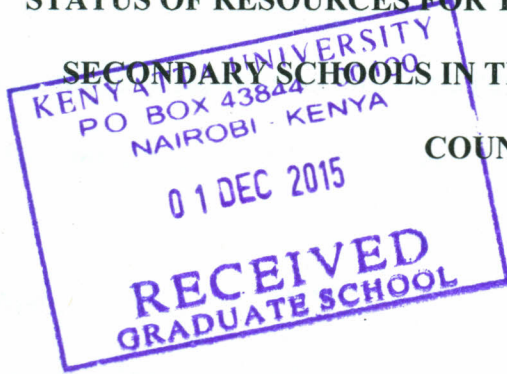


**STATUS OF RESOURCES FOR TEACHING PHYSICAL EDUCATION IN
SECONDARY SCHOOLS IN THIKA EAST SUB-COUNTY, KIAMBU
COUNTY, KENYA**



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**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
SCIENCE (PHYSICAL AND HEALTH EDUCATION) IN THE SCHOOL OF
APPLIED HUMAN SCIENCES OF KENYATTA UNIVERSITY**

NOVEMBER 2015

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DECLARATION

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

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DEDICATION

This thesis is dedicated to my wife Gladys Wanjiku, my sons: Joe, Joshua and Jeremy; my dad Joe Senior, my brothers and sisters for their support during my course work and the writing of thesis.

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First of all, I thank the Almighty God for enabling me to go through the course successfully.

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OPERATIONAL DEFINITION OF TERMS

The following terms are defined for the purpose of this study:

Boarding School: An institution of learning where some or all of the students reside during the school term.

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 material 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.

Effective Teaching—Refers to the use of available facilities and resources to facilitate teaching and learning of Physical Education.

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

Mixed School: A school where student population is composed of both boys and girls.

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, equipments and time allocated for Physical Education

Status of P.E Resources: Refers to availability and adequacy of P.E facilities, equipment and time allocated for teaching of the subject

Type of school: Categorized as mixed, Boys boarding or Girls boarding school.

ABBREVIATION AND ACRONYMS

BEd	-	Bachelor of Education
KIE	-	Kenya Institute of Education
KICD	-	Kenya Institute of Curriculum Development
Med	-	Master of Education
MOEST	-	Ministry of Education Sciences and Technology
PE	-	Physical Education
SI	-	Secondary Teacher One
TSC	-	Teachers Service Commission
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
USA	-	United States of America

ABSTRACT

The purpose of this study was to assess the status of resources for teaching Physical Education (P.E) in secondary Schools in Thika East Sub-County, Kiambu County. Descriptive research design was used for the study. The target population of this study comprised of P.E teachers and form two and three students in secondary schools in Thika East Sub-County. All the 19 secondary schools in Thika East Sub-County were included in the study where twoschools were used for pre-testing and 17 were used in the actual study. A sample size of 731 respondents was targeted, by the study out of which 645 responded (constituting 600 students and 45 teachers) giving a response rate of 88%. SPSS was used to analyze the quantitative data where frequencies and percentages were used to analyze the data. On the adequacy of teachers, the study found that 81% of the respondents indicated that the number of P.E teachers were inadequate. Regarding the perceptions on the adequacy of time allocated for the teaching of P.E the study found that 69% of the respondents indicated that they consider the time allocated for the P.E. to be inadequate. On the availability of P.E equipment, the following equipment was available: balls 82.5%, games kits (40%) and footwear (37.5%). On the availability of P.E facilities, the following facilities were available football fields as indicated by 89.6%, volley ball courts (81.3%), netball field (60%) and handball field 57.6%. On the adequacy of physical facilities, the study further found, that all the respondents (100%) indicated that hockey courts were inadequate, 50.8% indicated that volleyball field was inadequate and 50.7% indicated that basketball court was inadequate. Finally, on the availability of text books and reference materials, the study found that most of the respondents (80 %) indicated that there are no books and reference materials for teaching P.E and that where text books and reference materials were available; the materials were inadequate as indicated by the respondents. Chi-square showed that teaching and learning of P.E in schools was affected by professional qualification of teachers, availability and adequacy of equipment, facilities, funds and text books and reference materials. The study concluded that there was shortage of equipment, facilities, P.E teachers and text book and reference materials which affects teaching and learning of P.E in schools. The study recommended that the government through the Ministry of Education Science and Technology should ensure that there are adequate facilities and equipment for teaching and learning P.E in schools. P.E teachers should be trained and be prepared to handle Physical Education in schools. The study finally recommended that another study on teaching and learning of P.E in secondary schools in other districts.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Physical Education activities in various forms have always been an integral part of people living in social groups. The major activities of the ancient communities revolved around the development of physical efficiency and challenges for survival (Hardman, 2009). According to Dauer and Pangrazi (1990), the Greeks were the first to embrace the concept of Physical Education to develop the whole human being. The aim was to produce citizens with a high degree of physical prowess to ensure that they could defend their homeland. The indigenous African societies too were involved in various forms of physical activities for recreational, security as well as development reasons (Wamukoya, 1985). Participation in physical activities has therefore been basic to the ancient and modern cultures.

Physical Education has been identified as being important in the school curriculum because it contributes to the goals of education in many significant ways. Kerlinger (2000) defines school curriculum as all that is planned to enable the students acquire and develop the desired knowledge, skills and attitudes. Physical Education's unique contribution to the development of the total person cannot be overlooked. Bucher and Weust (1999) state that Physical Education is the only area of the school curriculum that can promote the development of motor skills and fitness. It is the only subject in the curriculum that contributes directly to development in the psychomotor domain (Bucher

& Weust, 1999). Thus a lot of emphasis should be put on the development and teaching of this subject.

Given the emphasis put on the importance of Physical Education to the total development of the students, it has been included as a subject of study in secondary schools in Kenya. As Howley and Franks (2007) observe that Physical Education at any level in a setting does not function in a vacuum. Problems and factors of varying magnitude at times have an impact on the teaching and learning of the subject. According to Kane (1994), such difficulties limit the Physical Education teachers from their effectiveness in the teaching process. Among the problems identified is lack of specialized training in the field of Physical Education (Kane, 1994). Among the secondary schools, majority of teachers are not trained in Physical Education except those who have undertaken their training in diploma colleges or enrolled in universities that offer the subject (Kane, 1994). Others only take or study the subject due to developed interests in sports.

According to the Ministry of Education Guidelines (2003), Physical Education is compulsory in both secondary and primary schools in Kenya but the extent to which this is enforced is not clear. In secondary schools in Kenya, there is one lesson of forty minutes per week allotted for teaching Physical Education. However, the subject is not examinable. This can impact negatively on the subject because it may not be taken seriously. According to the Kenya Institute of Education (KIE) (2006), an approved curriculum includes subjects that are timetabled within the official school time and have syllabi approved by the Kenya Institute of Education, textbooks and are taught by

trained teachers. The inclusion of Physical Education on the timetable shows its importance in the total development of the students.

In a worldwide survey concerning the state and status of PE in schools, Marshall and Hardman (2000, p.223) noted that, physical education has been pushed into a defensive position. It is suffering from decreasing curriculum time allocation, budgetary controls with inadequate financial, material and personnel resources, has low subject status and esteem, and is being marginalized and undervalued by authorities. At best it seems to occupy a tenuous place in school curriculum: in many countries, it is not accepted on par with academic subjects concerned with developing a child's intellect(Marshall & Hardman, 2000).

Njororai (1994) conceded that students pursuing PE programs at the university are regarded by their peers and community at large as dull and unintelligent. Quality of PE personnel is buttressed in the notion and practice that a PE teacher is a second-rate person. The number of PE teachers is far from being adequate in all the educational institutions in Kenya. Various forms of physical activity, facilities, apparatus, time, rules, and regulations as specified in the PE curriculum are adapted to suit the physically challenged learner. However, the main challenge in Kenya in this regard is an inadequate number of teachers to teach adapted PE, as only one institution trains such teachers and few teachers are trained per year; hence, the severe shortage.

The teaching of Physical Education (PE) faces challenges in most countries (Hardman, 2009). These challenges range from reduced curriculum time and a lack of adequately

prepared teachers, to the poor state of facilities and a negative perception from teachers, students and parents (Nyakweba, 2005). It is in the light of this background that the study was undertaken to the status of resources for teaching Physical Education in Thika East, Kiambu County.

1.2 Statement of the Problem

According to Hornet (2002), teachers of Physical Education have expressed concern over numerous problems which they face as they teach Physical Education. The author further notes Physical Education teachers lack confidence to teach the subject because they are inadequately trained. A common weakness in the teachers' revelation was that the majority did not pinpoint the specific problems they faced while teaching Physical Education.

The education system in Kenya puts more emphasis on the need for students to excel in examinations (Buhere, 2010). Consequently, subjects that are examinable tend to receive more attention in terms of teaching and provision of required resources. Unfortunately, Physical Education is not an examinable subject, and may only be given emphasis on the basis of an understanding of its inherent benefits to the learners. According to Marshall and Hardman (2000) Physical Education is suffering from decreasing curriculum time allocation, budgetary controls with inadequate financial, material and personnel resources, has low subject status and esteem, and is being evermore marginalized and undervalued by authorities. This study therefore aimed at

assessing the perception on status of available resources in ensuring effective teaching of Physical Education in secondary schools in Thika East, Kiambu County.

1.3 Purpose of the Study

The purpose of this study was to assess the status of resources for effective teaching of Physical Education in terms of their availability and sufficiency in secondary schools in Thika East, Kiambu County.

1.4 Objectives of the Study

The objectives of the study were:

- i. To determine the teachers' perception about adequacy of qualified Physical Education teachers in Thika East, Kiambu County.
- ii. To determine the teachers' and students' perceptions about the adequacy of time allocated for the teaching of Physical Education.
- iii. To compare the perceptions of Physical Education teachers and students about adequacy of Physical Education equipment in secondary schools in Thika East, Kiambu County.
- iv. To appraise the adequacy of Physical Education facilities offered by the schools in Thika East, Kiambu County.
- v. To determine whether adequate relevant textbooks and reference materials are made available for teaching Physical Education in Thika East, Kiambu County.

1.5 Hypotheses

The following null hypotheses were used to guide the study:

Ho₁ There would be no significant difference in the perceptions of PE teachers and students of the extent of adequacy of PE teachers in Thika East, Kiambu County

Ho₂ There would be no significant difference in students' perception about adequacy of time allocated for the teaching of Physical Education in secondary schools in Thika East, Kiambu County on the basis of their;

- i. Gender.
- ii. Class level.
- iii. Type of school.

Ho₃ There would be no significant difference between the perception of P.E teachers and students of the adequacy of the following:

- i) Physical Education equipment
- ii) Physical Education facilities.

