Education curriculum in public secondary schools in Kisii County.

ii. To ascertain the extent of adequacy as perceived by PE teachers of PE equipment and supplies available for the implementation of the PE curriculum in public schools in Kisii County

iii. To determine teachers' rating of extent to which PE teaching facilities are maintained for effective teaching of the subjects

iv. To determine whether PE teachers in public Secondary Schools in Kisii County prepare and have schemes of work, lesson plans, and lesson notes for the teaching of PE and if this differed based on the School category.

v. To determine whether public Secondary Schools in Kisii County have adequate number of trained PE teachers to implement the PE curriculum

vi. To establish the extent of implementation of the PE curriculum in public Secondary Schools in Kisii County

vii. To ascertain the adequacy of instructional materials such as text books, rule books and other reference materials as perceived by teachers available for the implementation of the PE curriculum in Public Secondary Schools in Kisii county

viii. To ascertain whether PE is allocated recommended time by the Ministry of education in the time table in Public Secondary schools in Kisii County

1.5 Research Questions

The study sought to answer the following research questions:

i. Are there enough outdoor and indoor teaching facilities for the implementation of PE curriculum in public secondary schools in Kisii County according to needs of each and does the availability differ based on the type of school?

ii. Are there enough equipment and supplies for the implementation of PE curriculum in public secondary schools in Kisii County according to each school needs and does the extent of their availability differ?

iii. To what extent are teaching facilities maintained for the effective implementation of the PE curriculum in public secondary schools in Kisii County and does this differ based on the type of school?

iv. What is the extent of implementation of the PE curriculum in public secondary schools in Kisii County and does this differ based on the type of school?

v. Do PE teachers prepare and keep professional teaching documents such as schemes of work, lesson plans, and lesson notes?

vi. Are there enough trained PE teachers in public secondary Schools in Kisii County to implement the PE curriculum in the Schools?

1.6 Research Hypotheses

H_{O1} The perception of teachers on the extent of adequacy of the following resources for teaching of PE will not significantly differ between categories of schools:

i. Indoor and Outdoor Facilities

ii. Equipment and supplies

iii. Trained PE Teachers

iv. Textbooks and related Reference Materials

v. Time allocated for PE lessons

H_{O2} rating of teachers of their satisfaction with the extent of coverage of PE content will not significantly differ between National, Extra county, County and Sub county Public Secondary Schools in Kisii County

H_{O3} The perception of the teachers on the effectiveness in maintenance of PE facilities will not significantly differ based on the category of Public Secondary School in Kisii County

1.7 Significance of the Study

This study sought to determine whether public secondary schools in Kisii County have adequate teaching resources to implement the elaborate secondary school PE curriculum in Kenya. The findings of this study provide valuable data to various education stakeholders such as policy makers and curriculum developers on the implementation of the PE curriculum in secondary schools. This will assist in future policy and curriculum reviews on play as they strive to guard and advocate for the right of children to play by ensuring there are adequate PE resources. School administrators and sponsors will also appreciate the need to set up school policies and provide finances and resources in order to enhance the implementation of the PE curriculum. Parents, who are key stakeholders in education, will understand the importance of PE in the total development of children and play a positive role in the contribution of the implementation of the PE curriculum by providing adequate resources. The study may also help to inform the current status of PE in public secondary schools particularly in Kisii County and Kenya in general and thus form the basis for further research.

1.8 Delimitations/Scope of the Study

The study was delimited to subjective perceptions of the respondents on the adequacy or sufficiency of teaching resources and implementation of the PE curriculum in public secondary schools in Kisii County, Kenya.

Questionnaires and an observation checklist were used to collect data from the respondents (Head Teachers and PE teachers).

1.9 Limitations of the Study

The following limitations were encountered;

i. The actual status of facilities and equipment were not assessed using any given standard. Only perceptions were assessed.
ii. The findings of this study may not be generalized to all secondary schools in Kenya as those covered in the study comprise of those in Kisii County.

1.10 Assumptions of the Study

This study was based on the following assumptions:

i. That all the public secondary schools in Kisii County teach Physical Education.
ii. All the responses received were a true reflection of the status of Physical Education in public secondary schools in Kisii County.

1.11 Theoretical Framework

The study was anchored in the philosophical theory of experiential continuum which was first explored by John Dewey and Jean Piaget and later popularized by education theorist David A. Kolb. Experiential learning is a process through which learners develop knowledge, skills and values from direct experiences outside a traditional academic setting just like in PE. It encompasses a variety of activities which when well planned, supervised and assessed like in PE; stimulate academic inquiry and mastery of skills. In experiential learning, students make discoveries and experiment with knowledge themselves instead of only learning about the experiences from others. They also reflect in the experiences thereby developing new skills, new attitudes and new ways of thinking which PE is all about (Light, 2008).

The teaching and learning of motor skills in PE is dependent on relevant stimuli like a student learning swimming is expected to swim within the markings of the pool and

selected skills to be learnt require appropriate responses to instructions of operation within the pool area. As such a learner cannot be taught how to swim without a swimming pool or a water environment (Krouscas, 2009). Prominent education pioneers like Pestalozzi, Froebel and Montessori recognized the need for adequate sensory stimuli through play materials in the process of learning. They argued that a child's intellectual development should arise naturally out of the quality of environment that the child is brought up (Wessel, 2006). In a PE environment, the presence and use of the relevant playgrounds and apparatus tend to contribute a significant role in the process of sensory stimulation and the consequent learning process (Light, 2008).

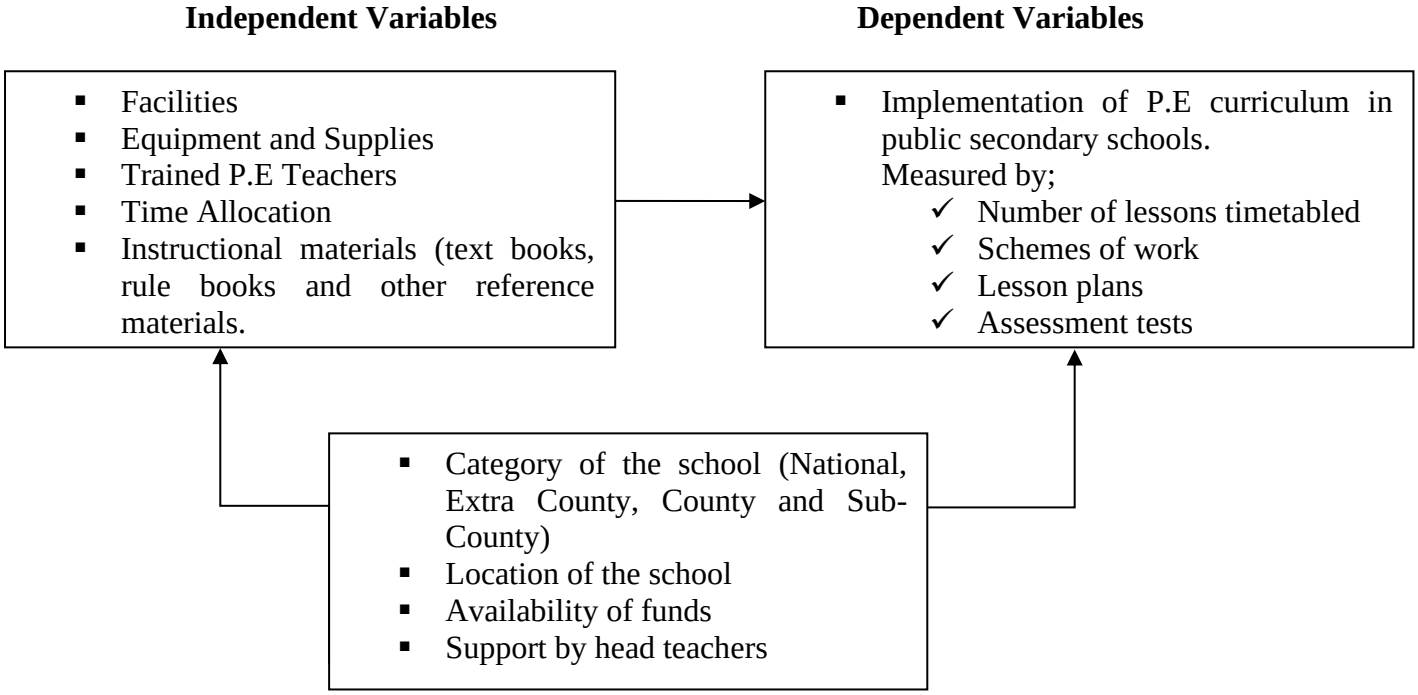
This study investigated whether public secondary schools in Kisii County had the teaching resources for successful implementation of PE curriculum as discussed above in the experiential continuum theory since PE is a practical subject mostly taught out of class.

1.12 Conceptual Framework

This study was grounded on the fundamental principle of the role of resources for effective teaching of Physical Education. Many scholars and educationists throughout the ages have acknowledged the universality of Physical Education and its importance to human existence (Penney, 2001), hence it may be more appropriate to understand, appreciate and promote it. For this to be achieved, many resources, which include facilities such as fields, equipment such as balls, racquets and bats, trained personnel, instructional variables which include textbooks and reference materials, time factor and administrative support are all imperative. According to Kerlinger (2000) these variables interact in the teaching-learning process and can also be altered so as to promote successful teaching-learning process. If physical facilities are not provided, teaching/learning can be adversely affected. Equipment on the other hand can influence

teaching/learning considering that teaching of Physical Education in secondary schools is practical-oriented. Talbot (2001) further notes that finances are very important for successful implementation of sport facilities and sourcing of equipment. In the absence of sufficient finances, proper implementation can stagnate. This can have far-reaching effects on teaching of Physical Education. Figure 1.1 below describes how these variables impact on teaching Physical Education.

Figure 1.1: Conceptual Framework



Source: Adapted from Ginsburg (2007)

CHAPTER TWO: LITERATURE REVIEW

2.1 Physical Education as an Academic Subject

Studies have established a prima facie case for the inclusion of Physical Education as an essential school curriculum subject in schools across the globe. With the changing lifestyles world-over especially due to technological advances like in information and communication technology, and rapid advances in urbanization, majority of the school-going children lack avenues for physical activity (Tallbot,2001; Ginsburg, 2007). This has led to increased cases of lifestyle diseases even in the developing countries like Kenya (EACEA, 2013).

Quality PE programmes can help prevent unhealthy behaviors by reducing sedentary habits blamed for obesity in school-aged population worldwide (Talbot, 2001). Well established habits of regular physical activity instilled by quality PE curriculum are sustained into adulthood and contribute to healthy decisions and behaviors over a life-time. An optimal Physical Education curriculum in schools will foster lifetime commitment to physical activity as part of a healthy lifestyle (Ginsburg, 2007). Ultimately, improved coordinated school health programme of which Physical Education is a central component will augment other prevention efforts and help to reverse the growing epidemic of childhood obesity worldwide which threatens to undo decades of progressing the fight against cardiovascular diseases and other lifestyle diseases (Talbot, 2001).

Physical education is taught as a compulsory subject in secondary schools in over 87% of countries in the world and in 8% of the countries it is not compulsory but its taught

anyway meaning that it is taught in over 95% of all countries in the world (Hardman, 2009). Over 87% of the countries in the world have legal requirement of teaching PE in secondary schools. However international surveys over the last decade indicate that many countries don't adhere to this requirement with Africa and Asia leading in non-compliance (Hardman, 2008). The gap between official policy and regulations and actual teaching of the subject in schools is geographically widespread. Factors that have led to marginalization of the subject globally include: loss of time allocation to other competing prioritized subject, lower regard of school PE in general, lack of official assessment, financial constraints, diversion of resources elsewhere, inadequate material resources, deficiencies in numbers of qualified teachers and attitude of significant individuals such as head-teachers (Hardman, 2009). Therefore the current study sought to ascertain the adequacy or sufficiency of PE teaching resources in public secondary schools in Kisii County.

PE has been one of the subjects in Kenya's education systems since colonial times, but became compulsory in primary and secondary schools and diploma teachers colleges in 1980 through a presidential decree (Rintaugu *et al.*, 2011). In 1986, a new system of education that is the 8-4-4 was introduced to ensure that graduates had the necessary technical and vocational skills for them to be self-reliant upon completion of school. In this new education system PE was retained as one of the mandatory but non-examinable subjects. In 2002, Kenya Institute of Education (KIE), revised the secondary school syllabus to address overload, cost of provision of materials, better mastery of skills and inclusion of emerging issues. The PE syllabus was also revised and PE was allocated one more lesson in forms three and four. PE was described as an integral part of the education process within and outside the learning institutions reinforcing the

contribution of subjects like music, drama, dance and visual arts as well as literature, science and humanities. The overall aim of the PE course was to enable learners acquire skills for fitness, good health, growth and development, character formation, proper use of leisure time, acquisition of life skills and enjoyment. These were to be reviewed continuously and periodically to reflect the extent to which each learner achieved the objectives and outcomes of the syllabus (KIE, 2002). To achieve the syllabus objectives, schools were supposed to avail enough physical facilities, equipment and supplies, textbooks and other instructional materials for PE teachers to use in instructing the learners (Nyakweba, 2005). Thus the current study sought to ascertain the adequacy or sufficiency of PE teaching resources in public secondary schools in Kisii County.

In Kenya, studies carried out have established that students in secondary schools perceived PE to be an equally important subject like the other academic subjects such as English and Mathematics (Sakwa, 2005; Rintaugu *et al*., 2011). Other studies have found out that student athletes performed well in academics than non-athletes hence need for more students in secondary schools to participate in inter-school sport competitions after learning the sport skills in PE lessons (Rintaugu, 1998) and Nyakweba (2005) established a serious lack of facilities and equipment for teaching of PE in secondary schools in Uasin Gishu County and Butere division Kakamega County, Kenya respectively. The study therefore sought to establish if a similar scenario existed in public secondary schools in Kisii County or whether the situation had improved. It was therefore necessary to establish the status of PE resources in other regions of Kenya, including Kisii County after 24 years.

2.1.1 Physical Education Curriculum in Kenya

Kenya initially adopted the British style of physical training based on the 1933 syllabus, which mostly included physical drills (Wamukoya & Hardman, 1992). Following its

showing on the international sporting stage during the 1954 Commonwealth Games and the Olympics in Melbourne in 1956, the country came to realize the full value of sport and PE to nationhood. Immediately thereafter, in 1967 the Ministry of Education drafted the first PE syllabus. The national inspector of PE, who was a music specialist, approved some general guidelines on what was to be taught in secondary schools. However, PE was taught depending on the attitudes and interests of the Head teachers, who often regarded it as an insignificant subject. In 1980, after a Presidential directive making PE compulsory, the Kenya Institute of Education (KIE) formed a subject panel, which produced a new secondary school syllabus for PE (Wamukoya & Hardman, 1992). Schools were directed to schedule PE twice a week, separate from after class games and sports, although some head teachers timetabled it only for inspection purposes (Marshall & Hardman, 2000). Since there were only two inspectors to oversee PE in the whole country, PE lessons were largely ignored. In addition the syllabus did not clearly show which activities were to be taught and engaged in at each level. Greater emphasis was instead placed on imported sports like squash, swimming, rugby, cricket and outdoor pursuits, which were the preserve of former European schools. The introduction of the 8-4-4 system of education in 1985 did nothing to upset the status quo regarding PE in all public primary and secondary schools. Students still receive only forty minutes of PE instruction per week (Korir, 2004).

The Kenyan PE syllabus is not a planned programme of lessons but includes topics that a teacher can select for each class according to the ability levels. In Kenya public secondary schools PE is allocated one period (40 minutes) a week to Forms 1 and 2, and two periods (80 minutes) a week to Forms 3 and 4.

The Kenyan PE syllabus is not a planned programme of lessons but includes topics that a teacher can select for each class according to their ability levels. The objectives of physical education are to help the learner to:

1. Develop physical and neuromuscular skills;
2. Perform skillful and efficient movements through physical and mental coordination;
3. Develop knowledge and experience of movement concepts for expression and communication;
4. Develop good citizenship and national cohesiveness through sport;
5. Develop social skills through physical activities;
6. Appreciate and participate in both national and international sport and dance for understanding, respect and preservation of own and other cultures;
7. Explore and appreciate the environment through physical activities;
8. Engage in physical activities in order to promote health, fitness and general body growth and development;
9. Appreciate PE and sport as a foundation for further education and career;
10. Identify, nurture and develop individual talents in specific sports;
11. Develop creativity, ability for inquiry and individual initiative;
12. Enjoy and appreciate participation in movement for its own sake;

13. Develop self-discipline through the understanding and application of rules and regulations in games and sports;

14. Promote the development of a variety of skills for recreation and positive use of leisure time and

15. Develop awareness of safety skills and preventive measures in PE and sports.

(Kenya Institute of Education [KIE], 2002)

These curricular objectives reveal that PE is valued, at least by those who constructed this syllabus. Furthermore, the syllabus also identifies various sporting activities that ought to be taught in secondary schools in Kenya. These activities are: games - hockey, volleyball, netball, basketball, soccer, rugby, rounders/softball, lawn tennis, badminton, handball, and table tennis; athletics (track and field); swimming; outdoor pursuits; martial arts; gymnastics and dance (KIE, 2002).

Although there is an official school syllabus, it is often not adhered to and individual schools determine PE programmes with huge variations in content and practice depending on the resources at the disposal of each school. While this diversity may be regarded as a positive thing, lack of proper supervision makes it difficult to determine the relevance and effectiveness of such programmes. In the sporting arena richer schools can afford to offer students a wide variety of sports but poorer ones can only provide the basic and less financially demanding sports like soccer, volleyball and athletics. Therefore the current study was meant to ascertain if the same scenario prevailed in public secondary schools in Kisii County.

2.1.2 Implementing Physical Education Curriculum

In the United States, the implementation of PE in secondary schools found out that despite well-publicized efforts by the government to promote PE in schools, the actual time students spend in PE has gone down in recent years (Luke, 2000). There is an obesity epidemic among young people (Shephard, 1997). However in Kenya teachers don't take PE seriously since it is non-examinable. Recognition of this has led to new dietary guidelines and healthier food offerings at school. However physical activities have been ignored. PE classes are forced to compete for limited class time and resources. Qualified PE instructors in Kenya are also in short supply (Wamae, 2009). This has also led to challenges as qualified teachers needed to implement PE implementation are not available to facilitate proper teaching of PE. In the long run this has made it ineffective to implement PE curriculum.

A research on Teachers' Perspectives on the challenges of teaching PE in urban schools showed that teachers reported five unique challenges that significantly shaped their thinking about students and their careers, along with strategies they used to overcome or manage those challenges. The challenges were; (a) inadequate resources for instruction, (b) implementing culturally relevant pedagogy, (c) handling violence from the community, (d) incorporating more games in curricula, and (e) teaching in a culture of basketball. Implications centered on the guilt-inducing nature of urban teaching, developing an informed and realistic vision of urban PE, and the role of teacher preparation and professional development (Smith, 2010).

PE in public schools faces many problems, chief of which is failure of policy implementation (Van Deventer, 2002). Since academic subjects are seen as key to a bright future, PE is regarded as a non-productive educational activity, a view that is shared by some teachers (Marshall & Hardman, 2000). In fact while PE is compulsory in the curriculum, there is a big disparity between policy and implementation because head teachers timetable it only to satisfy school inspectors. PE is not implemented in many of Kenya's secondary schools. Neither is it reinforced by the Ministry of Education. There remains a vast difference between official policy and actual delivery of PE. The Maseno study found out that PE has lagged behind in terms of implementation even though the policy is well thought-out. Therefore the current study sought to ascertain whether this was the same scenario in public secondary schools in Kisii County.

2.2 PE Facilities and Equipment

Article 5 of the 1978 UNESCO Charter called upon governments and other public authorities, schools and relevant private agencies to join in a corporate approach to plan and provide for facilities and equipment for Physical Education and sport (UNESCO, 1978). However, studies carried out since then point out that many nations still have not provided adequate facilities for Physical Education. Hardman & Marshall (2006) reported that programmes for Physical Education in New Guinea were being hampered by lack of facilities and equipment.

In a follow-up study on the state and status of Physical Education worldwide, Hardman & Marshall (2006) observed that the quality of facilities for Physical Education in most countries were below average and were limited in quantity. The study revealed that the quality of facilities was rated as below average or inadequate in all Central and Latin

American countries and in 67% of African countries. In Europe, there was a marked geo-political difference in quality and quantity of facilities and equipment with Western European countries having remarkably better facilities and equipment compared to the Eastern European countries (Hardman, 2008).

Previous studies carried out in Kenya since colonial times paint a grim picture concerning availability of facilities, equipment and supplies, and learning materials for teaching of PE at all levels of education with public secondary schools being most hit. The studies revealed that only high-cost private schools and former white secondary schools, now public national secondary schools like Nairobi School, Kenya High and Lenana High School had adequate facilities and equipment for teaching PE in Kenya (Nteere, 1982; Muniu, 1986; Kiganjo, 1987; Rintaugu, 1998; Sakwa, 2005). The current study endeavoured to establish whether the situation had improved over the years especially in Kisii County which is economically endowed in terms of agriculture hence it is assumed that in the county there should be enough resources to provide schools with the required resources for the teaching of PE.