1.6 Significance of the Study

Since Physical Education as a subject has been given prominence in the 8.4.4 system of education it is anticipated that the findings of the study yields useful information in the area of teaching and curriculum development that can influence policy modification and implementation on issues pertaining to Physical Education in Kenya's secondary schools. Such information would be specifically useful to the heads of schools and those responsible for policy matters such as school quality assistance officers for Physical Education in the Ministry of Education in ensuring Physical Education curriculum

implementation. The findings of the study can stimulate the establishment of physical facilities and teaching resources for Physical Education in new/upcoming schools and evaluate the same for the existing schools. It is hoped that this study will provoke and sensitize educators in taking note of the challenges facing Physical Education teachers who teach in secondary schools so that corrective and/or improvement measures may be undertaken. The study also contributes to the available literature on Physical Education programs in Kenya.

1.7. Limitations of the Study

The following limitations were encountered;

- i. 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 Thika East, Kiambu County.

1.8. Delimitations of the Study

The study was delimited to:

- i. Resources and facilities which relate directly to effective teaching/ learning process of Physical Education programs.
- ii. The use of direct contact questionnaire and observation check-list as tools for data collection.
- iii. Assessment of the status of teaching of Physical Education in secondary schools in Thika East, Kiambu County from the perception of the teachers and students.

1.9. Assumptions of the Study

This study was based on the following assumptions:

- i. That all the students in the secondary schools in Thika East, Kiambu County are taught Physical Education.
- ii. All the responses received were a true reflection of the status of Physical Education in secondary schools in Thika East, Kiambu County.

1.10 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 (Gershuny, 2002), 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 (Coakley, 1996). 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. Hornet (2000) 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.

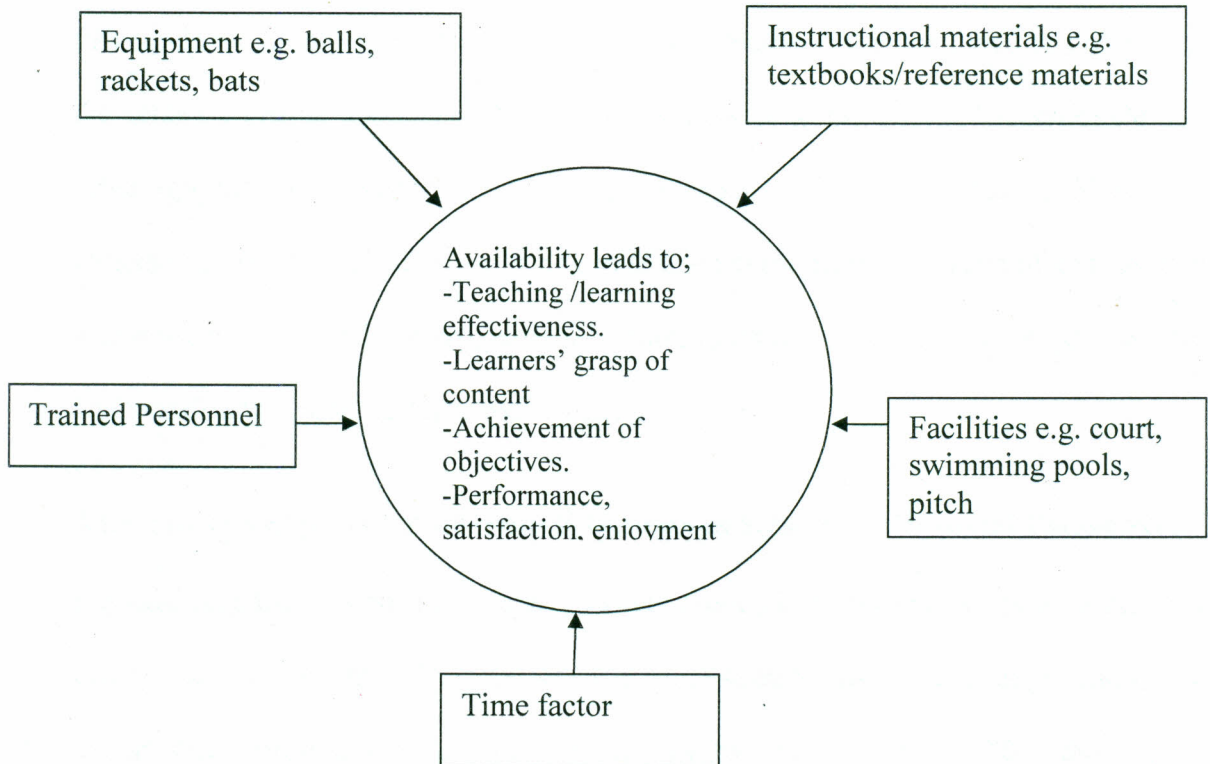


Figure 1.1: Resources for Teaching and Learning of Physical Education.

Source: Adapted from Gershuny (2002).

CHAPTER TWO: REVIEW OF LITERATURE

2.1 Introduction

Physical Education in Kenya's secondary schools is purely practical and is never taught theory class because it is not recognized as an examination subject (Wanyama, 2011). Principals are always expected to make students pass examinations well in order to lift the school's profile and since PE does not contribute to the schools' mean grade, it is often ignored as an academic subject (Wanyama, 2011). According to Sifuna and Otiende (2006), a lot of criticism has been labeled at the Kenyan system of education by a cross-section of the Kenyan public in relation to its relevance, financing, performance and workload on both students and teachers.

2.1.1 The Development of Physical Education in Kenya: A Historical Perspective

Physical and health education in Kenya has attained its current status as a result of many historical events. The historical events stretch from those experienced and undertaken before the colonization of Kenya by the British in 1895, through the subsequent colonial rule between 1920 and 1963, to the educational reviews and reforms undertaken in the postcolonial era. During the precolonial era in Kenya, the natives engaged in a wide range of traditional sports and games that were directly linked to their survival, defense, and way of life (Asembo, 2003). The most popular forms of sports and games of the indigenous communities included spear throwing, which was associated with hunting and the need for defense against aggressors; running, which was considered an essential skill in the hunting of edible wild animals; swimming as an activity, which was necessary in fishing and communication with other communities

that lived across large water masses; and wrestling among youth, which was useful in identifying the strong ones who could be depended upon to defend their communities. Song and various forms of dance were also common phenomena during special occasions and seasons (Rintaugu, Mwisukha, & Munayi, 2011) such as celebrations that were held to mark the birth of a child, rites of passage, death, bumper harvest of crops, and victory in war.

Modern formal education was introduced in Kenya during the British colonial rule between 1895 and 1963. During this period, the modern forms of sports and games were introduced in the country from Europe and the Western world, whereas the indigenous forms were discarded as they were branded as being primitive (Rintaugu *et al.*, 2011). The colonial government appointed several education commissions that emphasized the teaching of physical training and drill in elementary schools. The main objective of teaching physical training at that time was to develop the learners' character by instilling virtues of obedience, discipline, and submission to authority, which were important in entrenching the colonial rule. Soon after Kenya attained independence from colonial rule, the postcolonial government appointed several educational commissions to restructure the education system to serve the needs and interests of the indigenous people. The recommendations of the educational commissions had some direct influence on the teaching of PE in the country. Gitonga, Andanje, Wanderi, and Bailasha (2012) noted that amid various educational commissions and changes in the education system in Kenya, PE continues to be regarded as a subject that offers no opportunity for advancement both within and outside the formal education structure.

2.1.2. Status of Physical Education in Kenyan Schools

According to Mwaka, Wambua, Kadenyi and Kegode (2009), Physical Education in Kenya has a low status and PE teachers are often regarded as being of a lower status than other teachers who teach other subjects. Hardman (2009) reports that in Africa (Kenya was not included in the report), only 20% of countries indicate that PE has the same legal status as other subjects. The situation in Kenya resembles that in Ghana where PE is marginalized; its teachers do not enjoy the same respect as teachers of compulsory academic subjects (Ammah & Kwaw, 2005). Ammah and Kwaw (2005) further noted that the status of most PE teachers, particularly in the suburbs and villages, leaves much to be desired; they lack professionalism in the way they go about their job.

According to 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. During times of adverse weather 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 (Wanyama, 2011).

2.2 Resources for Teaching Physical Education

Some factors can be identified which can affect teaching of Physical Education. They include facilities, equipment, time, literature, trained teachers and administrative support given (Corbin, *et al*, 2004). Lack of adequate facilities and equipment are and still seem to be the main barriers according to teachers in the delivery of the Physical Education curriculum and also tends to be the most difficult barriers to overcome (Deenihan, 2007).

Many schools have no facilities and there are instances where general-purpose rooms have been provided but have been converted into classrooms because of the pressure for space to teach the non-Physical Education element of the curriculum (Houses of the Oireachtas Joint Committee on Education and Science, 2005). Given this situation, it is often difficult for the teachers to teach their Physical Education program with the Irish climate of uncertainty, especially gymnastics and dance, when they have no indoor facility. The researcher therefore, sought to analyze how the availability or non-availability of resources affected effective Physical Education teaching.

2.2.1 Physical Education Facilities

The Irish National Teachers' Organization {INTO}(2007) reported that when they asked the delegates (n=300) who attended their consultative conference on education in 2006 about their facilities for teaching Physical Education, 31.6% of the delegates did not have a hall, 11.8% did not have a suitably surfaced yard, 60.7% did not have a general purpose (GP) hall and 21.3% did not have a playing field. Principals in primary schools

in Irish surveyed by the Economic and Social Research Institute (ESRI) (Fahey *et al.*, 2005) were generally dissatisfied with the facilities for sport in their schools. Two thirds (n=137) indicated that they were not at all adequate but the findings suggested that principals were more concerned about indoor than outdoor facilities.

Darmody, Smyth and Doherty (2010) in their study examining school design and environments reported that many schools have access to outdoor space for the teaching of Physical Education but are restricted within their programs. Woods, Nelson and O’Gorman (2010) note that 81% (n=47) of primary principals reported not having access to an indoor multi-purpose hall for the purpose of teaching Physical Education, with almost one in every two (45%) principals noting that their Physical Education and sports facilities were not at all adequate. Compared with the rest of the world, Ireland is no worse off, with 37% of countries reporting dissatisfaction with the quality of their facilities and 50% indicating that the quality of provision facilities is “limited/insufficient” (Hardman & Marshall, 2009).

According to the Department of Education and Science Planning and Building Unit (2007) in Dublin, the provision of a General Purpose (GP) room catering primarily for the teaching and learning of Physical Education is considered within the design brief for new schools and or renovations/extensions to school building projects. The National Taskforce on Obesity (2005) in Ireland included among its recommendations that the Department of Education and Science should prioritize the provision and maintenance of Physical Education and physical activity facilities to address the issue of equity and

access in all schools. This echoes the reports by the ESRI (Fahey *et al.*, 2005) in Ireland which found that facilities, especially those in primary schools need to be improved, particularly those necessary to indoor activities.

Physical Education teachers face the challenge of teaching these large classes with minimal facilities and equipment. A class of 40 to 50 students would need a considerable investment in balls and other facilities to ensure that PE is taught adequately (Fisette, 2010). However, this depends on the financial resources at the disposal of the respective schools and the willingness of the headteacher to spend money on such equipment. According to the Kenya syllabus Kenya Institute of Education [KIE] (2005), students are supposed to be taught how to play sports like soccer, basketball, hockey, handball, netball, volleyball, rugby, lawn tennis, table tennis, badminton, cricket, baseball, softball, athletics, swimming, dance and tug-of-war (Kiganjo, Kamenju & Mwathi, 2003, 2004, 2005). These are to be introduced in form one and then taught each term as the student progresses.

2.2.2 Equipment for Physical Education

For Physical Education lessons to be effectively taught and learned there is need to provide all the necessary equipment. These include gameskits for students, balls, bats, racquets, nets and hockey sticks. It is up to the school administration to provide this. Daughtrey (1999) states that Physical Education requires a lot of apparatus and facilities. The variety and quantity determines also the quality of teaching some topics.

There is need to establish a link between what is available and what is taught. This may be a factor as some of the schools are newly established, in Thika East, Kiambu County.

Hardman and Marshall (2000) did a survey about the status of PE in African countries and 75% of schools in Africa were reported not to meet the legal policy requirements for PE. The gaps included poor curriculum policies, low curriculum time allocation for PE, low perceived importance of PE, poor attitudes towards PE by school administrators, parents, teachers, lack of formal monitoring control, diversion of resources for PE to other projects, insufficient financial and material resources, deficiencies in number of properly trained and qualified teachers.

2.2.3 Allocated Time for Teaching of Physical Education

Physical Education is reported to have a marginal status in many countries, and this can have an effect on the amount of time allocated to it in schools (Hardman & Marshall, 2009). Although Physical Education may be legislated for and be on the curriculum, in some countries, students are allowed to substitute other activities for required Physical Education, or are granted exemptions (Keay, 2011). Hardman and Marshall (2000) report show that the problem of time allocation is not only a Kenyan issue as in 50% of African countries studied, PE was reported not to have attained equal status with other subjects. Consequently, in 93% of the African countries, PE lessons were cancelled or replaced from the timetable by academic subjects such as English language and mathematics.

Time for planning and reflection is also crucial to effective teaching, and teachers need to ensure that they make the best use of time they have available to them. McGuinness and Shelley (1995) note suggestions that the Committee for Physical Education and Health Education recommend that not less than 10% of formal teaching time be allocated to the subject, which should make an important contribution towards promoting the physical well-being of the pupils in primary schools.

There is concern that the reality of the delivery of Physical Education in schools is less impressive and falls short of recommended standards (Fahey *et al.*, 2005). Recent research (Woods *et al.*, 2010) show that on average primary school children receive 46 minutes of Physical Education weekly. Average weekly time allocation for Physical Education across the European Union (EU) is 109 minutes (range of 30-240 minutes) with clusters around 60 and 90 minutes in primary schools (Hardman & Marshall, 2009). It can be seen from these recent studies that even with the implementation and recommendations of the curriculum as well as national in-service, children are not receiving recommended levels of Physical Education and fall far short of EU minutes at primary level.

The decline in time allocation throughout the years has been blamed on an ever-expanding curriculum. Teachers in Ireland, for instance, have to teach twelve subjects highlighting Hardman's (2008) findings that Physical Education is being squeezed out of the education system by more and more compulsory academic courses, which hold little benefit compared to PE. Despite national policy concerning required, prescribed,

recommended or aspirational guidelines, local levels of actual control of curriculum time allocation give rise to variations between schools and therefore, difficulties in specifying definitive figures.

PE research in the 1980s concentrated on Active Learning Time in Physical Education (ALT-PE) but recently, this has shifted to the more crucial issue of the overall amount of time available to PE (Green, 2008). Schools in many countries have gradually reduced PE time. Marshall and Hardman (2000) attribute this to lack of facilities, lack of teachers and the need to make time for other subjects. The situation is less encouraging in most African countries where there is either very little time allocated to PE or no time at all.

Adequate time should be allocated for the teaching of the subject. It should be noted that secondary schools in Kenya have one lesson of 40 minutes per week. Students' participation in Physical Education activities is dictated by availability of time (Cardes and Ibrahim, 1999; Torkildsen, 1996). The emerging problem of limited time in the modern world is perceived as a constraint to students' participation in leisure activities. In spite of the many benefits associated with leisure participation, the emerging problem of time in the modern world has been regarded as the most serious obstacle to leisure and Physical Education activities enjoyment (Gershuny, 2002). Majority of the schools in Kenya are mixed day schools, which implies that learners report in the morning and go back to their home in evening thus, reducing even more contact hours. The study determined whether this has any bearing on Physical Education.

According to Wanyama (2011), implementation of PE in Kenyan schools depends on the head teacher and the PE teacher. Head teachers are under pressure to produce good grades and because PE does not add any grades to the school's mean grade, it may receive lukewarm attention. However, this problem is not limited to Kenya only because Siedentop (1990) decries Western traditions of education, which consider the most important subjects as those affecting the mind alone.

2.2.4 Relevant Reference Materials

Scarcity of textbooks and other written material puts the teacher in an awkward situation. According to Howley (2007), the state of affairs regarding literature in the subject of Physical Education is very serious because while there are 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 people are tempted to shift to other subjects at the expense of Physical Education. In Kenya, most of the available literature is foreign and needs to be adjusted so as to fit the local situation.

Technology use in schools has influenced the way educators plan, design instruction, and assess their students. Innovations in educational technology have changed systems of communication, learning resources, lesson ideas, and professional development. Innovative technology facilitates creativity and learning productivity. Technology can consist of computer programs, Internet programs, or other assistive, digital and communicative tools. Classroom teachers have integrated these forms of technology

over time using a variety of methods through different styles and practices (Friedman, 2006; Judson, 2006).

An area in which technology has not become customary, yet has great potential, is in physical education. Although discipline-specific technology has been developed, generally, technology inclusion has not become commonplace in physical education due to limitations like lack of training, personal comfort levels, availability of equipment, and space and time (Martin, 2003). Physical educators can integrate technology through a variety of approaches. Preparing, generating, administering, and reporting information such as fitness scores, class participation, or motor skill rubric grades for both students and teachers are completed more efficiently (Posner, 2004).

In addition to normal everyday technology use, physical education programs can be structured based on the enhancement of content-specific technology. Physical educators can include the use of word processing and desktop publishing for items like newsletters, information packets or student portfolios. Teachers can utilize technology through fitness assessment databases, physical education department Web pages, content-based software programs, multi-media systems and visual presentations. Digital videos, exergaming equipment and other fitness-related devices may be incorporated into daily assignments and unit planning (Mohnsen, 2006). The nature of teaching and the organization of instructional materials can be further developed through the use of the Internet for increased communication, resources, and lesson ideas (Friedman, 2006).

2.2.5 Qualified Physical Education Teachers

Physical Education is a compulsory subject in Teacher Training Colleges (TTCs) for primary school teaching in Kenya. 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.

Certified PE specialists provide more and higher quality PE than classroom teachers (McKenzie *et al*, 2001). Thus, a California Department of Education Task Force recommends accredited PE teachers at all levels. Despite this recommendation, schools in California continue to assign classroom teachers, with no professional preparation in PE to teach an estimated 85 percent or more of elementary PE classes (California Department of Education, 2004). University students, majoring in K-12 education, are required to take few, if any, PE instruction courses during their training. According to Sallis *et al*. (1996), in 1994, more than 50 percent of California districts had no full time PE specialists teaching elementary school. Even when an elementary school had a PE specialist, he/she would usually be able to provide PE to students only once per week. A recent California study by Singh (2006) showed elementary schools with the lowest overall FITNESSGRAM scores did not have designated PE teachers or structured

classes, while the highest scoring schools had PE teachers, well-structured PE classes and complied with the required 200 minutes/two weeks of PE.

For PE teachers in Kenya to enhance their effectiveness in teaching, as well as be able to assess their learners' extent of success in executing various PE skills and the effect of the PE programs on their wellness, they must embrace modern technology. Indeed, Gibbone, Rukavina, and Silverman (2010) argued that technology use in schools immensely influences the way teachers plan, design instruction, and assess their students. Continuous innovations in educational technology will no doubt continue to have a positive bearing on systems of communication, learning resources, and preparation of PE teachers. However, the teaching of PE in Kenya has not significantly benefited from available technology due to the insufficient availability of the technology; the lack of training of PE teachers on their use and integration in teaching; and to some extent, the lack of interest.

2.3 Related Studies on Physical Education

Several problems that constrain the teaching of Physical Education at different levels of education have been reported. A study by Korri (1990) noted limited and/ or inadequate facilities, inadequate administrative support, and inadequate provision for individual differences, interest and abilities of students as some of the problems affecting teaching of Physical Education. Korri (1990) further evaluated implementation of Physical Education program in Dallas, USA, and found that unavailability of Physical Education equipment and facilities, lack of training by the Physical Education teachers, negative

attitude of some teachers contributed a lot towards the poor implementation of Physical Education.

Ross (1995), using an inquiry study found that major concerns were mostly large classes, working with limited facilities and equipment. He stressed the necessity of preparing future teachers to deal effectively with large classes. Scriven (1994) in a study commissioned by UNESCO to survey the existing knowledge of planning and designing of sports facilities in the developing countries observed that major problems facing Physical Education were lack of facilities. Scriven (1994) attributed the lack of facilities to shortage of funds to put up the facilities and buy equipment which adversely affected teaching of Physical Education.

Muniu (1986) identified problems such as lack of indoor facilities and lack of text books. On the aspect of length of Physical Education lesson, Singer (1991) observed that the traditional scheduling of Physical Education lesson does not cater for such important activities like changing into games attire which takes 10 minutes of each period and another 10 to 15 minutes of changing, showering and dressing at the conclusion of the activity. In a study of secondary schools in England and Wales, Kane (1994) found that those departments with offsite facilities spent up to 30% of Physical Education time journeying to and from the site. This is very relevant to some Kenyan situations where facilities are sometimes located very far. Kiganjo (1987) observed that classes were large and were characterized by a lack of adequate supply of textbooks. This needs to be investigated further in the secondary schools in Thika East, Kiambu County. It should be noted that majority of the schools are community-based and rely

on the government for their supplies. The money they charge may be inadequate to meet other needs for teaching Physical Education.

2.4 Summary of Reviewed Literature

From the above literature review, it can be observed that several studies have been carried out pertaining teaching of Physical Education. The findings of the studies reveal that different factors influence the teaching of Physical education in secondary schools. A study by Korri (1990) noted limited and/ or inadequate facilities, inadequate administrative support, and inadequate provision for individual differences, interest and abilities of students as some of the problems affecting teaching of Physical Education. Scriven (1994) in a study commissioned by UNESCO to survey the existing knowledge of planning and designing of sports facilities in the developing countries observed that major problems facing Physical Education were lack of facilities. According to Nyakweba (2005), the challenges facing teaching of Physical Education range from reduced curriculum time and a lack of adequately prepared teachers, to the poor state of facilities and a negative perception from teachers, students and parents. However, none of the studies has specifically evaluated the perception on the status of resources for teaching Physical Education. Unlike the aforementioned studies which focused on extra-curricular activities, the present study focused only on teaching of Physical Education in Kenya.