2.3 Qualified PE Teaching Personnel

Article 4 of UNESCO's P.E. and Sport charter advocates for personnel entrusted to handle P.E. and sport to have appropriate qualifications and adequate levels of specialization. According to Talbot (2001) qualified P.E. personnel are more likely to use recommended teaching procedures and achieve programme outcomes than non-qualified personnel. Hardman (2000), in his study of the state and status of P.E. worldwide noted that there were only 9% trained P.E. specialists in Africa. This implies that P.E. is not taught or it is taught by untrained teachers which poses a lot challenges

in P.E. curriculum implementation in Africa. Children taught by P.E. specialists have higher levels of motor performance, physical activity levels, fitness, academic achievement and adherence to physical activity throughout adolescence (McKenzie et al., 2001).

For the qualified teaching personnel, the Hardman report (WHO, 2007) says that a common scenario is qualified 'specialist' physical education teachers at secondary level and 'generalist' teachers at elementary level; some countries do have specialist physical educators in elementary (primary) schools but the variation is wide and there are marked regional differences in some countries, the generalist teacher in primary schools is often inadequately or inappropriately prepared to teach physical education and initial teacher training presents a problem with minimal hours allocated for physical education teacher training and close to two-thirds of countries globally require in-service training (INSET), which means that one third does not; there are substantial variations in frequency (free choice or nothing to every five years) and time allocated (12 hours annually to 100 hours over 5 years) for INSET. A consistent feature on the issue of further professional development of teachers involved in physical education teaching is a need for INSET and a recognition that in some countries, in-service and resource materials has been minimal and has been exacerbated by a marked decline in physical education advisory service numbers. There is very limited use of volunteers in teaching physical education/sport classes. There is a need for induction, mentoring and monitoring for linked extra-curricular and out-of-school participation, the report then concludes.

Physical education is a compulsory subject in Teacher Training Colleges (TTCs) for primary school teaching. Therefore, all primary school teachers receive training in the

subject and are expected to teach it (MOEST, 2001). However, the primary teacher-training curriculum takes two years and requires a teacher to study 13 compulsory subjects, PE included. One must pass in at least eight of the 13 subjects, as well as teaching practice, to qualify for the award of a teacher's certificate. So while primary schools may have many teachers with basic training in PE, these teachers may not be adequately trained because of the way the course is structured. Yet Krotee and Wamukoya (1986, p.143) insist that because PE plays an integral role in the development of the child from birth to death, "it must be delivered by an expert, one that is knowledgeable, skillful and sensitive to the needs of the consumer as well as the growth and development process of the total individual."

Comparatively, the secondary school sector suffers an acute shortage of PE teachers. Most PE teachers in secondary schools are overburdened, as it is often the case that they single-handedly teach all PE lessons in their schools. This is compounded by the poor quality of some PE teachers, which negatively affects the quality of learning in schools. Secondary school teachers must have a four-year Bachelor of Education degree in order to be posted to schools. However, Bogonko (1992) decries the fact that the teaching course in Kenya's universities has become a dumping ground for students who failed to get admission into courses of their choice. Therefore, some teachers are of low academic quality while many lack commitment because they teach while actively seeking better-paying jobs outside teaching in what Eshiwani (1990) describes as "teacher wastage." This exacerbates an acute shortage of specialist PE teachers in secondary schools (Wamukoya & Hardman, 1992), which means that many secondary schools do not have a PE teacher.

A grim picture is painted regarding availability of qualified personnel teaching P.E. in public secondary schools from studies conducted in Kenya (Muniu, 1986; Kiganjo, 1987; posits that this may be attributed to the fact that PE is a non-examinable subject, few teachers specialized in PE as a subject while in college, and many prefer to teach other subjects other than PE. The current study sought to find out extent of adequacy and professional qualifications of P.E. teachers in secondary schools in Kisii, Kenya.

2.4 Time-Tabling of P.E.

Studies show most national curricular have allocated less time to PE (Hardman, 2008). This is despite benefits to be accrued from increasing time for physical activities in schools like better concentration, reduced disruptive behaviours and higher test scores in reading mathematics and writing (Stroot, 2007). Schools in the USA rarely implement the policy for having PE for at least 30 minutes per day and most PE classes are just treated as recess periods. Budgetary cuts and lack of teacher training are major problems facing PE in many states (Bunker & Thorpe, 2007). In Brazil currently, there is 1 or occasionally 2 classes of PE per week in contrast to the former three classes for PE per week for secondary schools. In Sweden in the last decade, time allocated for PE has been reduced from three hours a week to one hour per week in the compulsory school years due to budgetary constraints among other reasons (McNeil *et al.*, 2009). While PE is an integral part of the school curriculum in Ghana with about 70% of the Ghanians acknowledging its importance, it is assessed in schools internally and not much academic importance is attached to it; school heads are so prejudiced against the subject that most of the PE lessons are used for other activities (Ammah & Kwaw, 2005).

In Kenya policy requires that secondary schools allocate one period (40 minutes) a week to Forms 1 and 2, and two periods (80 minutes) a week to Forms 3 and 4 (KIE,

1987; Wamukoya & Hardman, 1992). But it is not uncommon for schools to only timetable one forty-minute period per week to PE in all classes, from Form 1 to Form 4. Often these forty minutes are not utilized well because of the lack of PE teachers. So, PE time is often considered unallocated time by students and teachers. For those schools that do have a PE teacher, much is left to the teacher to decide regarding use of these forty minutes (Wamukoya & Hardman, 1992). The Form 2 PE Teachers' Guide recommends that the forty minutes be used as follows: Introduction of 5-6 minutes; Development for 12-14 minutes; Application for 15-18 minutes; Conclusion of 1- 2 minutes (Kiganjo, Kamenju & Mwathi, 2003). Many teachers find it very challenging to teach meaningfully within such a limited time frame. PE is held in low regard in many schools in Kenya because it is a non-examinable subject and because of a lack of standards and a strong policy of implementation from the Ministry of Education, Science and Technology (MoEST). PE class time is used as a time to take a break from serious class work (Wanyama, 2011).

The frequency of cancellation of PE classes is very high in Kenya and is done by academic subject teachers who use allocated PE time to supplement that of their subjects (KIE, 2002). During times of adverse conditions or when extra time is needed for academic or other school activities, PE periods are often the first to be re-allocated. This happens especially during examination periods when lessons are abandoned to provide time for examinations and revision of past examination papers. Regarding timetabling, other subjects are positioned on the timetable with the highest priority, with PE often being placed on the timetable as the last lesson of the day, at a time when both students and teachers are tired. This is because PE teachers in Kenya struggle with status issues whereby PE is perceived to be of a lower status than other subjects despite

PE being legal and compulsory in Kenya (Wanyama, 2011). In fact while PE is compulsory in the curriculum, there is a big disparity between policy and implementation because head teachers timetable it only to satisfy school inspectors. PE is not implemented in many of Kenya's secondary schools (Marshall & Hardman, 2000).

2.5 Summary of Reviewed Literature

From the above literature, and based on the recommendations for further studies made from several previous studies (Rintaugu, 1998; Sakwa, 2005, and Hardman, 2008) for studies to be carried out on the implementation of the Physical Education curriculum in Secondary Schools in Kenya, there was little evidence of published work on the adequacy of PE teaching resources and the implementation of PE curriculum in public secondary schools in Kisii County. As such, a gap existed and there was need to find out whether public secondary schools in Kisii County had the necessary resources required to implement the revised 2002 secondary schools PE curriculum.

CHAPTER THREE: METHODOLOGY

3.1 Research Design

The study aimed at describing the status of resources for teaching of PE in public secondary schools in Kisii County without manipulating any variables. Therefore, the study adopted a descriptive survey research design. According to Mugenda and Mugenda (2003), descriptive research design aims at explaining and describing the state of affairs as they are. Descriptive survey method was chosen because it was appropriate in enabling the description of the prevailing adequacy of PE teaching resources as they are currently in public secondary schools in Kisii County.

3.2 Variables of the Study

Implementation of PE curriculum in various types of public secondary school which was a dependent variable is influenced by many independent variables which include; availability of facilities, equipment and supplies, time allocation, trained personnel and Instructional materials (text books, rule books and other reference materials.

3.3 Study Area

This study was conducted in public secondary schools in Kisii County in western Kenya. The county has nine sub-counties which are relatively rural with scattered urban centers (http://www.kisii.go.ke). The county has mostly small scale farming. The county has several secondary schools some of which are old, others newly established, community and government sponsored. According to KNEC (2013) statistics Kisii County had the highest number of secondary schools in the country. See appendices for the list of the schools. Kisii County was chosen as the locale for the study because of the feasibility of the study as it was within the reach of the researcher. Due to the

limitation of time at the researcher's disposal, it was envisaged as the most convenient location.

3.4 Target Population

The population of this study comprised of Physical Education Teachers and Head-Teachers of public secondary schools in Kisii County. These were targeted because the two categories of persons had first-hand information on Physical Education, sports and games in the schools. According to the County Education Office of Kisii (2014) there are 317 public secondary schools in Kisii County, Kenya. A breakdown of the public secondary schools is shown in Table 3.1 below:

Table 3.1: Matrix of Public Secondary Schools in Kisii County

School Type	No.
National	2
Extra-County	18
County	25
Sub-County	267
Total	**312**

Source: Education Office Kisii County (2014)

3.5 Sampling Techniques and Sample Size

The study used stratified random sampling to identify the subgroups in the target population and their proportions for selecting a sample size to show the representation within the group. Stratified random sampling is considered appropriate since it give all the respondents an equal chance of being selected and thus has no bias and eases in generalization of the obtained finding. Sampling was based on a model believed to be

objective by providing a sample large enough to reduce on random sampling errors by applying the Nachmias and Nachmias (2008) formulae:

$$\mathbf{n = \frac{NC^2}{C^2 + N - 1(e^2)}}$$

$$n = \frac{312(0.5)^2}{0.5^2 + 312 - 1(0.05)^2} = \underline{\mathbf{76}}$$

Where:

n is the sample size
N is the population
C is the coefficient of variation (0.5)
e is the level of precision (0.05)
(Nachmias & Nachmias, 2008)

The corresponding number of respondents from the public secondary schools sampled per every school type in Kisii country is given in Table 3.2.

Table 3.2: Kisii County Public Secondary Schools Respondents Sample Size

School Type	No. of Schools	Sample Size
National	2	2
Extra-County	18	4
County	25	6
Sub-County	267	64
Total	**312**	**76**

3.6 Research Instruments

A questionnaire and an observation checklist were used to collect data in order to achieve the objectives of the study. There were two sets of questionnaires; one for the principals and the other for PE teachers. The principals' questionnaire (PQ) was divided into two sections; Section A on personal data and Section B on provision of teaching

resources. The Physical Education Teachers' questionnaire (PETQ) was divided also into two sections A and B with section A being questions on personal data and B being questions on availability of teaching resources. Section B for both the principals' and PE teachers' questionnaire had five possible answers in a statement form from Strongly Agree (SA) to strongly disagree (SD) with SA carrying a score of 5 and SD carrying a score of 1. There was also an observation checklist that was divided into four sections. Section 1 of the checklist was for recording available teaching resources for all the topics in the PE syllabus from forms 1 to 4, while section II was for checking availability of schemes of work and content coverage. Section III was for checking availability of lesson plans for forms 1 to 4, while section IV was for checking availability of assessment records for forms 1 to 4.

Using more than one technique of data collection through a process of triangulation is seen as highly desirable as an overarching research strategy. The researcher also used an observation check-list to complement the other approach of data collection through questionnaires. It helped synchronize the information obtained through questionnaires thereby, enhanced the quality of evidence.

3.7 Pre-Testing

The data collection instruments for this study were tested for reliability and validity. The researcher conducted a pre-testing study in 7 schools within Kisii County which were subsequently not included in the actual study to ascertain the level of reliability of the research instruments. In establishing the reliability of instruments, Cronbach's alpha was used to measure internal consistency of the items.

3.8 Validity and Reliability of Research Instrument

Content validity of a measuring instrument is the extent to which it provides adequate coverage of the investigative questions guiding the study (Cooper & Schindler, 2003). To determine content validity of the instrument, the researcher discussed the items in the instrument with the supervisors from the P.E. Department, School of Applied Human Sciences, Kenyatta University. From the discussions, it was indicated by tick or cross for every item in the questionnaire, if it measured what it was supposed to measure or not. This helped the researcher to determine the validity of the research instruments by incorporating suggestions, clarifications and other relevant inputs. For a research instrument to be considered valid, the content selected and included in the questionnaire must be relevant to the variables being investigated (Mutai, 2000).

In order to determine the reliability of the instrument, the test- retest method was used. The questionnaire was administered twice to 7 public secondary schools in the study area Kisii County. To determine the coefficient of stability, Pearson Product Moment Correlation was used to analyse the two sets of data. This established the extent to which the questionnaire elicited the same responses every time it was administered. The reliability co-efficient indices (r) of the principals and teachers' questionnaires were 0.88 and 0.85 respectively. The researcher considered these values as showing a high consistency hence, established the reliability of the instruments.

3.9 Data Collection Procedure

Once given approval by the Graduate School of Kenyatta University to collect data (Appendix A), the researcher sought a permit from the National Council for Science and Technology (Appendix B) and then moved from one school to another

administering the questionnaires. After establishing a rapport with the respondents, the researcher administered instruments in person. Ample time was given to the respondents to complete the questionnaires. The researcher filled the observation checklist as the principals and PE teachers filled their respective questionnaires.

3.10 Data Analysis and Presentation

Data was coded and organised for analysis using the Statistical Package for Social Sciences (SPSS) version 22.0. Since the study aimed at establishing the situation as it was, the data was mainly subjected to descriptive statistics using frequencies and percentages. Descriptive statistics enabled the researcher to describe the aggregation of raw data in numerical terms (Neuman, 2000). Findings were presented in the form of tables, graphs and pie charts. One way ANOVA was utilized to reject or accept hypotheses.

3.11 Logistical and Ethical Considerations

The process of data collection was guided by the ethical considerations of confidentiality, anonymity, responsibility, respect, competence, consent, security and understanding. Before carrying out the study, a Research Authorization from Graduate School, Kenyatta University and a Research Permit from NACOSTI were obtained to aid in data collection. The research respondents were briefed on the purpose of the study by the researcher and were requested to give their informed consent to participate in the study (Appendix F). Their participation was wholly voluntary and their identities were kept anonymous. They were also informed of their right to withdraw from the study at any stage or decline to respond to whichever questions they felt uncomfortable with.

CHAPTER FOUR: FINDINGS

4.1 Introduction

This chapter presents the study findings and associated issues based on the objectives of the study which were centered on assessing the teaching resources available for the implementation of the PE curriculum in public secondary schools in Kisii County. The study was guided by the following specific objectives:

i. To establish the stakeholders (PE Teachers and Head Teachers) perceptions on availability of outdoor and indoor teaching facilities for the implementation of physical education curriculum in public secondary schools in Kisii County.

ii. To ascertain the extent of adequacy as perceived by PE teachers of PE equipment and supplies available for the implementation of the PE curriculum in public schools in Kisii County

iii. To determine teachers' rating of extent to which PE teaching facilities are maintained for effective teaching of the subjects

iv. To determine whether PE teachers in public Secondary Schools in Kisii County prepare and have schemes of work, lesson plans, and lesson notes for the teaching of PE and if this differed based on the School category.

v. To determine whether public Secondary Schools in Kisii County have adequate number of trained PE teachers to implement the PE curriculum

vi. To establish the extent of implementation of the PE curriculum in public Secondary Schools in Kisii County

vii. To ascertain the adequacy of instructional materials such as text books, rule books and other reference materials as perceived by teachers available for the implementation of the PE curriculum in Public Secondary Schools in Kisii county

viii. To ascertain whether PE is allocated recommended time by the Ministry of education in the time table in Public Secondary schools in Kisii County.

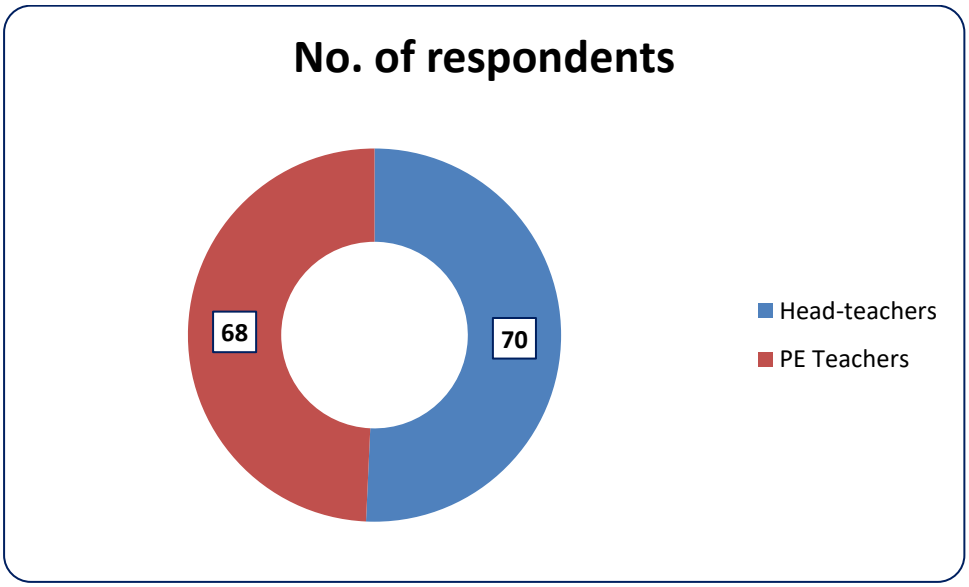
4.2 Instrument Return Rate

The researcher visited 76 public secondary schools in Kisii County for purposes of data collection. The return rate of the questionnaires is presented in Table 4.1.

Table 4.1: Instrument Return Rate

The results in graph 4.1 indicate that 138 out of 152 targeted respondents filled in and submitted the respective questionnaire. This translated to a 91% return rate which was considered adequate for the study. Out of a target of

Graph 4.1: Number of Respondents from Target Population



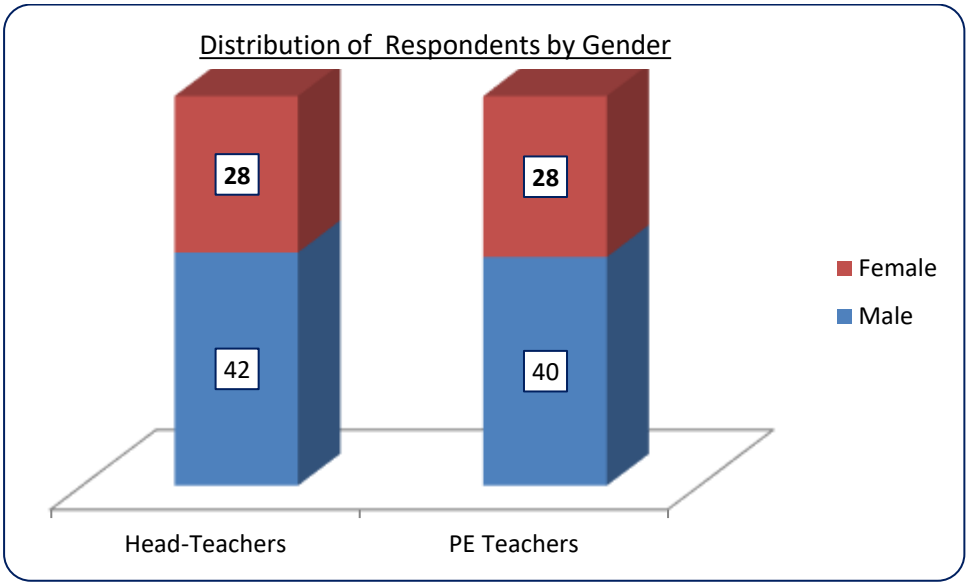
4.3 Demographic Information of the Respondents

This section presents analysis of the characteristics of the respondents who took part in this study. The demographic details/characteristics which were sought included gender, age, highest level of professional qualifications and work experience. The school details sought was the type of school and number of students currently enrolled in the school.

4.3.1 Gender of the Respondents

The gender of the head-teachers and PE teachers who took part in the study is presented in Table 4.2.

Table 4.2: Distribution of Respondents by Gender



Results in Table 4.2 show that 42(60%) of the head-teachers were male while 28(40%) were female. It was also found that 40(59%) of the PE teachers were male while 28(41%) were female. Overall most of the respondents in the study 82(59%) were male while 56(41%) were female.

The age of the head-teachers and PE teachers who participated in this study is presented in the next subsection.

4.3.2 Age of the Respondents

The findings on the age of the head-teachers and PE teachers who took part in this study is presented in Table 4.3.

Table 4.3: Distribution of Respondents by Age

Age (Years)	Head-Teachers		PE Teachers		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Less than 30	15	21.43	20	29.41	35	25.36
30 to 39	30	42.86	30	44.12	60	43.48
40 to 49	20	28.57	10	14.70	30	21.74
Above 50	5	7.14	8	11.77	13	9.42
Total	**70**	**100.00**	**68**	**100.00**	**138**	**100.00**

Results in Table 4.3 show that majority 30(43%) of the head-teachers were aged between 30 to 39 years, 20(29%) were aged 40 to 49 years and 15(21%) were below 30 years of age. It was also found that majority of the PE teachers 30(44%) were aged between 30 to 39 years, 20(29%) were below 30 years of age and 10(15%) were aged between 40 to 49 years. Overall majority of the respondents 60(43%) were aged between 30 to 39 years, 35(25%) were below 30 years of age and 30(22%) were aged between 40 to 49 years.

The highest level of professional qualifications of the head-teachers and PE teachers is presented in the next subsection.

4.3.3 Highest Level of Professional Qualifications of the Respondents

The findings on the highest level of professional qualifications of the head-teachers and PE teachers who took part in this study is presented in Table 4.4.

Table 4.4: Highest Level of Professional Qualifications of the Respondents

Professional Qualification	Head-Teachers		PE Teachers		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Diploma	0	0	14	20.59	14	10.15
Graduate	63	90.00	48	70.59	111	80.43
Postgraduate	7	10.00	6	8.82	13	9.42
Total	**70**	**100.00**	**68**	**100.00**	**138**	**100.00**

Results in Table 4.4 show that majority of the head-teachers 63(90%) had a first degree while 7(10%) had masters degree. It was also found that majority of the PE teachers 48(71%) had a first degree, 14(21%) had diploma qualifications and 6(9%) had a masters degree. Overall majority of the respondents 111(80%) had a first degree, 14(11%) had diplomas and 13(9%) had masters degree.

The work experience of the head-teachers and PE teachers is presented in the next subsection.

4.3.4 Work Experience of the Respondents

The head-teachers and PE teachers were asked to indicate their duration of service as head-teachers and PE teachers respectively. These findings are presented in Table 4.5

Table 4.5: Work Experience of the Respondents

Experience (Years)	Head-Teachers		PE Teachers		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
0 to 5	15	21.43	16	23.53	31	22.46
6 to 10	28	40.00	25	36.76	53	38.40
11 to 15	14	20.00	14	20.59	28	20.30
Over 15	13	18.57	13	19.12	26	18.84
Total	**70**	**100.00**	**68**	**100.00**	**138**	**100.00**

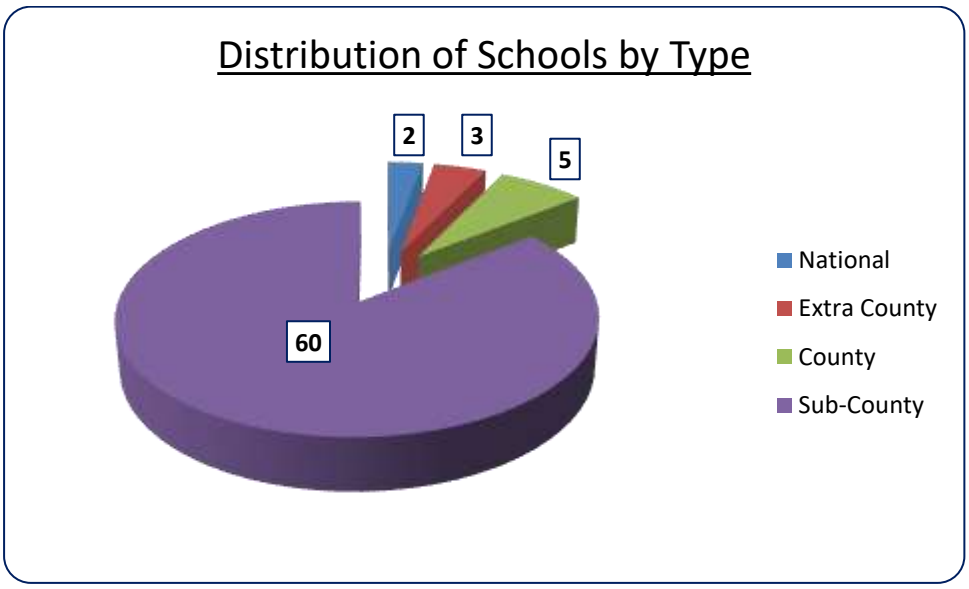
Results in Table 4.5 indicate that majority of the head-teachers 28(40%) had served as head-teachers for a duration of 6 to 10 years, 15(21%) for between 0 to 5 years, 14(20%) for between 11 to 15 years while 13(19%) for over 15 years. It was also found that majority of the PE teachers 25(37%) had served as PE teachers for a duration of 6 to 10 years, 16(23%) for between 0 to 5 years, 14(21%) for between 11 to 15 years while 13(19%) for over 15 years. Overall majority of the respondents 53(38%) had served in their positions for a duration of 6 to 10 years, 31(22%) for between 0 to 5 years, 28(20%) for between 11 to 15 years while 26(19%) had served for over 15 years.

The next subsection presents the type of public secondary schools that took part in the study.

4.3.5 School Type

To establish the type of public secondary schools that took part in the study, the head-teachers were asked to indicate the type of their schools. The findings of the school types are presented in Table 4.6.

Table 4.6: Distribution of Schools by Type



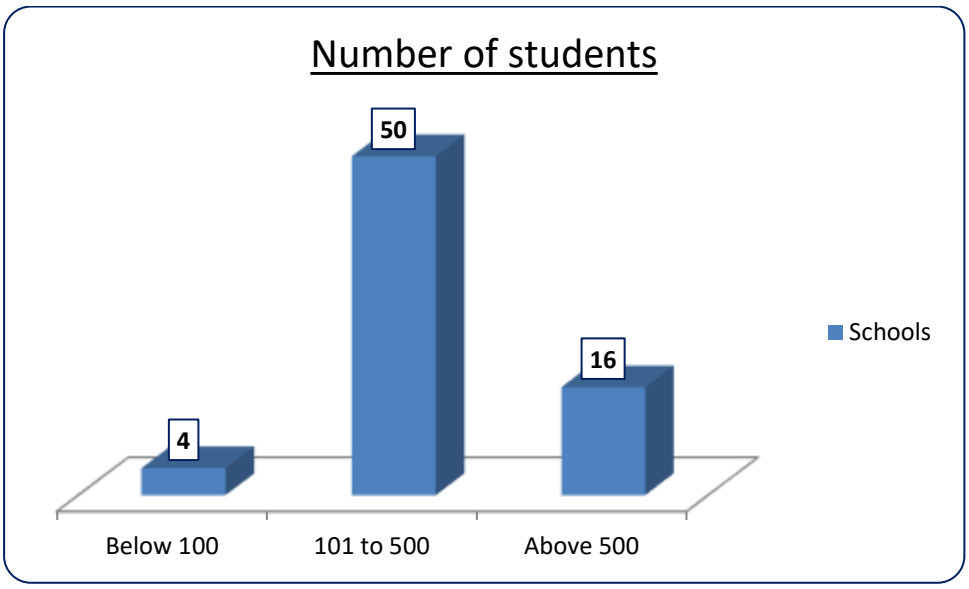
Results in Table 4.6 show that majority 60(86%) of the public secondary schools that took part in the study were sub-county secondary schools, 5(7%) were county secondary schools, 3(4%) were extra-county secondary schools while 2(3%) were national secondary schools.

The next subsection presents the number of students currently enrolled in the public secondary schools that took part in the study.

4.3.6 Number of Students Enrolled in Public Secondary Schools

The findings on number of students currently enrolled in the public secondary schools that took part in the study based on the responses from the head-teachers are presented in Table 4.7.

Table 4.7: Number of Students in Public Secondary Schools Kisii County



Results in Table 4.7 show that majority 50(71%) of the public secondary schools that took part in the study had student enrollments of between 101 to 500 students, 16(23%) had student enrollments of above 500 students while 4(6%) had student enrollments of below 100 students.

The following sections present findings of the study analyzed according to the research objectives, questions and hypothesis.

4.4 Extent of Adequacy of Indoor and Outdoor PE Teaching Facilities

4.4.1 Availability of Indoor and Outdoor PE Teaching Facilities

The study sought to find out the availability of Physical Education teaching facilities in the sampled schools. The findings emanating from the observation checklist are as presented in Table 4.8.

Table 4.8: Indoor and Outdoor PE Teaching Facilities Available in Public Secondary Schools Kisii County

Facility	Number	Percentage (N=70)
A. Outdoor Facilities:		
Football Field	70	100.00
Hockey Field	30	42.86
Rugby Field	30	42.86
Cricket Field	0	0
Athletics Track	55	78.57
Basketball Court	37	52.86
Volleyball Court	50	71.43
Netball Court	50	71.43
Handball Court	40	57.14
Lawn Tennis Court	10	14.29
B. Indoor Facilities:		
Swimming Pool	0	0
Multipurpose Hall for Indoor Games	20	28.57
Gymnasium	10	14.29
Storage Rooms	35	50.00
Changing Rooms	33	47.14

Table 4.8 shows that all of the schools had at least one football field. The findings also reveal that there was no secondary school with a swimming pool and a cricket field. Only 15 (5%) schools did not have athletics track and another 20 (7%) did not have volleyball and netball courts. Almost half of the schools studied did not have storage and changing rooms while slightly more than half of the schools studied had handball

and basketball courts. It was finally found that only 10 (4%) schools had a lawn tennis court and gymnasium.

The next sub-sections present head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in the different types of public secondary schools in Kisii County.

4.4.2 Adequacy of Indoor and Outdoor PE Teaching Facilities

The findings on National Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools are presented in Table 4.9.

Table 4.9: National Schools Head-Teachers and PE Teachers Responses on Adequacy of Indoor and Outdoor PE Teaching Facilities

Statement	5	4	3	2	1
The football field is adequate for the number of students in the school.	-	2 (50%)	1 (25%)	1 (25%)	-
The hockey field is adequate for the number of students in the school.	-	1 (25%)	2 (50%)	1 (25%)	-
The rugby field is adequate for the number of students in the school.	-	2 (50%)	-	2 (50%)	-
The athletics track is adequate for the number of students in the school.	-	2 (50%)	1 (25%)	1 (25%)	-
The basketball court is adequate for the number of students in the school.	-	1 (25%)	2 (50%)	1 (25%)	-
The volleyball court is adequate for the number of students in the school.	1 (25%)	1 (25%)	1 (25%)	1 (50%)	-
The netball court is adequate for the number of students in the school.	1 (25%)	1 (25%)	1 (25%)	1 (50%)	-
The handball court is adequate for the number of students in the school.	1 (25%)	1 (25%)	1 (25%)	1 (50%)	-
The lawn tennis court is adequate for the number of students in the school.	-	1 (25%)	-	1 (25%)	2 (50%)
The multipurpose hall for indoor games is adequate for the number of students in the school.	-	2 (50%)	1 (25%)	1 (25%)	-
The gymnasium is adequate for the number of students in the school.	-	-	1 (25%)	2 (50%)	1 (25%)
The storage rooms are adequate for the number of students in the school.	-	1 (25%)	1 (25%)	2 (50%)	-
The changing rooms are adequate for the number of students in the school.	-	1 (25%)	1 (25%)	2 (50%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.9 show that 50% of the head-teachers and PE Teachers in National Secondary Schools in Kisii County agreed that the football fields, athletics track, rugby fields and multipurpose halls for indoor games in their schools were adequate for the number of students with 50% disagreeing that the rugby fields,

gymnasium, storage and changing rooms in their schools were adequate for the number of students. The findings also show that 25% of the head-teachers and PE Teachers in National Secondary Schools in Kisii County strongly agreed that the volleyball, netball and handball courts in their schools were adequate for the number of students with another 50% strongly disagreeing that the lawn tennis courts in their schools were adequate for the number of students. The mean score of the National Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools was 2.98 (Table 4.13) indicating that they neither agreed nor disagreed that the various indoor and outdoor PE teaching facilities available in their schools were adequate for the number of students in these schools.

Table 4.10 presents findings on Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools.

Table 4.10: Extra-County Schools Head-Teachers and PE Teachers Responses on Adequacy of Indoor and Outdoor PE Teaching Facilities

Statement	5	4	3	2	1
The football field is adequate for the number of students in the school.	1 (17%)	3 (50%)	1 (17%)	1 (17%)	-
The hockey field is adequate for the number of students in the school.	-	2 (34%)	1 (17%)	3 (50%)	-
The rugby field is adequate for the number of students in the school.	-	2 (34%)	1 (17%)	3 (50%)	-
The athletics track is adequate for the number of students in the school.	1 (17%)	2 (34%)	1 (17%)	2 (34%)	-
The basketball court is adequate for the number of students in the school.	-	1 (17%)	2 (34%)	3 (50%)	-
The volleyball court is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The netball court is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The handball court is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The lawn tennis court is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The multipurpose hall for indoor games is adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-
The gymnasium is adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-
The storage rooms are adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-
The changing rooms are adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.10 show that 50% of the head-teachers and PE Teachers in Extra-County Secondary Schools in Kisii County agreed that the football fields in their schools were adequate for the number of students with 66% disagreeing that the volleyball courts, netball courts, handball courts, lawn tennis courts, multipurpose hall for indoor games, gymnasium, storage and changing rooms in their schools were

adequate for the number of students. The findings also show that 17% of the head-teachers and PE Teachers in Extra-County Secondary Schools in Kisii County strongly agreed that the football fields, athletics track, multipurpose hall for indoor games, gymnasium, storage and changing rooms in their schools were adequate for the number of students. The mean score of the Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools was 2.82 (Table 4.13) indicating that they neither agreed nor disagreed that the various indoor and outdoor PE teaching facilities available in their schools were adequate for the number of students in these schools.

Table 4.11 presents findings on County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools.

Table 4.11: County Schools Head-Teachers and PE Teachers Responses on Adequacy of Indoor and Outdoor PE Teaching Facilities

Statement	5	4	3	2	1
The football field is adequate for the number of students in the school.	1 (10%)	3 (30%)	-	4 (40%)	2 (20%)
The hockey field is adequate for the number of students in the school.	1 (10%)	3 (30%)	-	5 (50%)	1 (10%)
The rugby field is adequate for the number of students in the school.	-	-	2 (20%)	6 (60%)	2 (20%)
The athletics track is adequate for the number of students in the school.	2 (20%)	2 (20%)	1 (10%)	4 (40%)	1 (10%)
The basketball court is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The volleyball court is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The netball court is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The handball court is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The lawn tennis court is adequate for the number of students in the school.	-	-	-	7 (70%)	3 (30%)
The multipurpose hall for indoor games is adequate for the number of students in the school.	-	-	-	6 (60%)	4 (40%)
The gymnasium is adequate for the number of students in the school.	-	-	-	6 (60%)	4 (40%)
The storage rooms are adequate for the number of students in the school.	-	-	2 (20%)	5 (50%)	3 (30%)
The changing rooms are adequate for the number of students in the school.	-	-	2 (20%)	5 (50%)	3 (30%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.11 show that 30% of the head-teachers and PE Teachers in County Secondary Schools in Kisii County agreed that the football and hockey fields in their schools were adequate for the number of students with 60% disagreeing that the rugby fields, basketball courts, volleyball courts, netball courts, handball courts,

multipurpose hall for indoor games and gymnasium in their schools were adequate for the number of students. The findings also show that 20% of the head-teachers and PE Teachers in County Secondary Schools in Kisii County strongly agreed that the athletics track in their schools were adequate for the number of students with 40% of the head-teachers and PE Teachers in County Secondary Schools in Kisii County strongly disagreeing that the multipurpose hall for indoor games and gymnasium in their schools were adequate for the number of students. The mean score of the County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools was 2.22 (Table 4.13) indicating that they disagreed that the various indoor and outdoor PE teaching facilities available in their schools were adequate for the number of students in these schools.

Table 4.12 presents findings on Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools.

Table 4.12: Sub-County Schools Head-Teachers and PE Teachers Responses on Adequacy of Indoor and Outdoor PE Teaching Facilities

Statement	5	4	3	2	1
The football field is adequate for the number of students in the school.	-	20 (17%)	20 (17%)	58 (49%)	20 (17%)
The hockey field is adequate for the number of students in the school.	-	10 (8%)	-	78 (67%)	30 (25%)
The rugby field is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The athletics track is adequate for the number of students in the school.	-	20 (17%)	20 (17%)	58 (49%)	20 (17%)
The basketball court is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The volleyball court is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The netball court is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The handball court is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The lawn tennis court is adequate for the number of students in the school.	-	-	-	80 (69%)	38 (31%)
The multipurpose hall for indoor games is adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)
The gymnasium is adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)
The storage rooms are adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)
The changing rooms are adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.12 show that 17% of the head-teachers and PE Teachers in Sub-County Secondary Schools in Kisii County agreed that the football and athletics track in their schools were adequate for the number of students with 76% disagreeing that the multipurpose hall for indoor games, gymnasium, storage rooms and changing rooms in

their schools were adequate for the number of students. The findings also show that 25% of the head-teachers and PE Teachers in Sub-County Secondary Schools in Kisii County strongly disagreed that the hockey fields, rugby fields, basketball courts, volleyball courts, netball courts and handball courts in their schools were adequate for the number of students. The mean score of the Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various indoor and outdoor PE teaching facilities available in their schools was 1.94 (Table 4.13) indicating that they disagreed that the various indoor and outdoor PE teaching facilities available in their schools were adequate for the number of students in these schools.

The next sub-section presents findings on testing of the hypothesis $H_{01\,(i)}$ The extent of adequacy of outdoor and indoor PE Teaching Facilities did not significantly differ based on the type of school.

4.4.3 Hypothesis Testing on Extent of Adequacy of Indoor and Outdoor PE Teaching Facilities in Public Secondary Schools in Kisii County

To determine whether the differences in the adequacy of indoor and outdoor PE teaching facilities in the four types of schools were significant, one-way ANOVA was done as shown in Table 4.13.

Table 4.13: ANOVA Summary Table on Adequacy of Indoor and Outdoor PE Teaching Facilities

			ANOVA Summary					
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	2.98	Between Groups	8.6712	3	2.8904	10.2603	0.0000
Extra-County	6	2.82						
County	10	2.22						
Sub-County	118	1.94	Within Groups	37.7484	134	0.2817		
Total	**138**	**2.49**	**Total**	**46.4196**	**137**			

Results in Table 4.13 show that there are significant differences in the adequacy of indoor and outdoor PE teaching facilities in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F (3, 134) = 10.2603$, $p = 0.0000$]. To determine the strength of the resulting significant difference, a post-hoc test of Tukey HSD was computed. Post hoc test of Tukey HSD showed that the extent of adequacy of indoor and outdoor PE teaching facilities for National Secondary Schools ($M = 2.98$) differed significantly from Sub-County Secondary Schools ($M = 1.94$). Secondly the extent of adequacy of indoor and outdoor PE teaching facilities for Extra-County Secondary Schools ($M = 2.82$), significantly differed from Sub-County Secondary Schools ($M = 1.94$). However, the extent of adequacy of indoor and outdoor PE teaching facilities did not differ significantly between National and Extra-County Secondary Schools and between County and Sub-County Secondary Schools. Therefore, the hypothesis $H_{01\,(i)}$ The extent of adequacy of outdoor and indoor PE Teaching Facilities did not significantly differ based on the type of school was rejected.

The next section presents findings on head-teachers and PE teachers' ratings on the extent of adequacy of the various PE Equipment and apparatus available in the different types of public secondary schools in Kisii County.

4.5 Extent of Adequacy of PE Equipment and Apparatus

4.5.1 Availability of PE Equipment and Apparatus

The study sought to find out the availability of Physical Education Equipment and Apparatus in the sampled schools. The findings emanating from the observation checklist are as presented in Table 4.14.

Table 4.14: PE Equipment and Apparatus Available in Public Secondary Schools Kisii County

Equipment	No. In All Schools	Average Number Per School (N=70)
Games Kit (Uniform) in Set for various games	3000	43
Footwear (In pairs)	2225	32
Soccer Equipment	395	6
Hockey Equipment	235	3
Rugby Equipment	156	2
Athletics Equipment (Sprints, Jumps, Relays, Distance Running, Hurdling, Javelin, Discus, Pole Vault, Shot Put & Tug-0f-war)	375	5
Basketball Equipment	290	4
Volleyball Equipment	220	3
Netball Equipment	218	3
Handball Equipment	213	3
Swimming Gear	0	0
Lawn Tennis Equipment	48	1
Indoor Games Equipment (Badminton & Table Tennis)	160	2
Gymnastics/Physical Fitness & Dance Equipment	42	1

Table 4.14 shows that there was averagely 43 sets of games kits, 32 pairs of footwear, 6 soccer equipment, 5 athletics equipment and 4 basketball equipment per school. The averages were calculated from dividing the total number of items by the numbers of schools which were 70.

The next sub-sections present head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in the different types of public secondary schools in Kisii County.

4.5.2 Adequacy of PE Equipment and Apparatus

The findings on National Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE Equipment and Apparatus available in their schools are presented in Table 4.15.