CHAPTER THREE: METHODOLOGY

3.1 Study Area

This study was conducted in secondary schools in Thika East Sub-County, Kiambu County in Central Kenya. Kiambu County is one of the 47 Counties located in Central Kenya. The county has twelve Sub-Counties including Thika East which is relatively a rural Sub-County with scattered urban centers(<http://www.kiambu.go.ke>). The area has large scale farming such as pineapples by Delmonte and Kakuzi companies. The area is also cosmopolitan with some settlement located in very remote areas like in Ithanga. The area has several secondary schools some of which are old, others newly established, community and government sponsored. See appendices for the list of the schools.

3.2 Research Design

The descriptive survey research design was used since the study sought to describe the current situation relating to resources for teaching P.E. in secondary schools. Coakley (1996) and Kaplan (1990) state that the aim of descriptive survey research is to objectively describe what is presently happening in a given situation. The design was deemed appropriate for the study as it sought information on the status of Physical Education resources in secondary schools in Thika East, Kiambu County.

3.3 Research Variables

In this study, the independent variables included Physical Education facilities; equipment for Physical Education, time allocated for P.E., relevant textbooks and

reference materials, qualified P.E. teachers, while the dependent variable was teaching of Physical Education.

3.4 Target Population

The population of this study comprised Physical Education teachers and students in secondary schools in Thika East. According to the Sub-County Education Office of Thika East (2014), there are 19 public secondary schools with 5216 students. The study specifically targeted form two and three students and P.E teachers. Form one students were excluded as they were very new in the school while form four students were also excluded as they were busy preparing for the final secondary school national examinations. According to the available data from the Sub-County Education Office (2014), form two (1266) and three (1250) totaling 2516 students. The sub-County has a total of 158 teachers (81 male and 77 female). All teachers teaching P.E were targeted who were 51 in total from all schools. Teachers teaching P.E were targeted as they were in a position to give information on matters pertaining to the subject including any problems that they encountered.

3.5 Sampling Procedures and Sample Size

All the 19 schools targeted in the study were included in the study but two were used for pre-testing of instruments and 17 were used in the actual study. The simple random sampling technique was used to select the students. This sampling technique was preferred as it gave equal chances for the students to participate in the study. A total of 40 students were sampled from each school constituting 20 from form two and another 20 students from form three. Sampling for the students was done according to

the number of streams per school where equal numbers of students were selected per stream. A total of 731 respondents were sampled (constituting 680 students (40 per school) and 51 P.E teachers). According to Gay (2003), 10% of the accessible population is adequate to serve as a study sample. Sampling 680 students formed 27% of the target population which was 2516 for form two and form three students in the schools studied while the sample of 51 teachers formed 32% of the targeted population which was 158.

3.6 Data Collection Instruments

The main instrument used for data collection was questionnaire (Appendix II). Two sets of questionnaires were developed for the study; one for the students and the other for the Physical Education teachers. They contained close-ended items where respondents were required to tick or circle the most appropriate answers. The questionnaires were divided into different sections where section A contained items on: the general information of the respondents, section B contained items on the adequacy of qualified P.E teachers, section C contained items on adequacy of time allocated for P.E, section D contained items on the adequacy of Physical Education facilities and section D contained items on availability of textbooks and reference materials for teaching P.E.

An observation checklist (Appendix III) was used to collect data on equipment and facilities used in teaching and learning of Physical Education. The checklist was used to observe P.E equipment and facilities in the schools studied.

3.7 Pre-Testing of Research Instruments.

Pre-testing of the questionnaire was conducted to determine its reliability and validity. Forty students and six Physical Education teachers who were randomly selected from two schools which were not included in the actual study were involved in the pre-testing. According to Mugenda and Mugenda (2003), validity is the degree to which results obtained from the analysis of data actually represent the phenomena under study. A valid instrument should accurately measure what it is supposed to measure. After administering the instruments to the selected respondents, the data obtained should be a true reflection of the variables under study. Opinion and comments from my supervisors were used to check on the content validity of the instruments.

The test re-test procedure for assessing reliability was used. After the administration of the instruments, a period of two weeks elapsed and the instruments were again administered to the same respondents. According to Orodho (2004), a correlation coefficient of about 0.8 is judged high enough for the instruments to be accepted as reliable for the study. The research got a correlation coefficient of 0.76 for the P.E teachers' questionnaires and 0.78 for students questionnaires. The researcher therefore considered the instruments reliable.

3.8 Data Collection Procedures.

The researcher obtained a research permit from National Commission for Science, Technology and Innovation (NACOSTI) allowing for data collection. The permit was used to get another letter from Thika East Sub-county Education Office (Appendix V) which allowed for collection of data from schools within the Sub-County. Distribution

of the instruments to the students and Physical Education teachers was carried out by the researcher with the help of two research assistants. On arrival at a particular secondary school, the researcher reported to the principal with a research permit allowing for data collection. The principal introduced the researcher to the staff where the class teachers helped in the distribution of the questionnaires during break time and also collected them after they were filled. In some instances to save on as the schools were scattered in a vast area, the researcher left behind the questionnaires with the class teachers and picked them latter. Since this was a self-report questionnaire, the research assistants were only required to briefly explain to the students and teachers the instructions and the importance of their participation in filling the questionnaire. The researcher did the overall supervision and monitoring of the data collection.

3.9 Data Analysis.

Primary data from the field was first edited. Coding was done to translate question responses into specific categories. Coding was expected to organize and reduce research data into manageable summaries. Statistical Package for Social Sciences (SPSS) was used to analyze the quantitative data. Descriptive statistics was used to calculate frequencies and percentages which were used to describe the data. The analyzed data was presented in form of tables, pie-charts and bar-graphs where applicable. The null hypotheses were tested using Chi-Square at 0.05 level of significance. Chi-square was used because variables were measured at nominal level.

3.10 Ethical and Logistical Considerations

The researcher sought a research permit from the National Council for Science, Technology and Innovation (NACOSTI) (Appendix V). The researcher visited the selected schools with letters of request /consent to the particular principals to carry out the study in their schools. It was made clear to all respondents that participation in the study was voluntary and all information given was treated with strict confidentiality. The nature and purpose of the study was fully disclosed to the subjects. Furthermore, the subjects were neither required to disclose their names nor be assigned any identification numbers.

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis, presentation and interpretation of the findings of the study. The purpose of this study was to assess the status of resources for teaching of Physical Education in secondary Schools in Thika East, Kiambu County. A total sample of 731 respondents was selected, and out of which 645 (constituting 600 students and 45 P.E teachers) responded giving a response rate of 88%. The findings of the study are presented in the subsequent sections.

4.2 Demographic Information of the Respondents

This section presents information on the respondents' gender, age, level of education, highest academic qualification, category of school, subjects of specialization, duration in teaching profession and duration of services as P.E. teacher.

4.2.1 Distribution of the Respondents by Gender

The respondents were asked to indicate their gender. The findings are presented in Table 4.1

Table 4.1: Distribution of the Respondents by Gender

Gender	Students		Teachers	
	Frequency	Percentage	Frequency	Percentage
Male	340	57	39	87
Female	260	43	6	13
Total	600	100	45	100

Table 4.1 show that 340 (57%) of the students were male while 260 (43%) were female. It was also found that 39 (87%) of the P.E teachers were male while 6(13%) were female. The respondents were also distributed in terms of age and this is presented in the next section.

4.2.2 Distribution of the Respondents by Age

In establishing the ages of the student respondents, they were asked to indicate their ages. The findings on the age are as presented in figure 4.1 below.

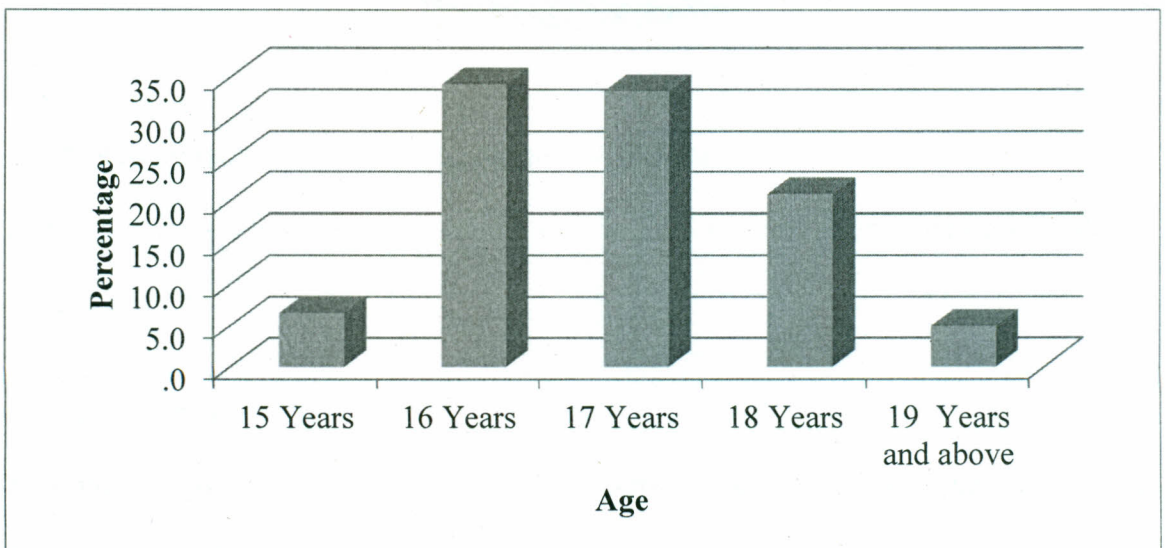


Figure 4.1: Distribution of the Respondents by Age

The findings on Figure 4.1 show that majority of the students, 205 (34.2%) were 16 years old and were followed by 200 (33.3%) who were 17 years old and 125 (20.8%) who were 18 years old. The respondents were further asked to mention their classes and the responses are presented in the next section.

4.2.3 Distribution of the Respondents by Class

In determining the classes to which the students belonged, they were asked to indicate their classes. The findings on the classes are as presented in Figure 4.2.

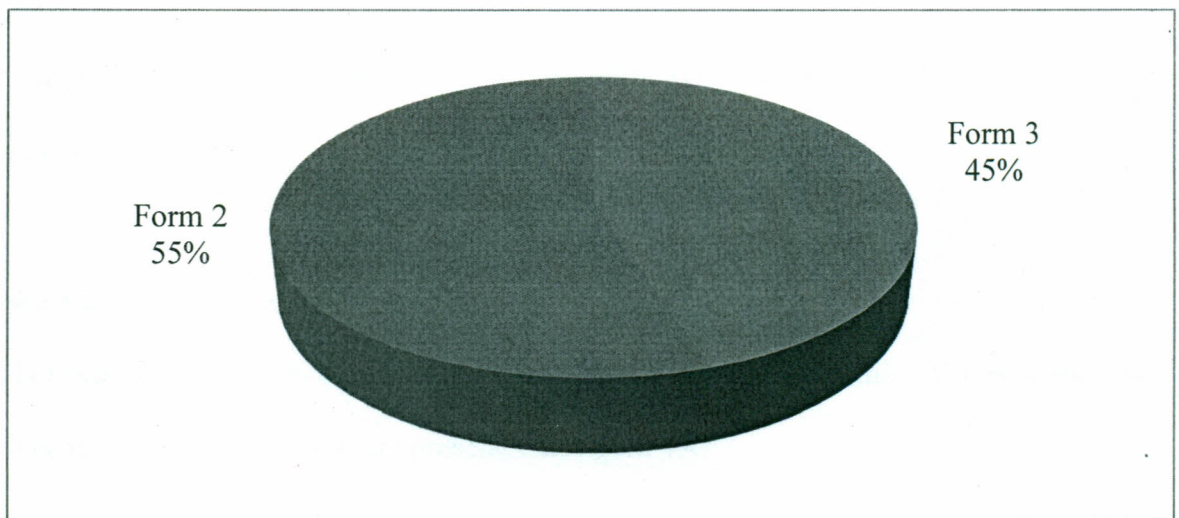


Figure 4.2: Distribution of the Respondents by Classes

Figure 4.2 show that 328 (55%) of the respondents were in form 2 while 272 (45%) were in form 3.

4.2.4 Distribution of Schools by Categories

To establish the categories of the schools, teacher respondents were asked to indicate the categories of their schools. The findings on the school categories are as presented in figure 4.3.

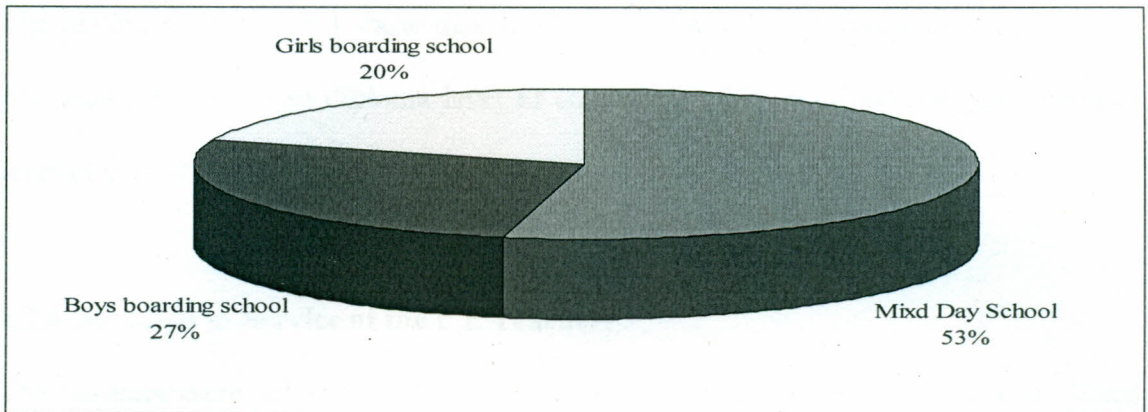


Figure 4.3: Distribution of schools by Categories

The results on Figure 4.3 show that 8 (53%) of the schools were mixed day schools, 4 (27%) were boys boarding and 3 (20%) were girls boarding.

4.2.5 Distribution of the Teachers by Level of Education

The teachers were asked to indicate their highest level of education. The results on the teachers level of education are presented in figure 4.4.

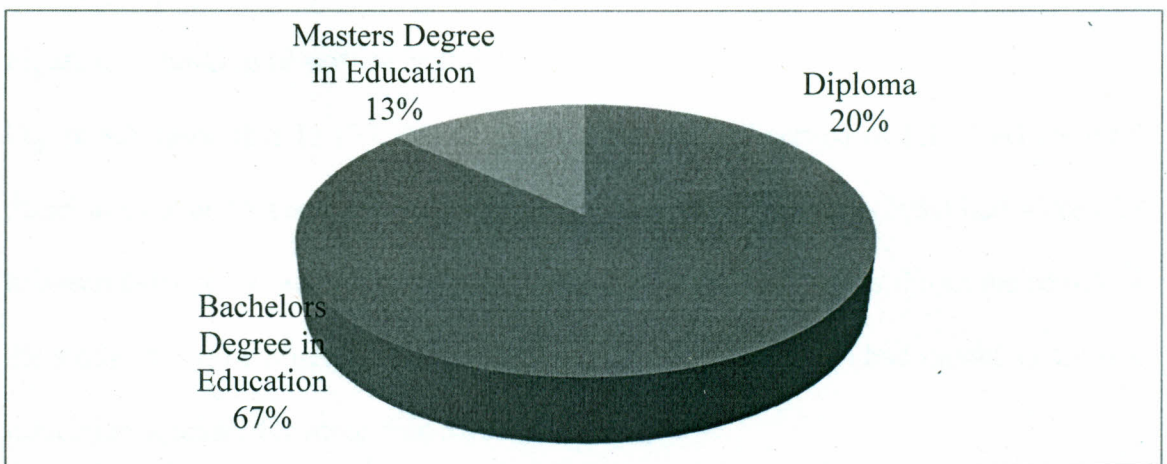


Figure 4.4: Distribution of the Respondents by their Level of Education

The results on Figure 4.4 show that 30 (67%) of the teachers had university level of education, 9 (20%) had diploma level of education, while 6 (13%) had post graduate level of education.

4.2.6 Duration of Service of the P.E Teachers

The teachers were asked to indicate their duration of service as P.E. teachers. These findings are presented in figure 4.5.

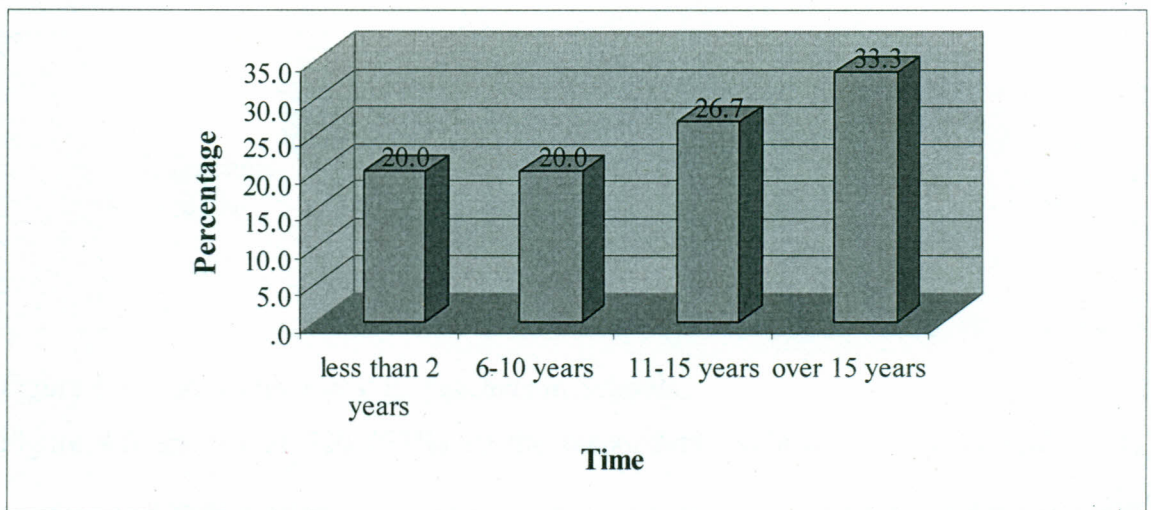


Figure 4.5 Duration of service as P.E Teachers

Figure 4.5 show that 15 (33.3%) of the respondents had served as P.E. teachers for a duration of over 15 years, 12 (26.7%) for between 11-15 years, 9 (20%) had served for between 6-10 years, while 9 (20%) had served for less than 2 years. From the results of the study, it can be observed that most of the respondents (80%) had taught as Physical Education teachers for more than 5 years.

4.3 Perception on Adequacy of Qualified P. E. Teachers

4.3.1 The Number of P.E. Teachers in Schools

In establishing the number of P.E teachers in the schools, the students were asked to indicate the number of P.E teachers in their schools. These results are presented in figure 4.6 below.

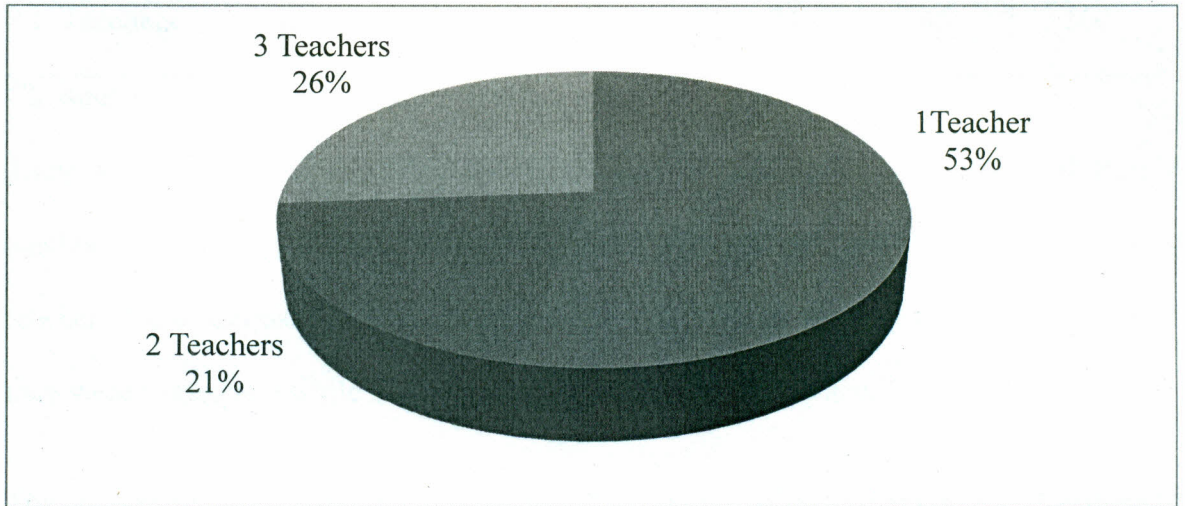


Figure 4.6: The Number of P.E. Teachers in Schools

Figure 4.6 show that 320 (53%) of the respondents indicated that they had 1 P.E teacher, 158 (26%) of the respondents indicated that they had 2 P.E teachers and 122 (20%) indicated that they had 3 P.E teachers. The study further sought to establish the adequacy of P.E teachers.

4.3.2 Adequacy of P.E Teachers

Teachers and learners were asked to indicate whether the number of P.E. teachers was adequate and the results are presented in Table 4.2.