Table 4.15: National Schools Head-Teachers and PE Teachers Responses on Adequacy of PE Equipment and Apparatus

Statement	5	4	3	2	1
The soccer equipment in my school is adequate for the number of students in the school.	-	2 (50%)	1 (25%)	1 (25%)	-
The hockey equipment in my school is adequate for the number of students in the school.	-	1 (25%)	2 (50%)	1 (25%)	-
The rugby equipment in my school is adequate for the number of students in the school.	-	2 (50%)	-	2 (50%)	-
The athletics equipment in my school is adequate for the number of students in the school.	-	2 (50%)	1 (25%)	1 (25%)	-
The basketball equipment in my school is adequate for the number of students in the school.	-	1 (25%)	2 (50%)	1 (25%)	-
The volleyball equipment in my school is adequate for the number of students in the school.	1 (25%)	1 (25%)	1 (25%)	1 (50%)	-
The netball equipment in my school is adequate for the number of students in the school.	1 (25%)	1 (25%)	1 (25%)	1 (50%)	-
The handball equipment in my school is adequate for the number of students in the school.	1 (25%)	1 (25%)	1 (25%)	1 (50%)	-
The lawn tennis equipment in my school is adequate for the number of students in the school.	-	1 (25%)	-	1 (25%)	2 (50%)
The indoor games equipment in my school is adequate for the number of students in the school.	-	2 (50%)	1 (25%)	1 (25%)	-
The gymnastics/physical fitness & dance equipment in my school is adequate for the number of students in the school..	-	-	1 (25%)	2 (50%)	1 (25%)
The games kit is adequate for the number of students in the school.	-	1 (25%)	1 (25%)	2 (50%)	-
The footwear is adequate for the number of students in the school.	-	1 (25%)	1 (25%)	2 (50%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.15 show that 50% of the head-teachers and PE Teachers in National Secondary Schools in Kisii County agreed that the soccer equipment, rugby equipment, athletics equipment and indoor games equipment in their schools were adequate for the number of students with 50% disagreeing that the rugby equipment,

physical fitness equipment, games kit and footwear in their schools were adequate for the number of students. The findings also show that 25% of the head-teachers and PE Teachers in National Secondary Schools in Kisii County strongly agreed that the volleyball equipment, netball equipment and handball equipment in their schools were adequate for the number of students with another 50% strongly disagreeing that the lawn tennis equipment in their schools were adequate for the number of students. The mean score of the National Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools was 2.98 (Table 4.19) indicating that they neither agreed nor disagreed that the various PE equipment and apparatus available in their schools were adequate for the number of students in these schools.

Table 4.16 presents findings on Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools.

Table 4.16: Extra-County Schools Head-Teachers and PE Teachers Responses on Adequacy of PE Equipment and Apparatus

Statement	5	4	3	2	1
The soccer equipment in my school is adequate for the number of students in the school.	1 (17%)	3 (50%)	1 (17%)	1 (17%)	-
The hockey equipment in my school is adequate for the number of students in the school.	-	2 (34%)	1 (17%)	3 (50%)	-
The rugby equipment in my school is adequate for the number of students in the school.	-	2 (34%)	1 (17%)	3 (50%)	-
The athletics equipment in my school is adequate for the number of students in the school.	1 (17%)	2 (34%)	1 (17%)	2 (34%)	-
The basketball equipment in my school is adequate for the number of students in the school.	-	1 (17%)	2 (34%)	3 (50%)	-
The volleyball equipment in my school is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The netball equipment in my school is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The handball equipment in my school is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The lawn tennis equipment in my school is adequate for the number of students in the school.	-	1 (17%)	1 (17%)	4 (66%)	-
The indoor games equipment in my school is adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-
The gymnastics/physical fitness & dance equipment in my school is adequate for the number of students in the school..	1 (17%)	1 (17%)	-	4 (66%)	-
The games kit is adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-
The footwear is adequate for the number of students in the school.	1 (17%)	1 (17%)	-	4 (66%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.16 show that 50% of the head-teachers and PE Teachers in Extra-County Secondary Schools in Kisii County agreed that the soccer equipment in their schools were adequate for the number of students with 66% disagreeing that the volleyball equipment, netball equipment, handball equipment, lawn tennis equipment,

indoor games equipment, gymnasium equipment, games kit and footwear in their schools were adequate for the number of students. The findings also show that 17% of the head-teachers and PE Teachers in Extra-County Secondary Schools in Kisii County strongly agreed that the soccer equipment, athletics equipment, indoor games equipment, gymnasium equipment, games kit and footwear in their schools were adequate for the number of students. The mean score of the Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools was 2.82 (Table 4.19) indicating that they neither agreed nor disagreed that the various PE equipment and apparatus available in their schools were adequate for the number of students in these schools.

Table 4.17 presents findings on County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools.

Table 4.17: County Schools Head-Teachers and PE Teachers Responses on Adequacy of PE Equipment and Apparatus

Statement	5	4	3	2	1
The soccer equipment in my school is adequate for the number of students in the school.	1 (10%)	3 (30%)	-	4 (40%)	2 (20%)
The hockey equipment in my school is adequate for the number of students in the school.	1 (10%)	3 (30%)	-	5 (50%)	1 (10%)
The rugby equipment in my school is adequate for the number of students in the school.	-	-	2 (20%)	6 (60%)	2 (20%)
The athletics equipment in my school is adequate for the number of students in the school.	2 (20%)	2 (20%)	1 (10%)	4 (40%)	1 (10%)
The basketball equipment in my school is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The volleyball equipment in my school is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The netball equipment in my school is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The handball equipment in my school is adequate for the number of students in the school.	-	2 (20%)	1 (10%)	6 (60%)	1 (10%)
The lawn tennis equipment in my school is adequate for the number of students in the school.	-	-	-	7 (70%)	3 (30%)
The indoor games equipment in my school is adequate for the number of students in the school.	-	-	-	6 (60%)	4 (40%)
The gymnastics/physical fitness & dance equipment in my school is adequate for the number of students in the school..	-	-	-	6 (60%)	4 (40%)
The games kit is adequate for the number of students in the school.	-	-	2 (20%)	5 (50%)	3 (30%)
The footwear is adequate for the number of students in the school.	-	-	2 (20%)	5 (50%)	3 (30%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.17 show that 30% of the head-teachers and PE Teachers in County Secondary Schools in Kisii County agreed that the soccer equipment and hockey equipment in their schools were adequate for the number of students with 60% disagreeing that the rugby equipment, basketball equipment, volleyball equipment,

netball equipment, handball equipment, indoor games equipment and gymnasium equipment in their schools were adequate for the number of students. The findings also show that 20% of the head-teachers and PE Teachers in County Secondary Schools in Kisii County strongly agreed that the athletics equipment in their schools were adequate for the number of students with 40% of the head-teachers and PE Teachers in County Secondary Schools in Kisii County strongly disagreeing that the indoor games equipment and gymnasium equipment in their schools were adequate for the number of students. The mean score of the County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools was 2.22 (Table 4.19) indicating that they disagreed that the various PE equipment and apparatus available in their schools were adequate for the number of students in these schools.

Table 4.18 presents findings on Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools.

Table 4.18: Sub-County Schools Head-Teachers and PE Teachers Responses on Adequacy of PE Equipment and Apparatus

Statement	5	4	3	2	1
The soccer equipment in my school is adequate for the number of students in the school.	-	20 (17%)	20 (17%)	58 (49%)	20 (17%)
The hockey equipment in my school is adequate for the number of students in the school.	-	10 (8%)	-	78 (67%)	30 (25%
The rugby equipment in my school is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The athletics equipment in my school is adequate for the number of students in the school.	-	20 (17%)	20 (17%)	58 (49%)	20 (17%)
The basketball equipment in my school is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The volleyball equipment in my school is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The netball equipment in my school is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The handball equipment in my school is adequate for the number of students in the school.	-	8 (7%)	-	80 (69%)	30 (25%)
The lawn tennis equipment in my school is adequate for the number of students in the school.	-	-	-	80 (69%)	38 (31%)
The indoor games equipment in my school is adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)
The gymnastics/physical fitness & dance equipment in my school is adequate for the number of students in the school..	-	-	8 (7%)	90 (76%)	20 (17%)
The games kit is adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)
The footwear is adequate for the number of students in the school.	-	-	8 (7%)	90 (76%)	20 (17%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.18 show that 17% of the head-teachers and PE Teachers in Sub-County Secondary Schools in Kisii County agreed that the soccer equipment and athletics equipment in their schools were adequate for the number of students with 76% disagreeing that the indoor games equipment, gymnasium equipment, games kit and

footwear in their schools were adequate for the number of students. The findings also show that 25% of the head-teachers and PE Teachers in Sub-County Secondary Schools in Kisii County strongly disagreed that the hockey equipment, rugby equipment, basketball equipment, volleyball equipment, netball equipment and handball equipment in their schools were adequate for the number of students. The mean score of the Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of adequacy of the various PE equipment and apparatus available in their schools was 1.94 (Table 4.19) indicating that they disagreed that the various PE equipment and apparatus available in their schools were adequate for the number of students in these schools.

The next sub-section presents findings on testing of the hypothesis that the extent of adequacy of PE equipment and apparatus did not significantly differ based on the type of school.

4.5.3 Hypothesis Testing on Extent of Adequacy of PE Equipment and Apparatus in Public Secondary Schools in Kisii County

To determine whether the differences in the adequacy of PE equipment and apparatus in the four types of schools were significant, one-way ANOVA was done as shown in Table 4.19.

Table 4.19: ANOVA Summary Table on Adequacy of PE Equipment and Apparatus

			ANOVA Summary					
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	2.98	Between Groups	8.6712	3	2.8904	4.5177	0.0047
Extra-County	6	2.82						
County	10	2.22						
Sub-County	118	1.94	Within Groups	85.7329	134	0.6398		
Total	**138**	**2.49**	**Total**	**94.4040**	**137**			

Results in Table 4.19 show that there are significant differences in the adequacy of PE equipment and apparatus in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F(3, 134) = 4.5177$, $p = 0.0047$]. To determine the strength of the resulting significant difference, a post-hoc test of Tukey HSD was computed. Post hoc test of Tukey HSD showed that the extent of adequacy of PE equipment and apparatus for National Secondary Schools ($M = 2.98$) differed significantly from Sub-County Secondary Schools ($M = 1.94$). Secondly the extent of adequacy of PE equipment and apparatus for Extra-County Secondary Schools ($M = 2.82$), significantly differed from Sub-County Secondary Schools ($M = 1.94$). However, the extent of adequacy of PE equipment and apparatus did not differ significantly between National and Extra-County Secondary Schools and between County and Sub-County Secondary Schools. Therefore, the hypothesis H_{01} the perception of teachers on the extent of adequacy of PE Equipment and Apparatus did not significantly differ based on the type of school was rejected.

The next section presents findings on head-teachers and PE teachers' ratings on the extent of adequacy of Trained PE Teachers available in the different types of public secondary schools in Kisii County.

4.6 Adequacy of Trained PE Teachers

4.6.1 Number of PE Teachers in Public Secondary Schools in Kisii County

In establishing the number of P.E teachers in the schools, the head-teachers and PE teachers were asked to indicate the number of PE teachers in their schools. These results are presented in Table 4.20.

Table 4.20: Number of PE Teachers in Public Secondary Schools in Kisii County

Number	Head-Teachers		PE Teachers		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1	49	70.00	25	36.76	74	53.62
2	10	14.28	21	30.88	31	22.46
3	7	10.00	14	20.59	21	15.22
More than 3	4	5.72	8	11.76	12	8.70
Total	**70**	**100.00**	**68**	**100.00**	**138**	**100.00**

Results in Table 4.20 show that majority 49(70%) of the head-teachers indicated that their schools had only one PE teacher, 10(14%) indicated that their schools had two PE teachers and 7(10%) indicated that their schools had three PE teachers. It was also found that majority of the PE teachers 25(37%) indicated that their schools had only one PE teacher, 21(31%) indicated that their schools had two PE teachers and 14(21%) indicated that their schools had three PE teachers. Overall majority of the respondents 74(54%) indicated that their schools had only one PE teacher, 31(22%) indicated that

their schools had two PE teachers and 21(15%) indicated that their schools had three PE teachers.

The training of PE teachers available in the public secondary schools in Kisii County is presented in the next subsection.

4.6.2 Training of PE Teachers

The PE teachers were asked to indicate whether they were trained to teach Physical Education. These results are presented in Table 4.21.

Table 4.21: Training of PE Teachers

Response	Frequency	Percentage
Trained to teach PE	28	41.18
Not trained to teach PE	40	58.82
Total	**68**	**100.00**

Table 4.21 show that 40(59%) of the respondents indicated that they had been trained to teach Physical Education while 28(41%) of the respondents indicated that they had been trained to teach the subject. The following subsection presents the results on the extent of adequacy of trained PE teachers available in public secondary schools in Kisii County.

4.6.3 Adequacy of Trained PE Teachers

The head-teachers and PE teachers were asked to indicate whether the number of trained P.E. teachers was adequate and the results are presented in Table 4.22.

Table 4.22: The Number of Trained PE Teachers in my School is Adequate

Head-teachers and PE Teachers Responses	5	4	3	2	1
National Secondary Schools	-	-	-	2 (50%)	2 (50%)
Extra-County Secondary Schools	-	-	-	2 (33%)	4 (67%)
County Secondary Schools	-	-	-	4 (40%)	6 (60%)
Sub-County Secondary Schools	-	-	-	50 (42%)	68 (58%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The results in Table 4.22 show that 50%, 33%, 40% and 42% of the Head-teachers and PE teachers disagreed that the number of trained PE teachers was adequate in national, extra-county, county and sub-county secondary schools in Kisii County respectively. The results also show that 50%, 67%, 60% and 68% % of the Head-teachers and PE teachers strongly disagreed that the number of trained PE teachers was adequate in national, extra-county, county and sub-county secondary schools in Kisii County respectively.

The next sub-section presents findings on testing of the hypothesis that the extent of adequacy of Trained PE Teachers did not significantly differ based on the type of school.

4.6.4 Hypothesis Testing on Extent of Adequacy of Trained PE Teachers in Public Secondary Schools in Kisii County

To determine whether the differences in the adequacy of trained PE Teachers in the four types of schools were significant, one-way ANOVA was done as shown in Table 4.23.

Table 4.23: ANOVA Summary Table on Adequacy of Trained PE Teachers

			ANOVA Summary					
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	1.50	Between Groups	0.0769	3	0.0256	0.0417	0.9886
Extra-County	6	1.33						
County	10	1.40						
Sub-County	118	1.42	Within Groups	82.4606	134	0.6154		
Total	**138**	**1.41**	**Total**	**82.5375**	**137**			

Results in Table 4.23 show that there are no significant differences in the adequacy of trained PE Teachers in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F (3, 134) = 0.0417$, $p = 0.9886$]. Therefore, the hypothesis that the extent of adequacy of Trained PE Teachers did not significantly differ based on the type of school was accepted.

The next section presents findings on head-teachers and PE teachers' ratings on the extent of adequacy of textbooks and related reference materials available in the different types of public secondary schools in Kisii County.

4.7 Adequacy of Textbooks and Related Reference Materials

4.7.1 Availability of Textbooks and Related Reference Materials

The study sought to find out the availability of Physical Education textbooks and related reference materials in the sampled schools. The findings emanating from the observation checklist are as presented in Table 4.24.

Table 4.24: PE Textbooks and Related Reference Material Available in Public Secondary Schools Kisii County

Textbook/Reference Material	No. in All the Schools	Average No. Per School (N=70)
Secondary School PE Syllabus	70	1
J.K.F. PE Textbooks for Form 1-4	230	3
K.I.E. PE Textbooks for Form 1-4	219	3
Know the Games Series in all games	96	1
Rule Books for all games	80	1
Other books in any game	78	1

Table 4.24 shows that there was averagely 3 J.K.F. and K.I.E. PE Textbooks for Form 1-4 and 1 Secondary School PE Syllabus per school. The averages were calculated from dividing the total number of items by the numbers of schools which were 70.

The next sub-sections present head-teachers and PE teachers' ratings on the extent of adequacy of the various PE textbooks and related reference materials available in the different types of public secondary schools in Kisii County.

4.7.2 Adequacy of PE Textbooks and Related Reference Materials

The head-teachers and PE teachers were asked to indicate whether their schools had purchased adequate textbooks/reference materials for teaching PE and the results are presented in Table 4.25.

Table 4.25: My School has Purchased Adequate Textbooks/Reference Materials for Teaching PE

Head-teachers and PE Teachers Responses	5	4	3	2	1
National Secondary Schools	-	1 (25%)	1 (25%)	2 (50%)	-
Extra-County Secondary Schools	-	1 (17%)	-	3 (66%)	1 (17%)
County Secondary Schools	-	-	1 (10%)	7 (70%)	2 (20%)
Sub-County Secondary Schools	-	-	-	88 (76%)	30 (24%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Results in Table 4.25 show that 25% and 17% of head-teachers and PE teachers agreed that their schools had purchased adequate textbooks/reference materials for teaching PE in national and extra-county secondary schools in Kisii County respectively. The results also show that 17%, 20% and 24% of head-teachers and PE teachers strongly disagreed that their schools had purchased adequate textbooks/reference materials for teaching PE in extra-county, county and sub-county secondary schools in Kisii County respectively.

The next sub-section presents findings on testing of the hypothesis that the extent of adequacy of PE Textbooks and Related Reference Materials did not significantly differ based on the type of school.

4.7.3 Hypothesis Testing on Extent of Adequacy of PE Textbooks and Related Reference Materials in Public Secondary Schools in Kisii County

To determine whether the differences in the adequacy of PE Textbooks and Related Reference Materials in the four types of schools was significant, one-way ANOVA was done as shown in Table 4.26.

Table 4.26: ANOVA Summary Table on Adequacy of PE Textbooks and Related Reference Material

			ANOVA Summary					
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	2.75	Between Groups	4.0043	3	1.3348	4.5991	0.0043
Extra-County	6	1.83						
County	10	1.90						
Sub-County	118	1.75	Within Groups	38.8900	134	0.2902		
Total	**138**	**2.06**	**Total**	**42.8943**	**137**			

Results in Table 4.26 show that there are significant differences in the adequacy of PE Textbooks and Related Reference Material in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F(3, 134) = 4.5991$, $p = 0.0043$]. To determine the strength of the resulting significant difference, a post-hoc test of Tukey HSD was computed. Post hoc test of Tukey HSD showed that the extent of adequacy of PE Textbooks and Related Reference Material for National Secondary Schools ($M = 2.75$) differed significantly from Sub-County Secondary Schools ($M = 1.75$). Secondly the extent of adequacy of indoor and outdoor PE teaching facilities for National Secondary Schools ($M = 2.75$), significantly differed from Extra-County Secondary Schools ($M = 1.83$) and County Secondary Schools ($M = 1.90$. However, the extent of adequacy of PE Textbooks and Related Reference Material did not differ significantly between Extra-County and County Secondary Schools and between Extra-County and Sub-County Secondary Schools. Therefore, the hypothesis that the extent of adequacy of PE Textbooks and Related Reference Material did not significantly differ based on the type of school was rejected.

The next section presents findings on head-teachers and PE teachers' ratings on the extent of adequacy of time allocated for PE in the different types of public secondary schools in Kisii County.

4.8 Adequacy of Time Allocated for Teaching PE

4.8.1 Number of Lessons Allocated for Teaching PE

The Head-teachers and PE teachers were asked to indicate the number of lessons allocated on the school timetable per week for P.E for Form One, Two, Three and Four. The study found that all the respondents 138(100%), indicated that P.E was allocated one lesson per week of 40 minutes in all the classes. The researcher, using an observation checklist also found out that Form One, Two, Three and Four in all the schools had been allocated one lesson per week that lasted 40 minutes.

4.8.3 Adequacy of Time Allocated for Teaching PE

The head-teachers and PE teachers were asked to indicate whether they considered the time allocated for P.E. of one lesson of 40minutes per week was adequate. The results are presented in Table 4.27.

Table 4.27: The Time Allocated for Teaching PE in my School is Adequate

Head-teachers and PE Teachers Responses	5	4	3	2	1
National Secondary Schools	-	1 (25%)	-	2 (50%)	1 (25%)
Extra-County Secondary Schools	-	1 (17%)	-	4 (66%)	1 (17%)
County Secondary Schools	1 (10%)	1 (10%)	-	6 (60%)	2 (20%)
Sub-County Secondary Schools	10 (9%)	20 (17%)	8 (7%)	50 (42%)	30 (25%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The results in Table 4.27 show that 25% and 17% of head-teachers and PE teachers agreed that the time allocated for teaching PE was adequate in national, extra-county and county secondary schools in Kisii County respectively. The results also show that 66% and 60% of head-teachers and PE teachers disagreed that the time allocated for teaching PE was adequate in extra-county and county secondary schools in Kisii County respectively.

The next sub-section presents findings on testing of the hypothesis that the extent of adequacy of time allocated for teaching PE did not significantly differ based on the type of school.

4.8.4 Hypothesis Testing on Extent of Adequacy of Time Allocated for Teaching PE in Public Secondary Schools in Kisii County

To determine whether the differences in the adequacy of Time Allocated for Teaching PE in the four types of schools was significant, one-way ANOVA was done as shown in Table 4.28.

Table 4.28: ANOVA Summary Table on Adequacy of Time Allocated for Teaching PE

				ANOVA Summary				
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	2.25	Between Groups	0.5223	3	0.1741	0.3846	0.7643
Extra-County	6	2.16						
County	10	2.30						
Sub-County	118	2.41	Within Groups	60.6633	134	0.4527		
Total	**138**	**2.28**	**Total**	**61.1856**	**137**			

Results in Table 4.28 show that there are no significant differences in the adequacy of time allocated for teaching PE in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F(3, 134) = 0.3846$, $p = 0.7643$]. Therefore, the hypothesis that the extent of adequacy of Time Allocated for Teaching PE did not significantly differ based on the type of school was accepted.

The next section presents findings on head-teachers and PE teachers' ratings on the extent of maintenance of PE teaching facilities in the different types of public secondary schools in Kisii County.

4.9 Extent of Maintenance of PE Teaching Facilities

The head-teachers and PE teachers were asked to indicate the extent of maintenance of PE teaching facilities in their schools. The results are presented in Tables 4.29, 4.30, 4.31 and 4.32.

The national secondary school head-teachers and PE teachers' ratings on the extent of maintenance of PE teaching facilities in their schools are presented in Table 4.29.