Table 4.2: Adequacy in the Number of P.E. Teachers

Respondents	Responses				Total	
	Adequate		Inadequate			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Students	112	19	488	81	600	100
P.E Teachers	12	27	33	73	45	100

Chi-square=79.75, $df=1$, p value=.0001

Table 4.2 show that 488 (81%) of the students indicated that the number of P.E. teachers was inadequate while 112 (19%) of the students indicated the number of P.E. teachers were adequate. The study also found that 73% of the teachers indicated that they were inadequate while 27% indicated that they were adequate.

The chi-square test statistic $X^2(1, N=645) = 79.750, p = .0001$. The hypothesis that there would be no significant difference in the perception of students and teachers on extent of adequacy of P.E teachers in Thika East was therefore rejected. This means that there is a significant difference between students and teachers' perception on adequacy of P.E teachers. It is evident from Table 4.2 that a significantly larger number of the teachers indicated that P.E teachers were inadequate than the students.

4.3.3 Training of Physical Education Teachers

The teachers were asked to indicate whether they were trained to teach Physical Education. These results are presented in figure 4.7.

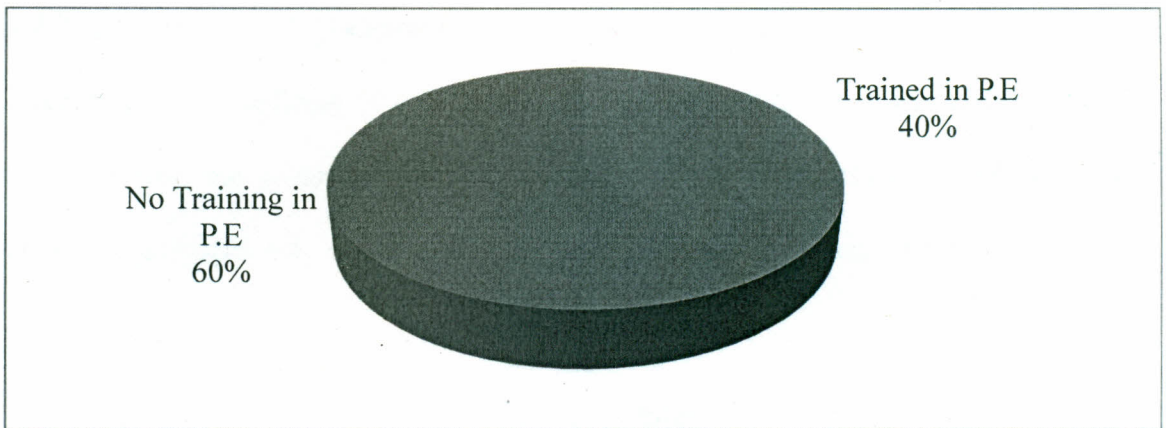


Figure 4.7: Training of Teachers in Physical Education Teachers

Figure 4.7 show that 60 % of the respondents indicated that they had been trained to teach Physical Education while 40 % of the respondents indicated that they had not been trained to teach the subject. The following sub section presents the results on adequacy of allocated time for P.E.

4.4 Adequacy of Time Allocated for P.E

4.4.1 Number of Lessons Allocated for P.E.

The students were asked to indicate the number of lessons allocated on the school timetable per week for P.E. The study found that all the respondents, 100%, indicated that P.E was allocated one lesson per week. The researcher, using an observation checklist also found out that form two and three had been allocated one lesson per week. The students were further asked to indicate whether they attend P.E lessons according to timetable and their responses are presented in section 4.4.2.

4.4.2 Attendance of P.E. Lessons according to the Timetable

Regarding the attendance of P.E lessons, the students were asked to indicate whether they attended the lessons according to the timetable. The results of the study are presented in Figure 4.8.

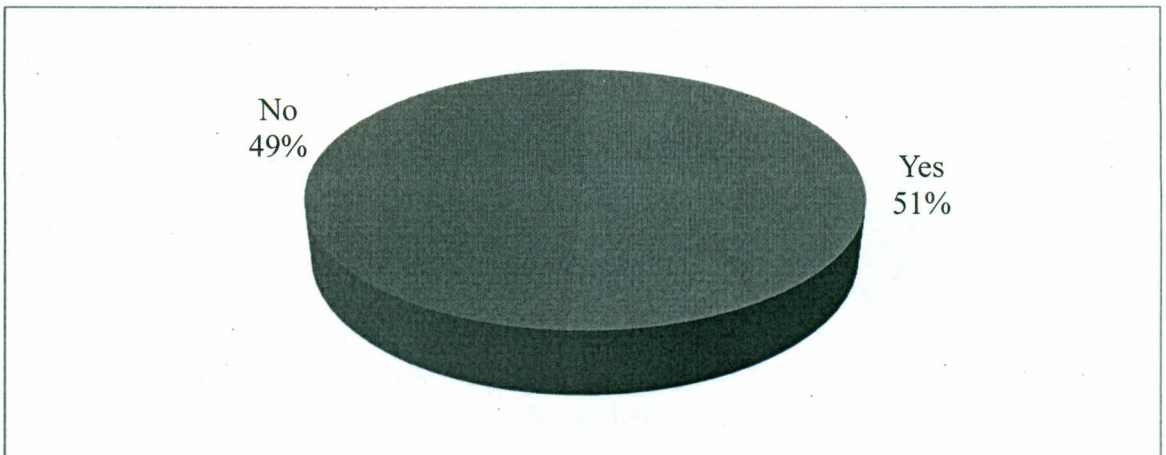


Figure 4.8: Attendance of P.E lessons according to the Timetable

Figure 4.8 show that 51 % of the students indicated that they attended the P.E lessons according to the timetable, while 49% of the students indicated that they did not. The students were further asked to explain their responses on attendance of P.E lessons. Those who indicated that they never attended the lessons according to the timetable mentioned lack of facilities like activity area and equipment. They also reported that at times, the teachers scheduled make-up lessons for other subjects during P.E lessons. Those who attended PE lessons regularly explained that even in the absence of the PE teacher, they still attended the P.E. lessons.

4.4.3 Adequacy of Time Allocated for P.E

Students were asked to indicate whether they considered the time allocated for P.E. of one lesson of 40minutes per weekwas adequate.The results are presented in Figure 4.9.

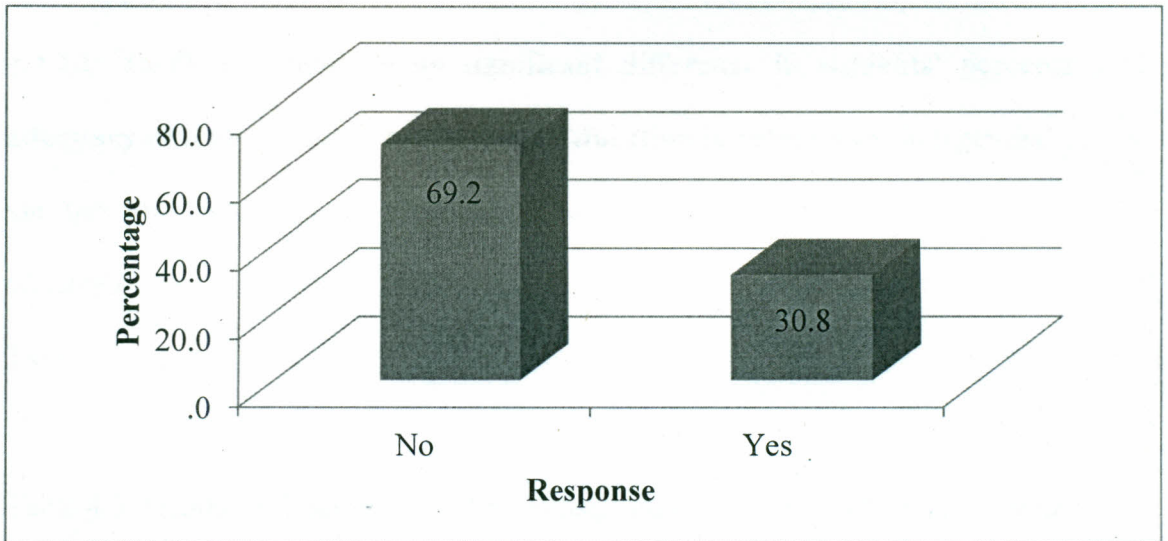


Figure 4.9: Adequacy of Time Allocated for P.E.

Figure 4.9 show that 69.2 % of the respondents indicated that they considered the time allocated for the teaching of P.E. to be inadequate, while 30.8 % of the respondents indicated that the time allocated for P.E. to be adequate. The students were further asked to explain their answers. Those who indicated that the allocated time was not adequate (69.2%) explained that more time should be allocated for P.E. because students spent the whole day in classes, take more time in changing into their PE gear and that only limited number of activities could be undertaken within the 40 minutes. Those who indicated that the time allocated was adequate (30.8%) explained that P.E is considered as any other academic disciplines hence, the time allocated for it was sufficient. From the observations made by the teachers, it was clear that the

students took more time for P.E lessons on changing into their games kits; this limited their time for taking part in Physical Education.

4.4.4 Hypothesis Testing

4.4.4.1 H_0 There would be no significant difference in students' perception of adequacy of time allocated for Physical Education in relation to their gender.

On the time allocated for Physical Education, the students indicated whether the allocated time was adequate or inadequate. The findings across gender are presented in Table 4.3.

Table 4.3: Gender of Learners and their Perception of Adequacy of Time Allocated for Physical Education

Gender	Time allocated for P.E.			X^2	<i>df</i>	<i>P-value</i>
	Adequate	Inadequate	Total			
	<i>n</i>	<i>n</i>		93.75	1	.0001
Male	195	65	260			
Female	220	120	340			
Total	415	185	600			

Table 4.3 show that 75% of the male students indicated that the time allocated for teaching P.E was adequate and 64.7% of the female respondents indicated that it was adequate.

The probability of the chi-square test statistic $X^2 (1, N=600) = 93.75, p = .0001$.

Hence, the hypothesis that there would be no significant difference in perception across

gender of the learners on adequacy of time allocated for Physical Education not accepted. This implies that there is a significant difference between male and female students' perception on adequacy of time allocated for Physical Education. It is evident from Table 4.3 that a much higher proportion of the male students considered the time allocated for taking PE as adequate, than the female students.

4.4.4.2 H_0 : There would be no significant difference in students' perception of adequacy of time allocated for Physical Education in relation to their class level.

The students in form 2 and 3 were asked to indicate whether the allocated time was adequate or inadequate. The findings are as presented in Table 4.4.

Table 4.4: Class Level of Learners and their Perception on Adequacy of Time Allocated for Physical Education

Form	Time allocated for P.E.			X^2	df	P -value
	Adequate	Inadequate	Total			
	f	f	Total	853.2150	1	.0001
Form 2	193	135	328			
Form 3	222	50	272			
Total	415	185	600			

Table 4.4 shows that 193 (58.8%) of form 2 students indicated that time allocated for P.E. was adequate while 222 (81.6%) of form three students indicated that it was adequate. The study also found that 41.2% of form 2 students indicated that time for P.E. was inadequate while 18.4% of form 3 students indicated that the time allocated was inadequate.

The probability of the chi-square test statistic $X^2(1, N=645) = 853.2150, p = .0001$. The hypothesis that there would be no significant difference in students' perception across

their class levels on adequacy of time allocated for Physical Education could not be accepted. This implies that there was a significant difference between students' class level and perception on adequacy of time allocated for Physical Education. More from two students considered the time allocated for P.E as inadequate as indicated by the form three students.

4.4.4.3 H_0 There would be no significant difference in students' perception about adequacy of time allocated for Physical Education in relation to their type of school.

Cross tabulation was done on the type of school for learners and adequacy of time allocated for P.E. The results are as presented in Table 4.5.

Table 4.5: Type of School for Learners and their Perception on Adequacy of Time Allocated for Physical Education

Type of School	Time allocated for P.E. to be adequate			X^2	df	P -value
	Adequate	Inadequate				
	f	f	Total			
Mixed School	340	140	480	81.650	2	.0001
Boys school	25	15	40			
Girls school	50	30	80			
Total	415	185	600			

Table 4.5 shows that 70.83% of the students from mixed schools indicated that the time allocated for teaching of P.E wasadequate, while62.5% from girls' schools and 62.5% from boys' schools indicated that they were adequate.

The probability of the chi-square test statistic $\chi^2 (1, N=645) = 81.650, p =0001$. The hypothesis that there would beno significant difference in perception of learners across their various types of school on adequacy of time allocated for Physical Educationcould not be accepted. This indicates that there is a significant difference in perception of learners from various types of schools on adequacy of time allocated for Physical Education. Significantly more learners from mixed schools perceived the time allocated as adequate than those in boys and girls schools.

4.5 Perception on Adequacy of Physical Education Equipment

4.5.1 Availability of Physical Education Equipment

The study sought to find out the extent of availability and adequacy of Physical Education equipment in the sampled schools.The findings emanating from the observation checklist are as presented in Table 4.6.

Table 4.6: Availability of Physical Education Equipment

Equipment	No. in all schools	Average No. per School
Games Kit (uniform)in set	675	45
Balls	90	6
Nets for Volleyball	54	3
Hockey sticks	150	10
Footwear (in pairs)	482	32

Table 4.6 shows that there was averagely 45 games kits, 6 balls, 3 nets for volleyball, 10 hockey sticks and 32 pairs of footwear per school. The averages were calculated from dividing the total number of items by the numbers of schools which were 15

4.5.2 Adequacy of Physical Education Equipment

Information was sought from the students and teachers on the adequacy of Physical Education equipment. The findings are presented in Table 4.7.

Table 4.7: Students' and Teachers' Perception on Adequacy of Various Physical Education Equipment

Equipment		Adequate		Inadequate		Total (%)		Chi-square	df	I Va
		f	%	f	%	f	%			
Games kits (uniform) – in set	Students	238	39.6	362	60.4	600	100	9.600	1	0.0
	Teachers	21	47	24	53	45	100	7.200	1	0.0
	Total	259	40.2	386	59.8	645	100	-	-	
Balls	Students	222	36.9	378	63.1	600	100	101.400	1	0.0
	Teachers	9	20	36	80	45	100	19.8328	1	0.0
	Total	231	35.8	414	64.2	645	100	-	-	
Nets for volleyball	Students	110	18.2	490	81.8	600	100	160.067	1	0.0
	Teachers	9	20	36	80	45	100	16.200	1	0.0
	Total	119	18.4	526	81.6	645	100	-	-	
Hockey sticks	Students	200	33.3	400	66.7	600	100	209.067	1	0.0
	Teachers	5	11	40	89	45	100	16.200	1	0.0
	Total	205	31.8	440	68.2	645	100	-	-	
Foot wear –in pairs	Students	220	36.7	380	63.3	600	100	15.000	1	0.0
	Teachers	1	2	44	98	45	100	14.400	1	0.0
	Total	221	34.3	424	65.7	645	100	-	-	

Table 4.7 shows that 81.8% of the students indicated that nets for volleyball were inadequate while 18.2% indicated that they were adequate. The study also found that 80% of the students indicated that nets for volleyball were inadequate while 20% indicated that they were adequate. From the findings of the study, it is clear that both students and teachers agreed that nets for volleyball were generally inadequate in their schools.

Regarding adequacy of hockey stick, 89% of teachers indicated that they were inadequate while 11% indicated that they were adequate. It was also found that 66.7% of students indicated that they were inadequate while 33.3% indicated that they were adequate. The findings thus revealed that hockey sticks were generally inadequate though teachers perceived them to be more inadequate compared to the students.

On the adequacy of foot wear, 98% of teachers indicated that they were inadequate while 2% indicated that they were adequate. The findings also revealed that 63.3% of the students indicated that foot wear were inadequate while 36.7% indicated that they were adequate. The findings thus revealed that foot wear were generally inadequate even though there was significant different in the perception of teachers and students on their adequacy.

The results further revealed that 80% of the teachers indicated that balls were inadequate while 20% indicated that they were adequate. The study also found that 63.1% of the students indicated that balls were inadequate while 36.9% indicated that

they were adequate. This was an indication that balls available in the schools studied were generally inadequate.

The results finally revealed that 53% of the teachers indicated that games kits were inadequate while 47% indicated that they were adequate. It was also found that 60.4% of the students indicated that games kits were inadequate while 39.6% indicated that they were adequate. From the findings of the study, it can be said that games kits were generally inadequate.

4.5.3 Hypothesis Testing on the Perceptions on Adequacy of Equipment

H₀ There would be no significant difference between the perception of P.E teachers and students of the adequacy of equipment for use in teaching Physical Education.

To determine whether the perception of teachers and students on adequacy of equipment differed significantly or not, chi-square test was computed. The hypothesis that there would be no significant difference between the perception of P.E teachers and students on the adequacy of Physical Education equipment is rejected (p Value=.0001).

This implies that there is significant difference between the perception of P.E teachers and students on the adequacy of Physical Education Equipment. Larger proportion of teachers indicated inadequacy of balls, hockey sticks and footwear than the students. On the other hand, significantly larger proportion of the students was of the perception that games kits and nets for volleyball than the teachers were inadequate.

4.6 Adequacy of Physical Education Facilities

With regards to the status of the Physical Education facilities, the researcher used observation checklist. The findings of the study were presented in Table 4.8.

Table 4.8: Availability and Adequacy of Physical Education Facilities

Equipment	Number
Football field	17
Netball court	16
Basketball court	8
Volleyball court	17
Handball court	9
Hockey field	1
Athletics track	16
Swimming pool	0

Table 4.8 shows that all of the schools had at least one football field and volleyball court. The findings also reveal that there was no secondary school with a swimming pool. Only one school did not have netball court and another did not have athletics track. Almost half of the schools studied did not have basketball courts while slightly more than half of the schools studied had handball court. It was finally found that only one school had a hockey field.

Table 4.9 Hypothesis Testing on Adequacy of Physical Education Facilities

H₀₃ There would be no significant difference between the Perception of P.E Teachers and Students on the Adequacy of the Physical Education Facilities.

Resources	Respondents	Adequate		Inadequate		Total (%)		Chi-square	df	p-Value
		f	%	f	%	f	%			
Football field	Students	375	62.7	225	37.3	600	100	150.417 ^a	1	0.000
	Teachers	9	20	36	80	45	100	9.800 ^a	1	0.000
	Total	384	59.3	261	40.5	645	100	-	-	-
Netball court	Students	350	58.5	250	41.5	600	100	9.600 ^a	1	0.002
	Teachers	9	20	36	80	45	100	9.800 ^a	1	0.000
	Total	359	55.7	286	44.3	645	100	-	-	-
Basketball court	Students	295	49.3	305	50.7	600	100	40.017 ^a	1	0.000
	Teachers	12	27	33	73	45	100	9.800 ^a	1	0.002
	Total	307	47.6	338	52.4	645	100	-	-	-
Volleyball court	Students	295	49.2	305	50.8	600	100	93.750 ^a	1	0.000
	Teachers	0	0	45	100	45	100	16.200 ^a	1	0.000
	Total	295	45.7	350	54.3	645	100	-	-	-
Handball court	Students	323	53.8	277	46.2	600	100	5.492 ^b	1	0.019
	Teachers	3	7	42	97	45	100	8.700 ^a	1	0.000
	Total	326	50.4	319	49.6	645	100	-	-	-
Hockey field	Students	0	0	600	100	600	100	212.817 ^a	1	0.000
	Teachers	9	20	36	80	45	100	7.500 ^a	1	0.000
	Total	9	1.4	636	98.6	645	100	-	-	-
Athletics track	Students	60	10	540	90	600	100	117.600 ^a	1	0.000
	Teachers	30	66.7	15	33.3	45	100	9.800 ^a	1	0.000
	Total	60	16.3	540	83.7	645	100	-	-	-
Swimming pool	Students	0	0	600	100	600	100	8.550 ^a	1	0.000
	Teachers	0	0	45	100	45	100	6.300 ^a	1	0.000
	Total	0	0	645	100	645	100	-	-	-

The findings on table 4.9 show that 98.6% of teachers indicated that there were inadequate hockey sticks while 1.4% of the students indicate that netball courts were inadequate. It was also found that 83.7% of the teachers indicated that they had inadequate athletics track while 16.3% of the students indicated that they were adequate. The findings further revealed that all the students (100%) indicated that

swimming pool were not available. It was also found that 54.3% indicated that volleyball courts were inadequate while 45.7% indicated that they were adequate. The hypothesis that there would be no significant difference between the perception of P.E teachers and students on the adequacy of Physical Education facilities is rejected. This means that there is significant difference between the perception of P.E teachers and students on the adequacy of Physical Education facilities. A significantly larger number of students than the teachers were of the view that football, netball and handball courts were adequate and vice versa. The grossly inadequate facilities included swimming pools, athletics tracks, hockey field and basketball courts, though the magnitude of responses on the extent of inadequacy differed significantly on inadequacy of volleyball courts, hockey fields and athletics tracks.

4.7 Availability of Textbooks and Reference Materials for Teaching Physical Education

4.7.1 Availability of Reference Materials

The students who were respondents in the study were asked to indicate the availability of reference materials for Physical Education. The findings of the study were presented in Figure 4.10.