Table 4.29: National Schools Head-Teachers and PE Teachers Responses on Maintenance of PE Teaching Facilities

Statement	5	4	3	2	1
The facilities available in my school for teaching PE are in good working condition.	1 (25%)	1 (25%)	-	2 (50%)	-
The facilities available in my school for teaching PE are outdated.	-	2 (50%)	-	2 (50%)	-
My school frequently repairs and replaces spoilt and defective facilities available for teaching PE.	1 (25%)	1 (25%)	-	2 (50%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Results in Table 4.29 show that 25% of the national secondary schools head-teachers and PE teachers strongly agreed that the facilities available in their schools for teaching

PE were in good working condition and that their schools frequently repair and replace spoilt and defective facilities. The results also show that 50% of the national secondary schools head-teachers and PE teachers disagreed that the facilities available in their schools for teaching PE were in good working condition, that the facilities available in their schools for teaching PE were outdated and that their schools frequently repair and replace spoilt and defective facilities. The mean score of the National Secondary Schools head-teachers and PE teachers' ratings on the extent of maintenance of the various PE teaching facilities available in their schools was 3.17 (Table 4.33) indicating that they neither agreed nor disagreed that the various PE teaching facilities available in their schools were well maintained.

Table 4.30 indicates extra-county secondary schools head-teachers and PE teachers' ratings on the extent of maintenance of PE teaching facilities in their schools.

Table 4.30: Extra-County Schools Head-Teachers and PE Teachers Responses on Maintenance of PE Teaching Facilities

Statement	5	4	3	2	1
The facilities available in my school for teaching PE are in good working condition.	-	1 (17%)	-	4 (66%)	1 (17%)
The facilities available in my school for teaching PE are outdated.	-	4 (66%)	-	2 (34%)	-
My school frequently repairs and replaces spoilt and defective facilities available for teaching PE.	-	1 (17%)	-	4 (66%)	1 (17%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Results in Table 4.30 show that 66% of the extra-county secondary schools head-teachers and PE teachers agreed that the facilities available in their schools for teaching PE were outdated. The results also show that 66% of the extra-county secondary schools head-teachers and PE teachers disagreed that their schools frequently repair and

replace spoilt and defective facilities. The mean score of the Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of maintenance of the various PE teaching facilities available in their schools was 2.56 (Table 4.33) indicating that they disagreed that the various PE teaching facilities available in their schools were well maintained.

Table 4.31 indicates county secondary schools head-teachers and PE teachers' ratings on the extent of maintenance of PE teaching facilities in their schools.

Table 4.31: County Schools Head-Teachers and PE Teachers Responses on Maintenance of PE Teaching Facilities

Statement	5	4	3	2	1
The facilities available in my school for teaching PE are in good working condition.	-	1 (10%)	-	7 (70%)	2 (20%)
The facilities available in my school for teaching PE are outdated.	2 (20%)	4 (40%)	-	4 (40%)	-
My school frequently repairs and replaces spoilt and defective facilities available for teaching PE.	-	2 (20%)	-	6 (60%)	2 (20%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Results in Table 4.31 show that 40% of the county secondary schools head-teachers and PE teachers agreed that the facilities available in their schools for teaching PE were outdated. The results also show that 60% of the county secondary schools head-teachers and PE teachers disagreed that their schools frequently repair and replace spoilt and defective facilities. The mean score of the County Secondary Schools head-teachers and PE teachers' ratings on the extent of maintenance of the various PE teaching facilities available in their schools was 2.53 (Table 4.33) indicating that they disagreed that the various PE teaching facilities available in their schools were well maintained.

Table 4.32 indicates sub-county secondary schools head-teachers and PE teachers' ratings on the extent of maintenance of PE teaching facilities in their schools.

Table 4.32: Sub-County Schools Head-Teachers and PE Teachers Responses on Maintenance of PE Teaching Facilities

Statement	5	4	3	2	1
The facilities available in my school for teaching PE are in good working condition.	-	10 (9%)	-	90 (76%)	18 (15%)
The facilities available in my school for teaching PE are outdated.	10 (9%)	60 (51%)	-	40 (33%)	8 (7%)
My school frequently repairs and replaces spoilt and defective facilities available for teaching PE.	-	10 (9%)	-	90 (76%)	18 (15%)

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Results in Table 4.32 show that 51% of the sub-county secondary schools head-teachers and PE teachers agreed that the facilities available in their schools for teaching PE were outdated. The results also show that 76% of the county secondary schools head-teachers and PE teachers disagreed that their schools frequently repair and replace spoilt and defective facilities. The mean score of the Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of maintenance of the various PE teaching facilities available in their schools was 2.41 (Table 4.33) indicating that they disagreed that the various PE teaching facilities available in their schools were well maintained.

The next sub-section presents findings on testing of the hypothesis that the extent of maintenance of PE Teaching Facilities did not significantly differ based on the type of school.

4.9.1 Hypothesis Testing on Extent of Maintenance of PE Teaching Facilities in Public Secondary Schools in Kisii County

To determine whether the differences in the maintenance of PE teaching facilities in the four types of schools was significant, one-way ANOVA was done as shown in Table 4.33.

Table 4.33: ANOVA Summary Table on Maintenance of PE Teaching Facilities

			ANOVA Summary					
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	3.17	Between Groups	2.3980	3	0.7993	3.5012	0.0173
Extra-County	6	2.56						
County	10	2.53						
Sub-County	118	2.41	Within Groups	30.5920	134	0.2283		
Total	**138**	**2.67**	**Total**	**32.9899**	**137**			

Results in Table 4.33 show that there are significant differences in the maintenance of PE teaching facilities in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F (3, 134) = 3.5012$, $p = 0.0173$]. To determine the strength of the resulting significant difference, a post-hoc test of Tukey HSD was computed. Post hoc test of Tukey HSD showed that the maintenance of PE teaching facilities for National Secondary Schools ($M = 3.17$) differed significantly from Sub-County Secondary Schools ($M = 2.41$). However, the maintenance of PE teaching facilities did not differ significantly between National and Extra-County and County Secondary Schools and between Extra-County, County and Sub-County Secondary Schools. Therefore, the hypothesis that the extent of maintenance of PE teaching facilities did not significantly differ in relation to the type of school was rejected.

The next section presents findings on head-teachers and PE teachers' ratings on the extent of implementation of the PE Curriculum in the different types of public secondary schools in Kisii County.

4.10 Extent of Implementation of PE Curriculum

4.10.1 Availability of PE Schemes of Work, Lesson Plans, Lesson Notes and Progress Charts

The researcher, using an observation checklist found out that in all the 70(100%) schools used in the study, there were no schemes of work, lesson plans, lesson notes and progress charts for PE which are important documents when evaluating the implementation of a curriculum.

The next sub-sections present head-teachers and PE teachers' ratings on the extent of implementation of the PE Curriculum in the different types of public secondary schools in Kisii County.

4.10.1 Extent of Implementation of PE Curriculum in Public Secondary Schools in Kisii County

The findings on National Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE Curriculum in their schools are presented in Table 4.34.

Table 4.34: National Schools Head-Teachers and PE Teachers Responses on Implementation of PE Curriculum

Statement	5	4	3	2	1
PE teachers in my school teach PE using the official PE Syllabus by the ministry of education.	-	-	-	3 (75%)	1 (25%)
PE teachers in my school prepare schemes of work, lesson plans and notes for teaching PE.	-	-	1 (25%)	3 (75%)	-
PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes.	-	-	1 (25%)	2 (50%)	1 (25%)
PE teachers in my school use PE progress charts and monitor the students' progress in PE.	-	-	-	3 (75%)	1 (25%)
PE performance in my school is shown on students' report cards.	-	-	-	3 (75%)	1 (25%)
PE teachers in my school organize play activities properly and frequently and always teach or supervise these activities.	-	2 (50%)	1 (25%)	1 (25%)	-
My school finds alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.	-	-	1 (25%)	2 (50%)	1 (25%)
My school has a PE and sports dress policy.	1 (25%)	3 (75%)	-	-	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.34 show that 75% of the head-teachers and PE teachers in national secondary schools agreed that their schools had a PE and sports dress policy while 50% agreed that PE teachers in their schools organize play activities properly and frequently and always teach or supervise these activities. The findings also show that 75% of the head-teachers and PE teachers in national secondary schools disagreed that PE teachers in their schools teach PE using the official PE Syllabus by the ministry of education, that PE teachers in their schools prepare schemes of work, lesson plans and notes for teaching PE, that PE teachers in their schools use PE progress charts and monitor the students' progress in PE and that PE performance in their schools is shown on students report cards. The mean score of the National Secondary Schools head-

teachers and PE teachers' ratings on the extent of implementation of the PE curriculum in their schools was 2.38 (Table 4.38) indicating that they disagreed that the PE Curriculum was fully implemented in their schools.

Table 4.35 presents findings on Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE Curriculum in their schools.

Table 4.35: Extra-County Schools Head-Teachers and PE Teachers Responses on Implementation of PE Curriculum

Statement	5	4	3	2	1
PE teachers in my school teach PE using the official PE Syllabus by the ministry of education.	-	-	-	4 (67%)	2 (33%)
PE teachers in my school prepare schemes of work, lesson plans and notes for teaching PE.	-	-	1 (17%)	4 (67%)	1 (17%)
PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes.	-	-	1 (17%)	4 (67%)	1 (17%)
PE teachers in my school use PE progress charts and monitor the students' progress in PE.	-	-	-	4 (67%)	2 (33%)
PE performance in my school is shown on students' report cards.	-	-	-	4 (67%)	2 (33%)
PE teachers in my school organize play activities properly and frequently and always teach or supervise these activities.	-	2 (33%)	2 (33%)	2 (33%)	--
My school finds alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.	-	-	1 (17%)	3 (50%)	2 (33%)
My school has a PE and sports dress policy.	2 (33%)	3 (50%)	-	1 (17%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.35 show that 50% of the head-teachers and PE teachers in extra-county secondary schools agreed that their schools had a PE and sports dress policy while 33% agreed that PE teachers in their schools organize play activities properly and frequently and always teach or supervise these activities. The findings also show that

67% of the head-teachers and PE teachers in extra-county secondary schools disagreed that PE teachers in their schools teach PE using the official PE Syllabus by the ministry of education, that PE teachers in their schools prepare schemes of work, lesson plans and notes for teaching PE, that PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes, that PE teachers in their schools use PE progress charts and monitor the students' progress in PE and that PE performance in their schools is shown on students report cards. The mean score of the Extra-County Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE curriculum in their schools was 2.30 (Table 4.38) indicating that they disagreed that the PE Curriculum was fully implemented in their schools.

Table 4.36 presents findings on County Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE Curriculum in their schools.

Table 4.36: County Schools Head-Teachers and PE Teachers Responses on Implementation of PE Curriculum

Statement	5	4	3	2	1
PE teachers in my school teach PE using the official PE Syllabus by the ministry of education.	-	-	1 (10%)	8 (80%)	1 (10%)
PE teachers in my school prepare schemes of work, lesson plans and notes for teaching PE.	-	-	1 (10%)	8 (80%)	1 (10%)
PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes.	-	-	1 (10%)	8 (80%)	1 (10%)
PE teachers in my school use PE progress charts and monitor the students' progress in PE.	-	-	1 (10%)	8 (80%)	1 (10%)
PE performance in my school is shown on students' report cards.	-	-	1 (10%)	8 (80%)	1 (10%)
PE teachers in my school organize play activities properly and frequently and always teach or supervise these activities.	2 (20%)	2 (20%)	-	6 (60%)	-
My school finds alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.	-	-	2 (20%)	7 (70%)	1 (10%)
My school has a PE and sports dress policy.	2 (20%)	5 (50%)	-	3 (30%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.36 show that 50% of the head-teachers and PE teachers in county secondary schools agreed that their schools had a PE and sports dress policy while 20% agreed that PE teachers in their schools organize play activities properly and frequently and always teach or supervise these activities. The findings also show that 80% of the head-teachers and PE teachers in county secondary schools disagreed that PE teachers in their schools teach PE using the official PE Syllabus by the ministry of education, that PE teachers in their schools prepare schemes of work, lesson plans and notes for teaching PE, that PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes, that PE teachers in their schools use PE progress charts and monitor the students' progress in PE and that PE performance

in their schools is shown on students report cards. The mean score of the County Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE curriculum in their schools was 2.25 (Table 4.38) indicating that they disagreed that the PE Curriculum was fully implemented in their schools.

Table 4.37 presents findings on Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE Curriculum in their schools.

Table 4.37: Sub-County Schools Head-Teachers and PE Teachers Responses on Implementation of PE Curriculum

Statement	5	4	3	2	1
PE teachers in my school teach PE using the official PE Syllabus by the ministry of education.	-	-	-	88 (75%)	30 (25%)
PE teachers in my school prepare schemes of work, lesson plans and notes for teaching PE.	-	-	20 (17%)	88 (75%)	10 (8%)
PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes.	-	-	20 (17%)	88 (75%)	10 (8%)
PE teachers in my school use PE progress charts and monitor the students' progress in PE.	-	-	-	88 (75%)	30 (25%)
PE performance in my school is shown on students' report cards.	-	-	-	88 (75%)	30 (25%)
PE teachers in my school organize play activities properly and frequently and always teach or supervise these activities.	20 (17%)	30 (25%)	-	50 (43%)	18 (15%)
My school finds alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.	-	-	20 (17%)	88 (75%)	10 (8%)
My school has a PE and sports dress policy.	20 (17%)	88 (75%)	-	10 (8%)	-

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

The findings in Table 4.37 show that 75% of the head-teachers and PE teachers in sub-county secondary schools agreed that their schools had a PE and sports dress policy while 25% agreed that PE teachers in their schools organize play activities properly and

frequently and always teach or supervise these activities. The findings also show that 75% of the head-teachers and PE teachers in sub-county secondary schools disagreed that PE teachers in their schools teach PE using the official PE Syllabus by the ministry of education, that PE teachers in their schools prepare schemes of work, lesson plans and notes for teaching PE, that PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes, that PE teachers in their schools use PE progress charts and monitor the students' progress in PE, that PE performance in their schools is shown on students report cards and that their schools find alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.. The mean score of the Sub-County Secondary Schools head-teachers and PE teachers' ratings on the extent of implementation of the PE curriculum in their schools was 2.20 (Table 4.38) indicating that they disagreed that the PE Curriculum was fully implemented in their schools.

The next sub-section presents findings on testing of the hypothesis that the extent of implementation of the PE Curriculum did not significantly differ based on the type of school.

4.10.3 Hypothesis Testing on Extent of Implementation of the PE Curriculum in Public Secondary Schools in Kisii County

To determine whether the differences in the implementation of the PE Curriculum in the four types of schools was significant, one-way ANOVA was done as shown in Table 4.38.

Table 4.38: ANOVA Summary Table on Implementation of PE Curriculum

			ANOVA Summary					
School Type	**N**	**Mean**	**Source**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
National	4	2.38	Between Groups	0.1906	3	0.0635	0.1622	0.9216
Extra-County	6	2.30						
County	10	2.25						
Sub-County	118	2.20	Within Groups	52.4749	134	0.3916		
Total	**138**		**Total**	**52.6655**	**137**			

Results in Table 4.38 show that there are no significant differences in the implementation of the PE curriculum in the 4 types of public secondary schools in Kisii County at $p<.05$ level [$F(3, 134) = 0.1622$, $p = 0.9216$]. Therefore, the hypothesis that the implementation of the PE Curriculum did not significantly differ in relation to the type of school was accepted.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 Introduction

This chapter presents the discussion of findings of the study. The findings are discussed as per the study objectives.

5.2 Discussion of Findings

This section presents the discussion of the findings of the study according to the objectives.

5.2.1 Adequacy of Indoor and Outdoor PE Teaching Facilities

Sports facilities and equipment are “laboratories” for Physical Education (PE) where games are preformed or played and consequently facilities and equipment are important for achievement of goals for PE and sports (Rintaugu, 2011). As such without the indoor and outdoor sports facilities PE curriculum cannot be implemented in schools. Findings on adequacy of indoor and outdoor sports facilities are tabulated in table 4.8. the findings show that at least all the schools in the study had one football pitch, 79% of the schools had an athletics track, 71% had volleyball and netball courts while 57% and 52% of the schools had handball and basketball courts respectively. The availability of the football, volleyball, handball and netball fields in most schools was not surprising since they are relatively cheap to put up. The athletics track was readily available as it is easily marked around the football pitch.

The trend changed for courts like basketball which was only available in 50% of the schools (Table 4.8) since it involves substantial costs to put up and maintain. In most schools also, availability of resources depended on availability of teachers with the know how to teach or coach the various sports in the curriculum and this explains why

over 40% of the schools lacked handball courts since handball and basketball which was also available in less than 50% of the schools and rugby which was present in less than 20% of the schools require more technical knowhow than football and athletics which were available in almost all the schools.

From Table 4.8, there was no single public secondary school in Kisii county with a swimming pool and well over 70% of the schools lacked tennis courts despite the fact that they can be easily marked within the basketball courts, parking areas and in the other fields like football pitch as grass courts. Further inquiry of why most schools lacked swimming pools and tennis courts reviled that apart from lack of finances to build them, most schools didn't have trained PE teachers to handle them and so did not bother to provide the facilities. Hockey and rugby facilities were not available in over 58% of the schools. Most schools which indicated they had rugby fields converted the football pitch into a rugby pitch and as such over 90% of the schools in essence did not have rugby pitches. Netball courts were recorded virtually in all girl schools but many of them had only one pitch which was not adequate.

Concerning adequacy of outdoor facilities available for implementing the PE secondary school curriculum in Kisii County (Tables 4.9, 4.10, 4.11 and 4.12) over 75% of the respondents indicated that the available facilities were not enough to implement the PE curriculum. Some felt that games like cricket and swimming be removed from the syllabus as there were no facilities for them in all the schools nor trained PE teachers to handle them. Despite almost all principals (Table 4.6) indicating they had at least one trained PE teacher, majority were diploma trained who had to study PE as a third

compulsory subject but were not taught swimming and cricket as most diploma colleges lacked swimming pools and cricket pitches (Muniu, 1986; Kiganjo, 1987).The findings also conquer with the previous studies Njororai (1990), Rintaugu (1998), Sakwa (2005), Ongonga etal (2010), Rintaugu (2011), among others of lack of adequate outdoor facilities in public secondary schools in Kenya for implementation of the PE curriculum.

The situation was even worse on availability of indoor facilities for squash, table tennis, badminton, gymnasia for gymnastics, indoor basketball and volleyball. In Table 4.8, only 29% of the schools had multipurpose halls for indoor games and no school had a squash room. Only 14% of the schools indicated they had gymnasia but on visiting the said gymnasia they were more of multipurpose halls as they lacked the necessary gym equipment and qualified staff to run them as gymnasia. All the head teachers and PE teachers (Table 4.9-4.12) indicated that their schools lacked adequate indoor facilities to aid in PE curriculum implementation. These findings correspond with previous studies Nteere (1982), Muniu (1986), Kiganjo (1987), Njororai (1990), Rintaugu (1998), Sakwa (2005), Rintaugu (2011) that most secondary schools in Kenya lack adequate indoor facilities for teaching of PE.

5.2.2 Adequacy of PE Equipment and Supplies

The study also sought to establish the adequacy of PE equipment and supplies for implementation of the PE curriculum in public secondary schools in Kisii County. The results of the observation checklists on adequacy of PE equipment and apparatus are on Table 4.5.

From the results on Table 4.5, the average number of equipment recorded in most schools was dismal. Averagely most schools had 6 football balls, 3 netball balls, 3 handball balls, 3 volleyball balls and 3 basketball balls. These numbers were too small compared to the number of students in these schools with 70% of them having more than 300 students (Table 4.7). All the schools surveyed lack equipment required to teach technical skills in athletics like high jump shot put and pole-vault and many other sports. This was in agreement with views expressed by the then patron of Kenya Secondary Schools Sports Association (KSSSA) Enos Oyaya in 2008 who cited lack of appropriate equipment as major hindrance to talent development in secondary schools (https://www.capitalfim.co.ke>2008/08). Mr Oyaya then gave an example in high jump where participants only get to use standard equipment during national games. As of 2008 he cited Moi University as the only public institution with high jump equipment in Kenya (https://www.capitalfim.co.ke>2008/08). From Tables (4.15-4.18) 70% the head teachers and PE teachers indicated that their schools had inadequate equipment and supplies required for implementation of the PE curriculum. Most principals were ignorant on provision of equipment for teaching of PE with many thinking that only a few balls were required for students to play during PE. Many of the principals equated PE with traditional ball games of netball, football, volleyball and athletics (Rintaugu & Nteere 2011). The lack of equipment and supplies was dire in sub-county secondary schools where consistently 92% of head teachers and PE teachers felt very strongly that their schools lacked adequate equipment and supplies to implement the PE curriculum. For sub-county schools 90% only offered traditional ball games of soccer, netball and athletics. They completely lacked equipment for sports like hockey, rugby, table tennis, tennis, swimming, cricket, field events equipment like discuss, shot put, javelin and high jump gear (Table 4.15-4.18)

5.2.3 Adequacy of Trained PE Teachers

The UNESCO charter for PE and sports, article 4 advocates for personnel professionally responsible for PE and sports to be appropriately qualified with adequate levels of specialization. Davies and Wechster (2004) aver that qualified PE personnel are more likely to use recommended teaching procedures and achieve program outcomes than non-qualified personnel. Since PE involves transmission and learning of skills, use of professionally trained teachers in PE is imperative in order among other factors to minimize injuries and ensure teaching of the correct techniques in various sports events.

Hardman (2009) in his study in the state and status of PE worldwide noted that Africa had only 9% trained PE specialists implying that PE taught in most African countries was taught by untrained PE teachers. Results of the study revealed that only 41% of the PE teachers indicated they had been trained on the subject. The findings of this study are in line with the findings of a study by Hardman (2009) that many countries in Africa have very few trained PE teachers in secondary schools. From the findings in Table 4.4, 21% of the PE teachers indicated they had diploma qualifications, 71% had a bachelors degree while 8% had a masters degree in education. From these findings it is clear that majority of the trained PE teachers in public secondary schools in Kisii county were diploma trained since its only diploma teachers who had to do PE as a compulsory subject during training. The 71% bachelor of Education teachers form the bulk of the 59% of teachers teaching PE in public secondary schools in Kisii county despite not being trained as PE teachers.

The demise of diploma teachers training colleges except Kagumo in Nyeri, spells a death knell for PE in public secondary schools since many bachelor of Education teacher trainees cannot take PE and two other examinable subjects at university which is a requirement of TSC. The few bachelor of Education graduates who had taken PE and one other teaching subject were no longer active in teaching PE as they concentrated on the examinable subject which guaranteed them promotion if their students received good grades in KCSE examinations unlike PE which is non examinable. Despite more universities commencing training in sports related courses only Kenyatta and university of Nairobi are training PE teachers and even if all universities offered to train PE teachers demand for PE teachers in public secondary schools is not there as most principals are interested in getting teachers for the examinable subjects and PE which they despise for being non examinable.

5.2.4 Adequacy of PE Textbooks and Related Reference Material

In terms of availability of PE textbooks and related reference material, the study found out that that there was on average 3 J.K.F. and K.I.E. PE Textbooks for Form 1-4 and 1 Secondary School PE Syllabus per school. In terms of Secondary Schools head-teachers and PE teachers' ratings on whether their schools had purchased adequate textbooks/reference materials for teaching PE, the study further found mean scores of 2.75, 1.83, 1.90 and 1.75 for the National, Extra-County, County and Sub-County public secondary schools respectively indicating that most of the head-teachers and PE teachers disagreed that their schools had purchased adequate textbooks/reference materials for teaching PE. The findings of this study are supported by Wanyama (2011) who found that the state of affairs regarding literature in the subject of Physical Education is very serious. This was explained by the fact that besides the existence of excellent books and papers on education, in general very little is done on Physical

Education. This is likely to make teaching of the subject much more difficult. Due to lack of such teaching and learning materials, many teachers are tempted to shift to teaching other subjects at the expense of Physical Education.

5.2.5 Adequacy of Time Allocated for Teaching PE

The study found that all the respondents 138 (100%), indicated that P.E was allocated one lesson per week of 40 minutes in all the classes. The results also show that 25% and 17% of head-teachers and PE teachers agreed that the time allocated for teaching

PE was adequate in national, extra-county and county secondary schools in Kisii County respectively. The results further showed that 66% head teachers and 60% of PE teachers disagreed that the time allocated for teaching PE was adequate in the public secondary schools in Kisii County. On the aspect of length of Physical Education, the traditional scheduling of Physical Education lesson does not cater for such important activities like changing into games kits which takes 10 minutes of each period and another 10 to 15 minutes for bathing and changing to school uniform at the conclusion of the activity. The findings are also in agreement with those of Wanyama (2011) who found that regarding timetabling, other subjects are positioned on the timetable with the highest priority, with PE often being placed on the timetable as the last lesson of the day, at a time when both students and teachers are tired. The allocation of time for P.E as the last lesson to break, lunch and games was rampant and good in most schools as scheduling of PE time within the lessons may interfere with other lessons. The changing from normal uniform to games kits consumed a lot of time and was singled out by teachers as being main cause of negative attitude to PE by teachers.

5.2.6 Maintenance of PE Teaching Facilities

On secondary school's head-teachers and PE teachers' ratings on the extent of extent of maintenance of PE teaching facilities available in their schools, the study found mean scores of 3.17, 2.56, 2.53 and 2.41 for the National, Extra-County, County and Sub-County public secondary schools respectively indicating that most of the head teachers and PE teachers disagreed that the various PE teaching facilities available in their schools were well maintained. Most PE teachers lamented that facilities like pitches for soccer, netball and volleyball were not well maintained due to the fact that most schools reared cows for milk and the fields acted as grazing grounds. In most schools also the fields and other playing equipment were maintained as long as school teams were progressing in inter secondary competitions and once they were knocked out, the facilities and equipment were neglected until another season for competition. Many head teachers also cited lack of funds as main reason of not maintaining sports facilities and equipment as priority was given to passing of exams.

5.2.7 Implementation of the PE Curriculum

Finally the researcher using an observation checklist found out that in all the 70(100%) schools used in the study, there were no schemes of work, lesson plans, lesson notes and progress charts for PE which are important documents when evaluating the implementation of a curriculum. On secondary schools head-teachers and PE teachers' ratings on the extent of implementation of the PE curriculum in their schools, the study found mean scores of 2.38, 2.30, 2.25 and 2.20 for the National, Extra-County, County and Sub-County public secondary schools respectively indicating that most of the head-teachers and PE teachers disagreed that the PE Curriculum was fully implemented in their schools. The main reason why the PE curriculum was not being implemented in the schools at all was because inspectors from the ministry of education and science

never bothered to check if PE teachers were teaching the subject whenever they visited the schools. Any time they visited the schools their concentration was on examinable subjects only.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The purpose of this study was to assess the teaching resources available for the implementation of the PE curriculum in public secondary schools in Kisii County. The study was guided by the following specific objectives:

i. To establish the extent of adequacy of outdoor and indoor teaching facilities for the implementation of the PE curriculum in relation to the type of public secondary school in Kisii County.

ii. To find out the extent of adequacy of PE equipment and apparatus for the implementation of the PE curriculum in relation to the type of public secondary school in Kisii County.

iii. To determine the extent of maintenance of teaching facilities for the effective implementation of the PE curriculum in relation to the type of public secondary school in Kisii County.

iv. To establish the extent of implementation of the PE curriculum in relation to the type of public secondary school in Kisii County.

This chapter presents the summary of findings, conclusions and recommendations drawn from the findings of the study.

6.2 Summary

From the study it is clear that all public secondary schools in Kisii County recognize PE as one of the subjects in the Kenya Secondary School Curriculum since it was timetabled in all the secondary schools. The study also clearly indicates that all the

schools had outdoor facilities for traditional ball games like netball, football and volleyball but they were not adequate to carter for all students especially during PE lessons. 57% of the schools did not have hockey fields 70% did not have rugby fields, none had cricket facilities, slightly half of them had basketball courts and 15% had tennis courts (Table 4.8) for indoor facilities like gymnasium, multipurpose halls for indoor games and squash rooms 80% of the schools did not have them. No school had a swimming pool including national secondary schools meaning that the PE curriculum cannot be fully implemented in public secondary schools in Kisii County when schools lack facilities for almost half of the curriculum.

On equipment like high jump gear, racquets, balls, hockey sticks among others 90% of the schools had a serious shortage and as such many lacked the capacity to fully implement the PE curriculum (Table 4.14). On average all schools in the study had only three balls for soccer, volleyball, netball and basketball and with many having over 500 students (Table 4.24 and 4.7) the equipment wasn't adequate for implementation of the PE curriculum.

On the issue of PE teachers the study revealed that there were PE teachers deployed in the public secondary schools in Kisii County to teach PE but they were not enough and many schools assigned teachers not trained in PE to teach the subject. From the findings only 41% of the PE teachers were trained and 59% were not trained (Table 4.21). This finding has a major implication in that over 59% of the teachers assigned to teach PE lacked the knowledge in the subject to deliver her content to students and this explains why virtually in all the schools all teachers lacked schemes of work, lesson plans, lesson

notes and records of work (Table 4.37). Qualified PE personnel are more likely to use recommended teaching procedures and achieve program outcomes than non-qualified personnel (Burker & Thorper, 2007).

From the study all public secondary schools in Kisii County had a PE syllabus and at least one textbook for PE. 75% of the PE teachers and 83% of the principals felt that there were not enough textbooks and reference materials for teaching of PE in their schools and taking into consideration that over 58% of the teachers assigned to teach PE did not study the subject at diploma or university level, implementing the PE curriculum in Kisii county is tall order.

On maintenance of facilities and equipment for teaching of PE in public secondary schools in Kisii county the study revealed that majority of PE teachers felt they were poorly maintained with many indicating that they were only maintained as long as school teams were progressing in inter secondary school competitions. Majority of PE teachers indicated that maintenance of sports facilities and equipment was nonexistent in third term as schools concentrated on preparation of KCSE and end year examinations and PE was practically not taught.

These findings explained why 80% of the schools (Table 4.37) indicated that PE curriculum was never fully implemented since the syllabus was never fully covered. The astonishing statistic from the study was feeling of over 80% of the principals and PE teachers that PE teachers never used PE syllabus to teach and students were simply asked to “play” during PE time with whatever equipment available in the games store

during PE lessons. In a nutshell, the PE curriculum as envisaged by the ministry of basic education was not being implemented in public secondary schools in Kisii County from the findings in this study.

6.3 Conclusions

From the findings of the study it can be concluded that:

i. Indoor and Outdoor PE teaching facilities are available in public secondary schools in Kisii County. However they are inadequate with significant differences in adequacy noted between National Secondary Schools and Sub-County Secondary Schools and between Extra-County Secondary Schools and Sub-County Secondary Schools.

ii. PE equipment and apparatus are available in public secondary schools in Kisii County. However they are inadequate with significant differences in adequacy noted between National Secondary Schools and Sub-County Secondary Schools and between Extra-County Secondary Schools and Sub-County Secondary Schools.

iii. There are qualified PE teachers in public secondary schools in Kisii County even though they are inadequate with no significant differences in their adequacy in the four types of public secondary schools in Kisii County.

iv. PE Textbooks and related reference materials in public secondary schools in Kisii County are inadequate. There are significant differences in the extent of adequacy of PE textbooks and related reference material between National Secondary Schools and Sub-County Secondary Schools and between National Secondary Schools and Extra-County Secondary Schools and County Secondary Schools.

v. The time allocated for teaching PE in public secondary schools in Kisii County is inadequate with no significant differences in its adequacy in the four types of public secondary schools in Kisii County.

vi. The PE teaching facilities in public secondary schools in Kisii County are not well maintained. There are significant differences in the extent of maintenance of PE teaching facilities between National Secondary Schools and Sub-County Secondary Schools.

vii. The PE Curriculum has not been fully implemented in public secondary schools in Kisii County with no significant differences in extent of PE curriculum implementation in the four types of public secondary schools in Kisii County.

viii. PE should be made an examinable subject at KCSE to ensure that it is taken seriously by all stake-holders.

6.4 Recommendations for Policy/Practice

i. The government through the Ministry of Education should ensure that there are adequate equipment, facilities and other material resources for teaching and learning P.E in schools. This can be done by allocating adequate finances for the purchase of equipment and construction and maintenance of the required facilities for teaching and learning P.E.

ii. Parents and community should contribute towards ensuring that there are facilities and resources required for Physical Education. This can be done through donations and fundraising aimed at buying and maintaining the relevant facilities and equipment.

iii. The school administration should treat all subjects offered in the school in the same light. There is no one subject that is more important than the other. All subjects offered contribute equally to producing an all-round learner. They

therefore ensure that the available resources in the school should be equally shared. They should provide all the required facilities in all the subjects without biasness to some specific "less important" subjects.

iv. Teachers should improvise equipment for P.E for teaching Physical Education such as balls and shot-put. Schools should allocate the available facilities for multipurpose use. For example, soccer fields can also be used for hand ball.

v. Schools should also share the available PE teaching resources with the neighboring schools. This would allow proper use of the available resources through sharing thus maximizing their use. The schools can also use the available community facilities where they cannot afford to have their own.

vi. The Ministry of Education in collaboration with all secondary school administrators should come up with a policy on shared and well-maintained facilities within a given region. In this way, it will be in a position to provide standard grounds that could be shared by schools of a given region. This would also help to cut down on costs for all schools.

vii. The study recommends that P.E teachers should be trained and be prepared to handle Physical Education in schools. This can be done through in-service training aimed at improving their skills and knowledge on the subject. This will improve P.E teaching in schools in terms of effective use of the available resources and improvisation. This can be done through Kenya Institutes of Curriculum Development (KICD) and Ministry of Education. The Ministry of Education should also ensure that they provide well-trained and qualified manpower in Physical Education and that they are posted to each of the secondary schools countrywide.

viii. The study also recommends that there should be increased allocation of time for PE depending on class levels (more lessons for lower classes). This will allow the students and teachers to have adequate time thus improving teaching and learning of the subject in the schools.

ix. There should be proper implementation of the Physical Education curriculum. The Ministry of Education should make the Physical Education Curriculum readily available to all the interested parties. The various school administrators should see to it that the Physical Education Curriculum is effectively and appropriately implemented like any other subject offered in the school. The Quality Assurance and Standards officers should also visit schools regularly to help reinforce the fact that all subjects offered in the secondary schools, Physical Education included, are actually implemented as is officially accepted and approved.

6.5 Recommendations for Further Research

This study was limited in scope as it confined itself to Kisii County, Kenya. Related studies are recommended in other counties of Kenya with the view to establishing the extent of the present findings in order to establish similarities to make a more informed generalization throughout the country regarding the status of Physical Education resources available for the implementation of the PE curriculum in secondary schools.

The study also recommends that related studies be conducted using other categorizations of public secondary schools in Kenya like boys, girls and mixed Schools or boarding and day schools to make a more informed generalization throughout the country regarding the status of Physical Education resources available for the implementation of the PE curriculum in secondary schools.

The study further recommends that a study be carried out to assess the factors contributing to the differences in extent of adequacy of Physical Education resources available for the implementation of the PE curriculum in secondary schools.

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APPENDICES

Appendix A: Questionnaire

Data collected by this questionnaire is purely for academic purposes. The study seeks to ascertain the adequacy of teaching resources for the implementation of physical education curriculum in public secondary schools in Kisii County. Information provided will be treated with strict confidence. Do not put any name or identification on this questionnaire.

Answer all questions as indicated by ticking in the box of the option that applies.

Part I: Head-Teachers Questionnaire (HQ)

SECTION A: PERSONAL DATA

1. What is your gender? Male [ ] Female [ ]
2. What is your age? Below 30 [ ] 30 – 39 [ ] 40 - 49 [ ] Above 50 [ ]
3. What is your level of education?

   Diploma [ ] Graduate [ ] Postgraduate [ ]

4. How long have you served as a head-teacher?
   0 – 5 yrs [ ] 6 – 10 yrs [ ] 11 – 15 yrs [ ] Above 15 yrs [ ]
5. Type of school? National [ ] Extra-County [ ] County [ ] Sub-County [ ]
6. What is the student population?

   Below 100 [ ] 101 - 500 [ ] Above 500[ ]

SECTION B: ADEQUACY OF INDOOR AND OUTDOOR PE TEACHING FACILITIES

7. The following are some statements regarding the adequacy of indoor and outdoor PE teaching facilities in your school. Please indicate your level of agreement with the statements in the table provided below:

Statement	1	2	3	4	5
The football field is adequate for the number of students in the school.					
The hockey field is adequate for the number of students in the school.					
The rugby field is adequate for the number of students in the school.					
The athletics track is adequate for the number of students in the school.					
The basketball court is adequate for the number of students in the school.					

The volleyball court is adequate for the number of students in the school.					
The netball court is adequate for the number of students in the school.					
The handball court is adequate for the number of students in the school.					
The lawn tennis court is adequate for the number of students in the school.					
The multipurpose hall for indoor games is adequate for the number of students in the school.					
The gymnasium is adequate for the number of students in the school.					
The storage rooms are adequate for the number of students in the school.					
The changing rooms are adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION C: ADEQUACY OF PE EQUIPMENT AND APPARATUS

8. The following are some statements regarding the adequacy of indoor and outdoor PE teaching facilities in your school. Please indicate your level of agreement with the statements in the table provided below:

Statement	1	2	3	4	5
The soccer equipment in my school is adequate for the number of students in the school.					
The hockey equipment in my school is adequate for the number of students in the school.					
The rugby equipment in my school is adequate for the number of students in the school.					
The athletics equipment in my school is adequate for the number of students in the school.					
The basketball equipment in my school is adequate for the number of students in the school.					
The volleyball equipment in my school is adequate for the number of students in the school.					
The netball equipment in my school is adequate for the number of students in the school.					
The handball equipment in my school is adequate for the number of students in the school.					

The lawn tennis equipment in my school is adequate for the number of students in the school.					
The indoor games equipment in my school is adequate for the number of students in the school.					
The gymnastics/physical fitness & dance equipment in my school is adequate for the number of students in the school.					
The games kit is adequate for the number of students in the school.					
The footwear is adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION D: ADEQUACY OF TRAINED PHYSICAL EDUCATION TEACHERS

9. How many P.E teachers are there in your school? ……..

10. Do you have any training in P.E? Yes [ ] No [ ] If yes, please specify/explain?

……
……
…….

11. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The number of trained PE teachers in my school is adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION E: ADEQUACY OF PE TEXTBOOKS AND RELATED REFERENCE MATERIALS

12. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The PE textbooks and related reference materials available in my school is adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION F: ADEQUACY OF TIME ALLOCATED FOR TEACHING PHYSICAL EDUCATION

13. How many lessons are allocated on the school timetable per week for P.E in your school?

One lesson per week [ ] Two lessons per week [ ] Three lessons per week [] Four lessons per week [ ] Any other (Specify) ……

14. How long do the P.E lessons take (in minutes)? ……

15. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The time allocated for teaching PE in my school is adequate.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION G: EXTENT OF MAINTAINANCE OF PE TEACHING FACILITIES

16. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The facilities available in my school for teaching PE are in good working condition.					
The facilities available in my school for teaching PE are outdated.					
My school frequently repairs and replaces spoilt and defective facilities available for teaching PE.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION H: EXTENT OF IMPLEMENTATION OF PE CURRICULUM

17. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
PE teachers in my school teach PE using the official PE Syllabus by the ministry of education.					
PE teachers in my school prepare schemes of work, lesson plans and notes for teaching PE.					

PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes.					
PE teachers in my school use PE progress charts and monitor the students' progress in PE.					
PE performance in my school is shown on student's report cards.					
PE teachers in my school organize play activities properly and frequently and always teach or supervise these activities.					
My school finds alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.					
My school has a PE and sports dress policy.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Part II: PE Teachers Questionnaire (PETQ)

SECTION A: PERSONAL DATA

1. What is your gender? Male [ ] Female [ ]
2. What is your age? Below 30 [ ] 30 – 39 [ ] 40 - 49 [ ] Above 50 [ ]
3. What is your level of education?

   Diploma [ ] Graduate [ ] Postgraduate [ ]

4. How long have you served as a PE teacher?
   0 – 5 yrs [ ] 6 – 10 yrs [ ] 11 – 15 yrs [ ] Above 15 yrs [ ]

SECTION B: ADEQUACY OF INDOOR AND OUTDOOR PE TEACHING FACILITIES

5. The following are some statements regarding the adequacy of indoor and outdoor PE teaching facilities in your school. Please indicate your level of agreement with the statements in the table provided below:

Statement	1	2	3	4	5
The football field is adequate for the number of students in the school.					
The hockey field is adequate for the number of students in the school.					
The rugby field is adequate for the number of students in the school.					
The athletics track is adequate for the number of students in the school.					
The basketball court is adequate for the number of students in the school.					
The volleyball court is adequate for the number of students in the school.					
The netball court is adequate for the number of students in the school.					

The handball court is adequate for the number of students in the school.					
The lawn tennis court is adequate for the number of students in the school.					
The multipurpose hall for indoor games is adequate for the number of students in the school.					
The gymnasium is adequate for the number of students in the school.					
The storage rooms are adequate for the number of students in the school.					
The changing rooms are adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION C: ADEQUACY OF PE EQUIPMENT AND APPARATUS

6. The following are some statements regarding the adequacy of indoor and outdoor PE teaching facilities in your school. Please indicate your level of agreement with the statements in the table provided below:

Statement	1	2	3	4	5
The soccer equipment in my school is adequate for the number of students in the school.					
The hockey equipment in my school is adequate for the number of students in the school.					
The rugby equipment in my school is adequate for the number of students in the school.					
The athletics equipment in my school is adequate for the number of students in the school.					
The basketball equipment in my school is adequate for the number of students in the school.					
The volleyball equipment in my school is adequate for the number of students in the school.					
The netball equipment in my school is adequate for the number of students in the school.					
The handball equipment in my school is adequate for the number of students in the school.					
The lawn tennis equipment in my school is adequate for the number of students in the school.					

The indoor games equipment in my school is adequate for the number of students in the school.					
The gymnastics/physical fitness & dance equipment in my school is adequate for the number of students in the school.					
The games kit is adequate for the number of students in the school.					
The footwear is adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION D: ADEQUACY OF TRAINED PHYSICAL EDUCATION TEACHERS

7. How many P.E teachers are there in your school? ……..

8. Do you have any training in P.E? Yes [ ] No [ ] If yes, please specify/explain?

……
……
…….

9. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The number of trained PE teachers in my school is adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION E: ADEQUACY OF PE TEXTBOOKS AND RELATED REFERENCE MATERIALS

10. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The PE textbooks and related reference materials available in my school is adequate for the number of students in the school.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION F: ADEQUACY OF TIME ALLOCATED FOR TEACHING PHYSICAL EDUCATION

11. How many lessons are allocated on the school timetable per week for P.E in your school?

One lesson per week [ ] Two lessons per week [ ] Three lessons per week [] Four lessons per week [ ] Any other (Specify) ……

12. How long do the P.E lessons take (in minutes)? ……

13. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The time allocated for teaching PE in my school is adequate.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION G: EXTENT OF MAINTAINANCE OF PE TEACHING FACILITIES

14. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
The facilities available in my school for teaching PE are in good working condition.					
The facilities available in my school for teaching PE are outdated.					
My school frequently repairs and replaces spoilt and defective facilities available for teaching PE.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

SECTION H: EXTENT OF IMPLEMENTATION OF PE CURRICULUM

15. Please indicate your level of agreement with the statement in the table provided below:

Statement	1	2	3	4	5
PE teachers in my school teach PE using the official PE Syllabus by the ministry of education.					
PE teachers in my school prepare schemes of work, lesson plans and notes for teaching PE.					
PE teachers in my school use specific teaching objectives that can be evaluated to assess learning outcomes.					
PE teachers in my school use PE progress charts and monitor the students' progress in PE.					

PE performance in my school is shown on student's report cards.					
PE teachers in my school organize play activities properly and frequently and always teach or supervise these activities.					
My school finds alternative PE teaching facilities and equipment for the PE teaching facilities and equipment which are inadequate.					
My school has a PE and sports dress policy.					

Legend: 1 - Strongly Disagree, 2- Disagree, 3-Neither Agree nor Disagree, 4- Agree, 5- Strongly Agree

Thank you for your time and cooperation

Appendix B: Checklist for PE Teaching Resources

To be filled by the researcher while observing.

Section A: General information

Name of School ……... Date: ……

Section B:

S/NO.	ITEM OBSERVED	NUMBER
1.	**Indoor & Outdoor PE Teaching Facilities:**	
	A. Indoor Facilities:	
	Football Field	
	Hockey Field	
	Rugby Field	
	Cricket Field	
	Athletics Track	
	Basketball Court	
	Volleyball Court	
	Netball Court	
	Handball Court	
	Lawn Tennis Court	
	B: Outdoor Facilities:	
	Swimming Pool	
	Multipurpose Hall for Indoor Games	
	Gymnasium	
	Storage Rooms	
	Changing Rooms	
2.	**PE Equipment & Apparatus:**	

	Games Kit (Uniform) in Set for various games	
	Footwear (In pairs)	
	Soccer Equipment	
	Hockey Equipment	
	Rugby Equipment	
	Athletics Equipment (Sprints, Jumps, Relays, Distance Running, Hurdling, Javelin, Discus, Pole Vault, Shot Put & Tug-0f-war)	
	Basketball Equipment	
	Volleyball Equipment	
	Netball Equipment	
	Handball Equipment	
	Swimming Gear	
	Lawn Tennis Equipment	
	Indoor Games Equipment (Badminton & Table Tennis)	
	Gymnastics/Physical Fitness & Dance Equipment	
3.	**PE Textbooks & Related Reference Materials:**	
	Secondary School PE Syllabus	
	J.K.F. PE Textbooks for Form 1-4	
	K.I.E. PE Textbooks for Form 1-4	
	Know the Games Series in all games	
	Rule Books for all games	
	Other books in any game	
4.	**Schemes of Work**	
5.	**Lesson Plans**	
6.	**Lesson Notes**	
7.	**Progress Charts**	

Appendix C: List of Public Secondary Schools in Kisii County

	SCHOOL NAME		
A. NATIONAL SECONDARY SCHOOLS			
1.	KISII HIGH SCHOOL	40700002	BOYS BOARDING
2.	NYABURURU GIRLS HIGH SCHOOL	40700003	GIRLS BOARDING
B. EXTRA-COUNTY SECONDARY SCHOOLS			
1.	NYANCHWA BOYS HIGH SCHOOL	40703102	BOYS BOARDING
2.	KERERI GIRLS HIGH SCHOOL	40703103	GIRLS BOARDING
3.	CARDINAL OTUNGA HIGH SCHOOL - MOSOCHO	40703201	BOYS BOARDING
4.	NYAMAGWA SDA SECONDARY SCHOOL	40703403	MIXED BOARDING
5.	ST. ANGELA SENGERA GIRLS SECONDARY SCHOOL	40711101	GIRLS BOARDING
6.	ELCK ITIERIO BOYS HIGH SCHOOL	40716101	BOYS BOARDING
7.	SUNEKA SECONDARY SCHOOL	40716102	MIXED DAY & BOARDING
8.	ST. PAUL'S IGONGA SECONDARY SCHOOL	40716103	MIXED DAY & BOARDING
9.	ELCK ITIERIO GIRLS SECONDARY SCHOOL	40716118	GIRLS BOARDING
10.	TABAKA SECONDARY SCHOOL	40719102	MIXED DAY & BOARDING
11.	NYABIGENA SECONDARY SCHOOL	40719104	BOYS BOARDING
12.	ITIBO BOYS HIGH SCHOOL	40723201	BOYS BOARDING
13.	ST. THERESA'S NYANGUSU GIRLS SECONDARY SCHOOL	40732206	GIRLS BOARDING
14.	MOI GESUSU HIGH SCHOOL	40735101	BOYS BOARDING

15.	ST. CHARLES LWANGA ICHUNI GIRLS HIGH SCHOOL	40735201	GIRLS BOARDING
16.	ST. JOHNS NYAMAGWA BOYS HIGH SCHOOL	40740101	BOYS BOARDING
17.	SAMETA HIGH SCHOOL	40740102	BOYS BOARDING
18.	ST. MARY'S NYAMAGWA GIRLS SECONDARY SCHOOL	40740104	GIRLS BOARDING

C. COUNTY SECONDARY SCHOOLS

1.	KIOGE GIRLS HIGH SCHOOL	40703202	GIRLS BOARDING
2.	ST. AUGUSTINE OTAMBA SECONDARY SCHOOL	40703301	MIXED DAY & BOARDING
3.	SENIOR CHIEF MUSA NYANDUSI (KEGATI) SECONDARY SCHOOL	40703304	MIXED DAY & BOARDING
4.	ST. PAUL'S AMASAGO SECONDARY SCHOOL	40703401	BOYS BOARDING
5.	RIONDONG'A MIXED SECONDARY SCHOOL	40703406	MIXED BOARDING
6.	GAKERO ELCK SECONDARY SCHOOL	40711102	MIXED DAY
7.	NYAMONYO SECONDARY SCHOOL	40711105	MIXED DAY & BOARDING
8.	BOMBAMBA MIXED SECONDARY SCHOOL	40711106	MIXED DAY
9.	TENDERE SECONDARY SCHOOL	40711108	MIXED DAY
10.	NDURU BOYS HIGH SCHOOL	40719101	BOYS BOARDING
11.	RIOSIRI SECONDARY SCHOOL	40719103	MIXED DAY & BOARDING
12.	NYANGWETA SECONDARY SCHOOL	40719201	MIXED DAY & BOARDING
13.	MONIANKU SECONDARY SCHOOL	40719202	MIXED DAY & BOARDING
14.	IKOBA SECONDARY SCHOOL	40719205	MIXED DAY
15.	MARANI SECONDARY SCHOOL	40723101	MIXED BOARDING
16.	NYAKEIRI SECONDARY SCHOOL	40723102	BOYS BOARDING

17.	ITIBO GIRLS HIGH SCHOOL	40723203	GIRLS BOARDING
18.	RIOKINDO HIGH SCHOOL	40727101	BOYS BOARDING
19.	RIOKINDO MIXED SECONDARY SCHOOL	40727104	MIXED DAY GIRLS BOARDING
20.	MAGENA SECONDARY SCHOOL	40727202	MIXED BOARDING
21.	GIONSERI SECONDARY SCHOOL	40732105	GIRLS BOARDING
22.	NYAMACHE SECONDARY SCHOOL	40732114	BOYS BOARDING
23.	NYANTURAGO SECONDARY SCHOOL	40735104	MIXED DAY
24.	IBACHO SECONDARY SCHOOL	40735203	MIXED DAY
25.	NYANCHWA GIRLS HIGH SCHOOL	40703118	GIRLS BOARDING

D. SUB-COUNTY SECONDARY SCHOOLS

1. 40703105 ST.LAWRENCE KIONG'ONGI SECONDARY SCHOOL – Mixed Day
2. 40703109 BISHOP CHARLES MUGENDI SECONDARY SCHOOL – Mixed Day
3. 40703110 OUR LADY OF VICTORY NYAMBERA DOK SECONDARY SCHOOL – Mixed Day
4. 40703112 NYAURA DEB SECONDARY SCHOOL – Mixed Day
5. 40703114 BOBARACHO MIXED SECONDARY SCHOOL – Mixed Day
6. 40703115 KIAMABUNDU SECONDARY SCHOOL – Mixed Day
7. 40703116 DARAJA MBILI MIXED SECONDARY SCHOOL – Mixed Day
8. 40703117 GETEMBE SECONDARY SCHOOL – Mixed Day
9. 40703203 NYATIEKO MIXED SECONDARY SCHOOL – Mixed Day
10. 40703205 RAGANGA SECONDARY SCHOOL – Mixed Day
11. 40703206 ST. PATRICK'S MOSOCHO SECONDARY SCHOOL – Mixed Day
12. 40703207 ST. LUKE'S KANUNDA SECONDARY SCHOOL – Mixed Day
13. 40703208 MATIEKO MIXED SECONDARY SCHOOL – Mixed Day

14. 40703209 ST. AMBROSE NYAORE SECONDARY SCHOOL – Mixed Day
15. 40703210 NYAKEOGIRO SECONDARY SCHOOL – Mixed Day
16. 40703211 NYAGISAI SECONDARY SCHOOL – Mixed Day
17. 40703212 ONG'ICHA SECONDARY SCHOOL – Mixed Day
18. 40703214 KIOGO SDA SECONDARY SCHOOL – Mixed Day
19. 40703215 ST. CATHERINE IRANDA SECONDARY – Mixed Day
20. 40703217 RIOTERO SDA SECONDARY SCHOOL – Mixed Day
21. 40703218 QUEEN OF APOSTLES SECONDARY SCHOOL – Mixed Day
22. 40703302 NYANKO MIXED SECONDARY SCHOOL – Mixed Day
23. 40703303 NYAGUTA SECONDARY SCHOOL – Mixed Day
24. 40703305 MATUNWA SDA SECONDARY SCHOOL – Mixed Day
25. 40703306 AMARIBA SECONDARY SCHOOL – Mixed Day
26. 40703308 NYOSIA MIXED SECONDARY SCHOOL – Mixed Day
27. 40703312 MASONGO MIXED SECONDARY SCHOOL – Mixed Day
28. 40703313 BORONYI MIXED SECONDARY SCHOOL – Mixed Boarding
29. 40703402 GIANCHERE FRIENDS SECONDARY SCHOOL – Mixed Day
30. 40703404 IRONDI SECONDARY SCHOOL – Mixed Day
31. 40703405 IBENO SECONDARY SCHOOL – Mixed Day
32. 40703407 KIRWA MIXED SECONDARY SCHOOL – Mixed Day
33. 40703408 ST. STEPHEN'S NYAMWARE SECONDARY SCHOOL – Mixed Day
34. 40703409 KEOKE FRIENDS SECONDARY SCHOOL – Mixed Day
35. 40703410 IRUNGU PAG SECONDARY SCHOOL – Mixed Day
36. 40703411 ST PETER'S KERERA MIXED SECONDARY SCHOOL – Mixed Day
37. 40703412 NYANSIRA SDA SECONDARY SCHOOL – Mixed Day
38. 40703413 BORUMA SECONDARY SCHOOL – Mixed Day
39. 40703414 BIRONGO SDA SECONDARY SCHOOL – Mixed Day
40. 40703415 OUR LADY OF VICTORY NYABIOSI `N' SECONDARY SCHOOL – Mixed Day
41. 40703416 ST. FRANCIS KABOSI SECONDARY SCHOOL – Mixed Day
42. 40703417 NYANKORORO SECONDARY SCHOOL – Mixed Day

43. 40711102 GAKERO ELCK SECONDARY SCHOOL – Mixed Day
44. 40711103 SENGERA PARISH SECONDARY SCHOOL – Girls Boarding
45. 40711104 NYANSARA SECONDARY SCHOOL – Mixed Day
46. 40711107 BUYONGE SECONDARY SCHOOL – Mixed Day
47. 40711109 MACHONGO SECONDARY SCHOOL – Mixed Day
48. 40711110 MATAGARO SECONDARY SCHOOL – Mixed Day
49. 40711112 GAKERO SDA SECONDARY SCHOOL – Mixed Day
50. 40711113 GETUKI MIXED SECONDARY SCHOOL – Mixed Day
51. 40711114 KEBETRE SDA SECONDARY SCHOOL – Mixed Day
52. 40711115 KINENI PEFA SECONDARY SCHOOL – Mixed Day
53. 40711116 MAROBA MIXED SECONDARY SCHOOL – Mixed Day
54. 40711117 NYAGENKE D.E.B SECONDARY SCHOOL – Mixed Day
55. 40711118 NYATARO MIXED SECONDARY SCHOOL – Mixed Day
56. 40711119 NYABURUMBASI SECONDARY SCHOOL – Mixed Day
57. 40711120 ST. JOSEPH'S NYANSAKIA SECONDARY SCHOOL – Mixed Day
58. 40716104 EKERUBO MIXED SECONDARY SCHOOL – Mixed Day & Boarding
59. 40716105 ST VINCENT'S OMWARI SECONDARY SCHOOL – Mixed Day
60. 40716106 MATONGO MIXED SECONDARY SCHOOL – Mixed Day
61. 40716107 IRUMA MIXED SECONDARY SCHOOL – Mixed Day
62. 40716109 GESERO SECONDARY SCHOOL – Mixed Day
63. 40716110 ISAMWERA SECONDARY SCHOOL – Mixed Day & Boarding
64. 40716112 BOTORO SECONDARY SCHOOL – Mixed Day & Boarding
65. 40716113 ST. TERESAS BOGIAKUMU SECONDARY ASCHOOL – Mixed Day
66. 40716114 NYABIMWA SECONDARY SCHOOL – Mixed Day
67. 40716115 KIABUSURA SECONDARY SCHOOL – Mixed Day
68. 40716117 ITIBO ELCK BOYS SECONDARY SCHOOL – Boys Day
69. 40716119 NYANGOGE GIRLS SECONDARY SCHOOL – Girls Day
70. 40716120 MOSANDO SDA SECONDARY SCHOOL – Mixed Day
71. 40716121 BOGITAA MIXED ELCK SECONDARY SCHOOL – Mixed Boarding
72. 40719105 NYAKORERE PAG SECONDARY SCHOOL – Mixed Day

73. 40719106 NYAKEMBENE SECONDARY SCHOOL – Mixed Day
74. 40719107 OMOBIRI SECONDARY SCHOOL – Mixed Day
75. 40719108 KIABIGORIA SECONDARY SCHOOL – Mixed Day
76. 40719109 NYAMUE SECONDARY SCHOOL – Mixed Day
77. 40719110 RAMOYA HILL SECONDARY SCHOOL – Mixed Day
78. 40719111 ST JOSEPH'S KIORORI SECONDARY – Mixed Day
79. 40719112 NYAMONARIA MIXED SECONDARY SCHOOL – Mixed Day
80. 40719113 MARONGO PAG SECONDARY SCHOOL – Mixed Day
81. 40719114 NYACHENGE ELCK SECONDARY SCHOOL – Mixed Day
82. 40719115 GOTI CHAKI SECONDARY SCHOOL – Mixed Day
83. 40719117 EMESA MIXED SECONDARY SCHOOL – Mixed Day
84. 40719118 TABAKA TOWNSHIP SECONDARY SCHOOL – Mixed Day
85. 40719119 AMAIKO SDA SECONDARY SCHOOL – Mixed Day
86. 40719121 NYANGO D.O.K. SECONDARY SCHOOL – Mixed Day
87. 40719203 KIAGWARE SECONDARY SCHOOL – Mixed Day
88. 40719204 MUMA SCONDARY SCHOOL – Mixed Day
89. 40719205 IKOBA SECONDARY SCHOOL – Mixed Day
90. 40719206 NYAMONDO SDA SECONDARY SCHOOL – Mixed Day
91. 40719207 NDONYO SECONDARY SCHOOL – Mixed Day
92. 40719208 MARIWA SECONDARY SCHOOL – Mixed Day & Boarding
93. 40719209 ST. LINUS ETAGO DOK SECONDARY SCHOOL – Girls Day & Boarding
94. 40719210 ST. PETER'S NYANGWETA SECONDARY SCHOOL – Mixed Day
95. 40719211 NYABINE D.E.B. SECONDARY SCHOOL – Mixed Day
96. 40719212 RIAGUMO MIXED SECONDARY SCHOOL – Mixed Day
97. 40719213 KARUNGU SECONDARY SCHOOL – Mixed Day
98. 40719214 ST. ALPHONCE NYABINE SECONDARY SCHOOL – Mixed Day
99. 40719215 BOGICHONCHO SECONDARY SCHOOL – Mixed Day
100. 40719216 MAROO ESINDE SECONDARY SCHOOL – Mixed Day
101. 40719219 NYASASA SDA SECONDARY SCHOOL – Mixed Day
102. 40719221 NCHORO SECONDARY SCHOOL – Mixed Day

103.40719222 NYATWONI SECONDARY SCHOOL – Mixed Day

104.40719223 MESOCHO SECONDARY SCHOOL – Mixed Day

105.40719224 NYAMEIRA ELCK MIXED SECONDARY SCHOOL – Mixed Day

106.40719225 NYAKEYO MIXED SECONDARY SCHOOL – Mixed Day

107.40723103 NYASORE SECONDARY SCHOOL – Mixed Boarding

108.40723104 NYAGESENDA SECONDARY SCHOOL – Mixed Boarding

109.40723105 SENSI MIXED SECONDARY SCHOOL – Mixed Boarding

110.40723106 RIOMA SECONDARY SCHOOL – Mixed Boarding

111.40723107 ERAMBA MIXED SECONDARY SCHOOL – Mixed Boarding

112.40723108 GETURI MIXED SECONDARY SCHOOL – Mixed Boarding

113.40723109 KIARENI ELCK SECONDARY SCHOOL – Mixed Boarding

114.40723110 ENGOTO PAG SECONDARY SCHOOL – Mixed Boarding

115.40723112 NYABWOROBA SECONDARY SCHOOL – Mixed Boarding

116.40723113 NYAGONYI ELCK SECONDARY SCHOOL – Mixed Boarding

117.40723114 NYAKOME FRIENDS SECONDARY SCHOOL – Mixed Boarding

118.40723115 MASAKWE PAG SECONDARY SCHOOL – Mixed Boarding

119.40723202 KENYORO SECONDARY SCHOOL – Mixed Boarding

120.40723204 ST. JOHN'S METEMBE SECONDARY SCHOOL – Mixed Boarding

121.40723205 GAMBA SDA MIXED SECONDARY SCHOOL – Mixed Boarding

122.40723206 ENTANDA SECONDARY SCHOOL – Mixed Boarding

123.40723207 ST. PAUL'S NYANKANDA – Mixed Boarding

124.40723208 NYAKOORA SECONDARY SCHOOL – Mixed Boarding

125.40723209 TAMBACHA COG SECONDARY SCHOOL – Mixed Boarding

126.40723210 ST. JORAM ASANYO SECONDARY SCHOOL – Mixed Boarding

127.40723211 NYAKEYO COG SECONDARY SCHOOL – Mixed Boarding

128.40723212 MOSOCHO PAG MIXED SECONDARY SCHOOL – Mixed Boarding

129.40723213 NYANSAKIA PAG SECONDARY SCHOOL – Mixed Boarding

130.40723214 MESARIA SECONDARY SCHOOL – Mixed Boarding

131.40727102 MOKOMONI SECONDARY SCHOOL – Mixed Day

132.40727103 KENYENYA MIXED SECONDARY SCHOOL – Mixed Day & Boarding

133.40727105 MOKUBO SECONDARY SCHOOL – Mixed Day & Boarding

134.40727106 KERONGORORI MIXED SECONDARY SCHOOL – Mixed Day

135.40727107 NYABIORE SECONDARY SCHOOL – Mixed Day

136.40727108 NYAKORERE MIXED SDA SECONDARY SCHOOL – Mixed Day

137.40727109 EBEREGE SECONDARY SCHOOL – Mixed Day

138.40727110 SENGERA S.D.A MIXED SECONDARY SCHOOL – Mixed Day

139.40727111 ENDERETI MIXED SECONDARY SCHOOL – Mixed Day

140.40727112 MAIGA SECONDARY SCHOOL – Mixed Day

141.40727113 RIYABU E.L.C.K SECONDARY SCHOOL – Mixed Day

142.40727114 NYABINYINYI SECONDARY SCHOOL – Mixed Day

143.40727115 RANDANI C.O.G MIXED SECONDARY SCHOOL – Mixed Day

144.40727116 MOTEIRIBE SECONDARY SCHOOL – Mixed Day

145.40727117 ST. FRANCIS METEMBE SECONDARY SCHOOL – Mixed Day

146.40727119 KEBABE S.D.A. SECONDARY SCHOOL – Mixed Day

147.40727120 NYAIBATE C.O.G. SECONDARY SCHOOL – Mixed Day

148.40727121 KENYORO PAG MIXED SECONDARY SCHOOL – Mixed Day

149.40727122 OMOBERA SDA GIRLS SECONDARY SCHOOL – Girls Boarding

150.40727123 ST PETERS KEBERESI SECONDARY SCHOOL – Mixed Day

151.40727125 NYANGETI D.E.B MIXED SECONDARY SCHOOL – Mixed Day

152.40727126 MOBIRONA P.A.G MIXED SECONDARY SCHOOL – Mixed Day

153.40727127 NYAKOIBA SECONDARY SCHOOL – Mixed Day & Boarding

154.40727128 IBENCHO SECONDARY SCHOOL – Mixed Day

155.40727129 MESABAKWA SECONDARY SCHOOL – Mixed Day

156.40727130 GEKONGO DEB SECONDARY SCHOOL – Mixed Day

157.40727131 NYAMIOBO MIXED SECONDARY SCHOOL – Mixed Day

158.40727132 ST. EDWARD NYABIOTO SECONDARY SCHOOL – Mixed Day

159.40727133 ST AUGUSTINE MAGENCHE SECONDARY SCHOOL – Mixed Day

160.40727201 IGORERA SECONDARY SCHOOL – Mixed Day

161.40727202 MAGENA SECONDARY SCHOOL – Mixed Boarding

162.40727203 EMESA A.I.C SECONDARY SCHOOL – Mixed Day

163.40727204 NYAMESOCHO SECONDARY SCHOOL – Mixed Day

164.40727205 ST JOHN'S ICHUNI SECONDARY SCHOOL – Mixed Day

165.40727206 RIANYANCHABERA SECONDARY SCHOOL – Mixed Day

166.40727207 RITEMBU MIXED SECONDARY SCHOOL – Mixed Day

167.40727208 MOSENSEMA MIXED SECONDARY – Mixed Day

168.40727209 GESABAKWA S.D.A SECONDARY SCHOOL – Mixed Day

169.40727210 IYENGA SECONDARY SCHOOL – Mixed Day

170.40732101 BORANGI P.A.G SECONDARY SCHOOL – Mixed Day

171.40732102 MAJI MAZURI SECONDARY SCHOOL – Mixed Day

172.40732103 SUGUTA SECONDARY SCHOOL – Mixed Day

173.40732104 NYOERA SECONDARY SCHOOL – Mixed Day

174.40732106 ST JOSEPH'S NYACHENGE SECONDARY SCHOOL – Mixed Day

175.40732107 KEGOCHI PAG SECONDARY SCHOOL – Mixed Day

176.40732108 IKENYE SECONDARY SCHOOL – Mixed Day

177.40732109 IMENWA SECONDARY SCHOOL – Mixed Day

178.40732110 IGOMA MIXED SECONDARY SCHOOL – Mixed Day

179.40732111 KIOBEGI SECONDARY SCHOOL – Mixed Day

180.40732112 NYABITE A.C SECONDARY SCHOOL – Mixed Day

181.40732113 ST CHARLES KABEO SECONDARY SCHOOL – Mixed Day

182.40732115 ST. JAMES GIONSARIA SECONDARY SCHOOL – Mixed Day

183.40732116 ROGONGO DEB MIXED SECONDARY SCHOOL – Mixed Day

184.40732117 NYABITE DOK SECONDARY SCHOOL – Mixed Day

185.40732118 MOSORA SDA SECONDARY SCHOOL – Mixed Day

186.40732119 ST. JOHN'S OROGARE SECONDARY SCHOOL – Mixed Day

187.40732120 NYABISASE MIXED SECONDARY SCHOOL – Mixed Day

188.40732121 ST. THOMAS TURWA SECONDARY SCHOOL – Mixed Day

189.40732123 ITUMBE DOK SECONDARY SCHOOL – Mixed Day

190.40732124 NYACHOGOCHOGO AIC SECONDARY SCHOOL – Mixed Day

191.40732125 EBIGOGO SECONDARY SCHOOL – Mixed Day

192.40732126 ST. GABRIEL RIYABO SECONDARY SCHOOL – Mixed Day

193.40732129 RIAMBASE DEB SECONDARY SCHOOL – Mixed Day

194.40732130 NYABISIA DEB MIXED SECONDARY SCHOOL – Mixed Day

195.40732201 NAIKURU P.A.G SECONDARY SCHOOL – Mixed Day

196.40732202 ISENA P.A.G SECONDARY SCHOOL – Mixed Day

197.40732203 ST PAUL'S NYACHEKI SECONDARY SCHOOL – Mixed Day

198.40732204 MOCHENGO P.A.G SECONDARY SCHOOL – Mixed Day

199.40732205 NYANGUSU MIXED SECONDARY SCHOOL – Mixed Day

200.40732206 ST. THERESA'S NYANGUSU GIRLS SECONDARY SCHOOL – Girls Boarding

201.40732207 RIGENA P.A.G SECONDARY SCHOOL – Mixed Day

202.40732208 BORANGI S.D.A SECONDARY SCHOOL – Mixed Day

203.40732209 NYAMAKOROBO F.A.M SECONDARY SCHOOL – Mixed Day

204.40732210 KIONDUSO P.A.G. SECONDARY SCHOOL – Mixed Day

205.40732211 GETAI SDA MIXED SECONDARY SCHOOL – Mixed Day

206.40732212 MOGONGA P.A.G SECONDARY SCHOOL – Mixed Day

207.40732213 THE SACRED HEART OF JESUS EKEONGA SECONDARY SCHOOL – Mixed Day

208.40732214 EBIOSI P.A.G MIXED SECONDARY SCHOOL – Mixed Day

209.40732216 NYAMUYA ELCK SECONDARY SCHOOL – Mixed Day

210.40732217 ST. JOSEPH'S SUGUBO SECONDARY SCHOOL – Mixed Day

211.40732218 ISENA MISSION GIRLS SECONDARY SCHOOL – Girls Boarding

212.40732219 ENCHORO PEFA SECONDARY SCHOOL – Mixed Day

213.40732220 NYABOTERERE MIXED SECONDARY SCHOOL – Mixed Day

214.40732221 SIMITI SDA SECONDARY SCHOOL – Mixed Day

215.40735102 ST. CECILIA RAMASHA SECONDARY SCHOOL – Mixed Day

216.40735103 BONG'ONTA SECONDARY SCHOOL – Mixed Day

217.40735105 MASIMBA HIGH SCHOOL – Mixed Day

218.40735106 NYAMESOCHO SECONDARY SCHOOL – Mixed Day

219.40735107 SOSERA SECONDARY SCHOOL – Mixed Day

220.40735109 ST JOSEPH MUKASA MATIBO SECONDARY SCHOOL – Mixed Day

221.40735110 CHIBWOSI SECONDARY SCHOOL – Mixed Day

222.40735111 ST LUKE`S EKWAREO SECONDARY SCHOOL – Mixed Day

223.40735112 GETERI SECONDARY SCHOOL – Mixed Day

224.40735113 ST. MARK MOKOROGOINWA SECONDARY SCHOOL – Mixed Day

225.40735114 METEMBE S.D.A SECONDARY SCHOOL – Mixed Day

226.40735115 MESABISABI MIXED SECONDARY SCHOOL – Mixed Day

227.40735116 MOSISA SECONDARY SCHOOL – Mixed Day

228.40735117 RIURI MIXED SECONDARY SCHOOL – Mixed Day

229.40735118 GEKONGE D.E.B SECONDARY SCHOOL – Mixed Day

230.40735119 RIABIGUTU P.A.G. SECONDARY SCHOOL – Mixed Day

231.40735120 SUGUTA COG MIXED SECONDARY SCHOOL – Mixed Day

232.40735121 MOREREMI SDA SECONDARY SCHOOL – Mixed Day

233.40735202 ST. PETERS CHIRONGE SECONDARY SCHOOL – Mixed Day

234.40735204 GESABAKWA SECONDARY SCHOOL – Mixed Day

235.40735205 AMABUKO SECONDARY SCHOOL – Mixed Day

236.40735206 MOBAMBA SECONDARY SCHOOL – Mixed Day

237.40735207 MUSA NYANDUSI – GESICHO MIXED DAY SECONDARY – Mixed Day

238.40735208 MOGWEKO SECONDARY SCHOOL – Mixed Day

239.40735209 KIAMOKAMA FRIENDS SECONDARY SCHOOL – Mixed Day

240.40735210 MOREMANI P.A.G SECONDARY SCHOOL – Mixed Day

241.40735211 AMASEGE MIXED SECONDARY SCHOOL – Mixed Day

242.40735212 NYAMAGESA C.O.G MIXED SECONDARY SCHOOL – Mixed Day

243.40735213 HEMA – CHITAGO SECONDARY SCHOOL – Mixed Day

244.40735214 NYAMAGESA D.E.B SECONDARY SCHOOL – Mixed Day

245.40735215 MASABO SECONDARY SCHOOL – Mixed Day

246.40735216 ST. JAMES ICHUNI SECONDARY SCHOOL – Mixed Day

247.40735217 BOGECHE DOK SECONDARY SCHOOL – Mixed Day

248.40735218 KEGOGI D.E.B MIXED SECONDARY SCHOOL – Mixed Day

249.40735219 NYANKONONI D.E.B SECONDARY SCHOOL – Mixed Day

250.40740103 BOITANG’ARE FRIENDS SECONDARY SCHOOL – Mixed Day

251.40740105 BISHOP MUGENDI NYAKEGOGI SECONDARY SCHOOL – Mixed Day

252.40740106 NYABONGE SDA SECONDARY SCHOOL – Mixed Day

253.40740107 GESURE SDA SECONDARY SCHOOL – Mixed Day

254.40740108 KIONG'ONGI SECONDARY SCHOOL – Mixed Day

255.40740109 NYAGIKI SECONDARY SCHOOL – Mixed Day

256.40740110 ST. DOMINIC RUSINGA MIXED SECONDARY SCHOOL – Mixed Day

257.40740111 NYAGUKU D.O.K. SECONDARY SCHOOL – Mixed Day

258.40740112 ST. PETER'S RIANYACHUBA SECONDARY SCHOOL – Mixed Day

259.40740113 SAMETA PAG SECONDARY SCHOOL – Mixed Day

260.40740114 RIOBARA SECONDARY SCHOOL – Mixed Day

261.40740115 RIANCHORE MIXED SECONDARY SCHOOL – Mixed Day

262.40740116 KENYORO MIXED D.O.K. SECONDARY SCHOOL – Mixed Day

263.40740117 NYAGANCHA MIXED SECONDARY SCHOOL – Mixed Day

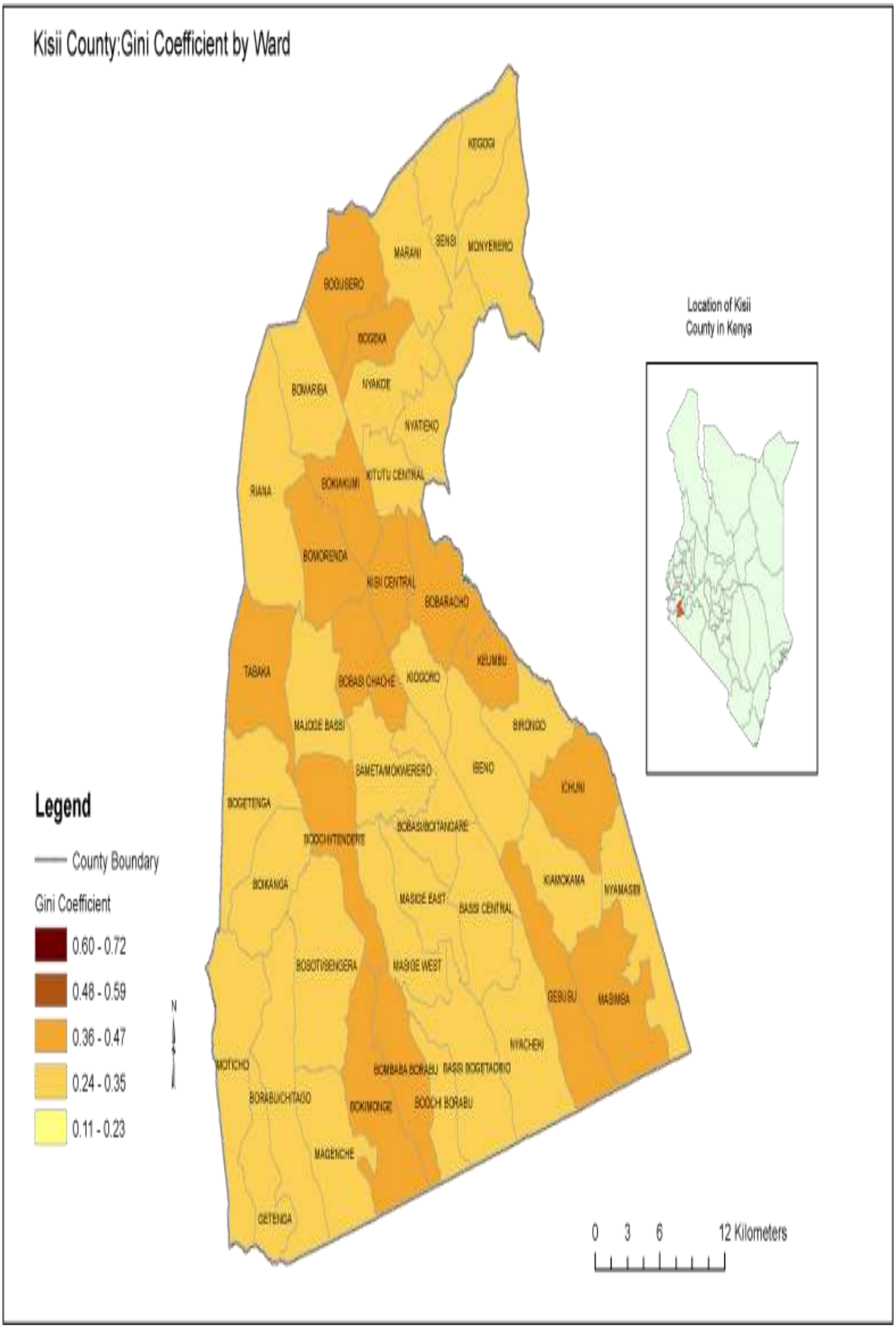
264.40740118 GETENGA MIXED SECONDARY SCHOOL – Mixed Day

265.40740119 NYAMONEMA SECONDARY SCHOOL – Mixed Day

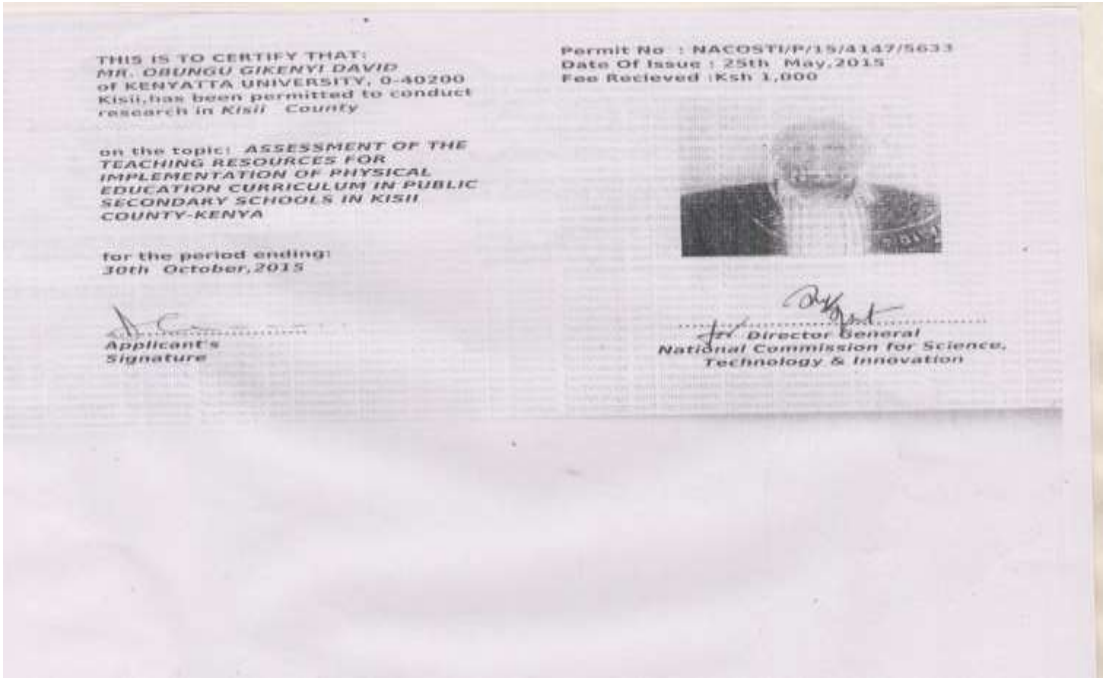
266.40740120 KENYERERE MIXED SECONDARY SCHOOL – Mixed Day

267.40740121 GEKONGO I DEB MIXED SECONDARY SCHOOL – Mixed Day

Appendix D: Map of Kisii County



Appendix E: Research Permit



THIS IS TO CERTIFY THAT:
MR. OBUNGU GIKENYI DAVID
of KENYATTA UNIVERSITY, 0-40200
Kisii, has been permitted to conduct
research in Kisii County

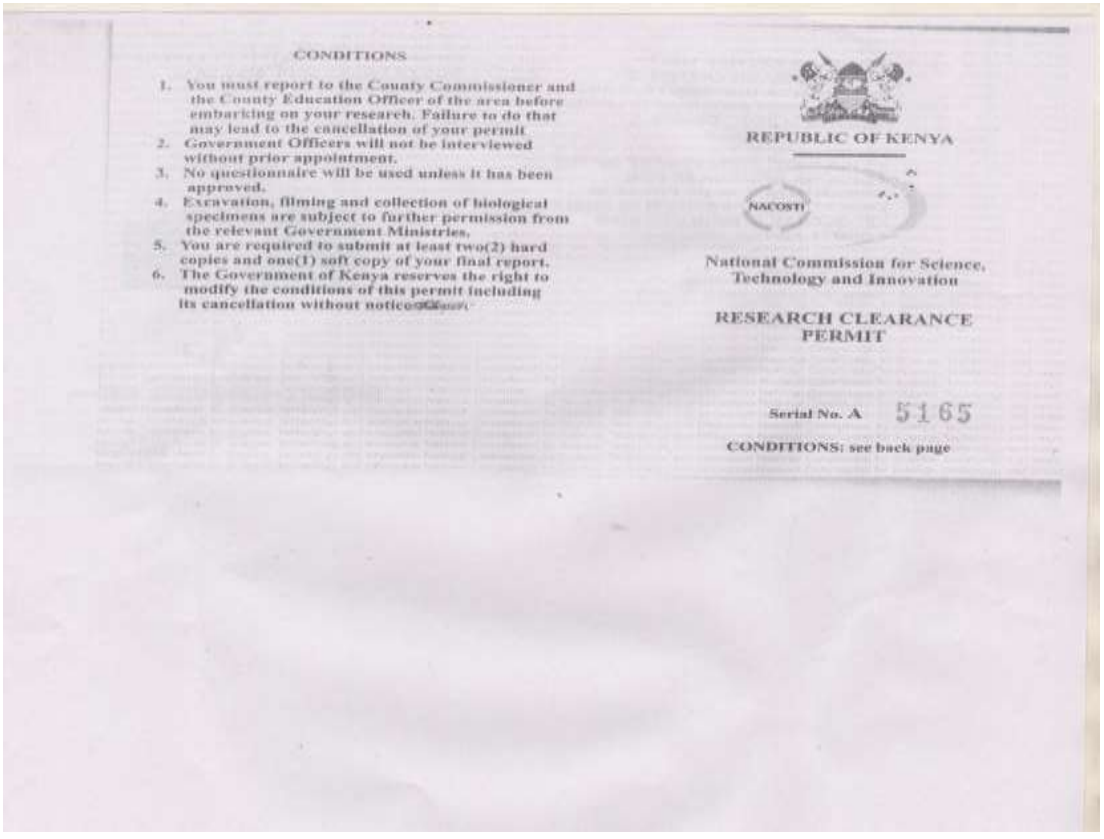
on the topic: ASSESSMENT OF THE TEACHING RESOURCES FOR IMPLEMENTATION OF PHYSICAL EDUCATION CURRICULUM IN PUBLIC SECONDARY SCHOOLS IN KISII COUNTY-KENYA

for the period ending:
30th October, 2015

Applicant's
Signature

Permit No : NACOSTI/P/15/4147/5633
Date Of Issue : 25th May, 2015
Fee Recieved :Ksh 1,000

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 5165

CONDITIONS: see back page

Appendix F: Research Authorization Letter from NACOSTI

NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@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.

Date: 25th May, 2015

NACOSTI/P/15/4147/5633

Obungu Gikenyi David
Kenyatta University
P.O Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Assessment of the teaching resources for implementation of physical education curriculum in public secondary schools in Kisii County-Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kisii County** for a period ending **30th October, 2015.**

You are advised to report to **the County Commissioner and the County Director of Education Kisii 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.

DR. S. K. LANGAT, OGW
FOR: DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Kisii County.

The County Director of Education
Kisii County.

National Commission for Science, Technology and Innovation is ISO 9001: 2008 Certified