Figure 4.10: Availability of Reference Materials

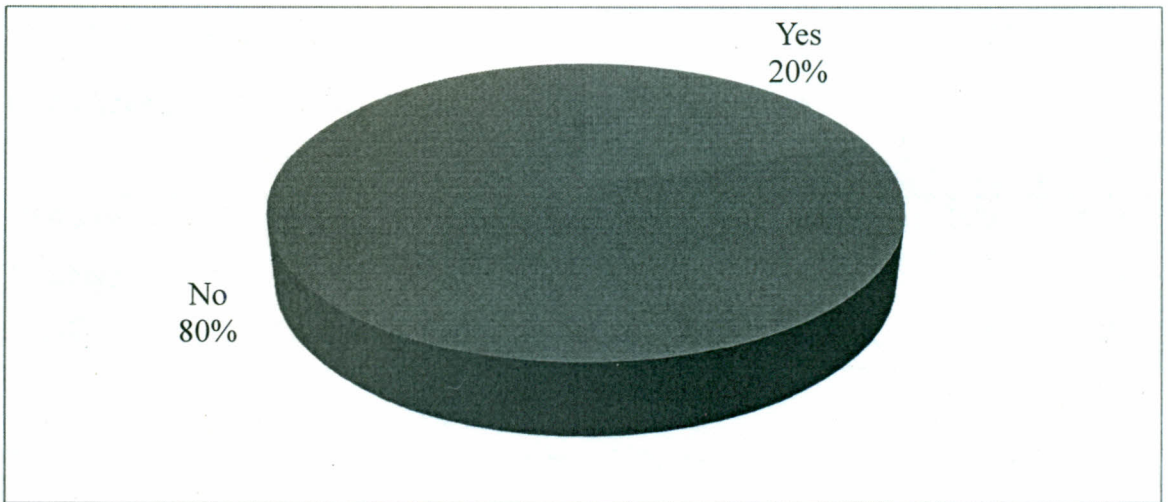


Figure 4.10 shows that most of the respondents 480 (80 %) indicated that there were no reference materials for teaching Physical Education, while 120 (20%) of the respondents indicated that there are reference materials for teaching the subject. From the findings of the study, it can be said that there are limited resources for teaching Physical Education since the majority of the respondents indicated their unavailability.

4.7.2 Adequacy of Reference Materials for Teaching P.E

The respondents were asked to indicate whether the available books and reference materials for Physical Education were adequate. The findings are as presented in Table

4.10

Table 4.10: Adequacy of Textbooks and Reference Materials for Teaching P.E

Respondents	Responses				Total	
	Adequate		Inadequate			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Students	10	1.7	590	98.3	600	100
Teachers	9	20	36	80	45	100
Total	19	2.9	626	97.1	645	100

The findings on Table 4.10 show that 80% of the teachers and 98.3% of the students indicated that text books and reference materials were inadequate.

4.8 Other Factors Affecting Teaching and Learning of Physical Education

Teachers and students were further asked to mention other factors affecting teaching and learning of Physical Education. The respondents' responses are presented in Table 4.11.

Table 4.11: Other Factors Affecting Teaching and Learning of Physical Education

Factor	Teachers		Students	
	<i>f</i>	%	<i>f</i>	%
Limitation of playing field	31	68.9	384	64
Negative attitude towards Physical Education	27	60	330	55
Few teachers are interested in teaching P.E.	10	22.2	180	30
Lack of changing rooms	42	93.3	570	95
Inadequate trained teachers	26	57.8	294	49
Lack of P.E facilities	40	88.9	498	83
Inadequacy of funds	35	77.8	426	71

The findings on Table 4.11 show that lack of changing room was a major factor affecting teaching and learning Physical Education as indicated by 42 (93.3%) of teachers and 570 (95%) of students. The study also found that lack of P.E facilities affected teaching learning Physical Education as indicated by 40 (88.9%) of the teachers and 498 (83%) of the students. The findings further revealed that limitation of the playing field affected teaching and learning of Physical Education as indicated by 31 (68.9%) of teachers and 384 (64%) of the students. Negative attitude towards Physical Education affected its teaching and learning as mentioned by 27 (60%) of the teachers and 330 (55%) of the students. The findings finally revealed that 10 (22.2%) of the teachers and 180 (30%) of the students mentioned that few numbers of teachers interested in P.E affected its teaching and learning.

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 objects.

5.2 Discussion of Findings

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

5.2.1 Perception on the Adequacy of Qualified Physical Education Teachers

About the adequacy of trained P.E teachers, the study found out that most of the secondary schools studied had one P.E teacher as indicated by 54% of the respondents. The study also found that 488 (81%) of the students indicated that the number of P.E. teachers were inadequate while 112 (19%) indicated the numbers of the teachers were adequate. Majority of the teachers indicated that there was inadequacy of P.E teachers in the schools than the students. In terms of training, it was revealed that, 60 % of the respondents indicated that they had been trained in Physical Education while 40 % of the respondents indicated that they had not been trained in Physical Education. Regarding their training, it was found that slightly more than half of P.E teachers in the schools studied have been trained.

The findings of this study are in line with the findings of a study by Hardman (2009) who found that many countries have generalized PE teachers in primary schools and specialist teachers in secondary school. According to Wamukoya (1985), many institutions in Kenya lack adequate trained Physical Education teachers. Those who teach the subject are graduates who never studied Physical Education at the university.

5.2.2 Perception on the Adequacy of Time Allocated for P.E.

Regarding the adequacy of time allocated for P.E, the study found that 69.2% of the students indicated that they consider the time allocated for the P.E. to be inadequate while 30.8 % indicated that the time allocated for P.E. to be adequate. However, a significantly higher number of male students considered the time allocated for P.E as adequate as the female ones. This implies that the female students would prefer the subject to be allocated more time than the male students. As such female students are perceived to take more time to change into their games kits compared to male students. Regarding the attendance of P.E lessons according to the timetable, the study found that 51 % of the respondents indicated that they attended the P.E lessons according to the timetable, 49% of the respondents indicated that they did not attend the P.E. lessons according to the timetable. On the aspect of length of Physical Education lesson, Singer (1991) observed that '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 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 other subjects. 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 is an indication of inadequate time allocation such that is it is given time within the lessons, it may interfere with other lessons.

5.2.3 Adequacy of Physical Education Equipment

Regarding the availability and adequacy of Physical Education equipment, the study found that there were inadequate Physical Education equipment in the schools studied. The findings of the study are supported by Daughtrey (1999) who found that Physical Education requires a lot of apparatus and facilities. The number of the equipments and facilities available also determines also the quality of teaching of some topics. From the findings of the study, it can be said that most of the secondary schools studied lack Physical Education equipment which adversely affect the teaching and learning of the subject in schools.

5.2.4 Adequacy of Physical Education Facilities

Regarding the availability of Physical Education facilities, the study found that all of the schools had at least one football field and volleyball court. This is due to limited space in the schools. The findings also revealed that there was no school that had a swimming pool. The situation may be informed by the costs involved in the construction and maintenance of the swimming pool. Only one school did not have netball court and

another did not have athletics track. Almost half of the schools that were studied did not have basketball courts while slightly more than half of the schools studied had handball court. It was finally found that only one school had hockey field.

According to the Kenyan syllabus (Kenya Institute of Education [KIE], 2005), students are supposed to be taught how to play sports like soccer, basketball, hockey, handball, netball, volleyball, rugby, Lawn tennis, table tennis, badminton, cricket, baseball, softball, athletics, swimming, dance and tug-of-war. These are to be introduced in form one and then taught each term as the students' progress. However, many public schools lack facilities like swimming pools and therefore, students are taught the basic and less costly sports like soccer and athletics (Kiganjo, Kamenju & Mwathi, 2005). The findings of this study are also supported by Scriven (1994) who attributed the lack of facilities to shortage of funds to put up the facilities and buy equipment which adversely affected teaching of Physical Education.

5.2.5 Availability of Reference Materials for teaching Physical Education

In terms of availability of text books and reference materials, the study found that most of the students (80%) indicated that there were no books and reference materials for teaching Physical Education, while 20% indicated that there are books and reference materials for teaching Physical Education. It was further revealed that even in schools where text books and reference materials were available, the materials were inadequate as indicated by teachers and students. The findings of this study are supported by Howley (2007) 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.

CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The purpose of this study was to analyze the status of resources for effective teaching of Physical Education in secondary Schools in Thika East, Kiambu County. The study was guided by the following objectives:

- To determine the teachers' and learners' perception about adequacy of professionally qualified Physical Education teachers in Thika East, Kiambu County.
- To determine the teachers' and students' perceptions about the adequacy of time allocated for the teaching of Physical Education.
- To compare the perceptions of Physical Education teachers and students about adequacy of Physical Education equipment in secondary schools in Thika East, Kiambu County.
- To appraise the adequacy of Physical Education facilities offered by the schools in Thika East, Kiambu County.
- To determine whether adequate relevant textbooks and reference materials are made available for teaching Physical Education in Thika East, Kiambu County.

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

6.2 Summary of Findings

In terms of the adequacy of professionally trained P.E teachers, the study found that there was only one P.E teacher in most of the schools studied as indicated by 54% of the respondents. The study also found that 81% of the students indicated that the numbers of P.E. teachers are inadequate. In terms of training, it was revealed that, 60% of the respondents indicated that they had been trained in Physical Education.

On the adequacy of time allocated for P.E, the study found that 69% of the respondents indicated that they consider the time allocated for the P.E. to be inadequate. Female students preferred that the subject be allocated more time than the male students. Regarding the attendance of P.E lessons according to the timetable, the study found that 51 % of the respondents indicated that they normally attend the P.E lessons according to the timetable.

In terms of the availability of and adequacy of Physical Education equipment, the study found that that there was an average of 45 games kits, 6 balls, 3 nets, 10 hockey sticks, 32 footwear and 2 athletics equipment in the schools studied.

Regarding the availability of Physical Education facilities, the study found that 89.6% of the respondents indicated that football fields were available, 81.3% indicated that volley ball courts were available, 60% indicated that netball field was available, 57.6% indicated that handball field was available, 15% of the respondents indicated that athletic tracks were available, while 2.9 % of the respondents indicated that hockey

court was available. However, the study found that all the respondents 100% indicated that swimming pools were not available.

In terms of the adequacy of physical facilities, the study further found, that all the respondents (100%) indicated that hockey courts were inadequate, 50.8% indicated that volleyball field to be inadequate, 50.7% indicated that basketball court to be inadequate, 46.2% indicated that handball field was inadequate, 41.5% indicated that netball court to be inadequate and 37.3% indicated that football field was inadequate.

Finally, on the availability of text books and reference materials, the study found that most of the respondents (80%) indicated that there are no books and reference materials for teaching Physical Education, while 20% of the respondents indicated that there are books and reference materials for teaching Physical Education. It was further revealed that even in schools where text books and reference materials were available; the materials were inadequate as indicated by the respondents. Other factors included limited limitation of playing field, negative attitude towards physical education and the fact that few teachers interested in teaching P.E.

6.3 Conclusions

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

- i) There are qualified P.E teachers in secondary schools in Thika East Sub-County even though they are inadequate.
- ii) The time allocated for teaching and learning P.E in secondary schools in Thika East Sub-County is inadequate.

- iii) There are Physical Education equipment in secondary schools in Thika East Sub-County are available however they are inadequate.
- iv) Facilities for Physical Education equipment in secondary schools in Thika East Sub-County are available however they are inadequate.
- v) Reference materials for teaching and learning P.E in secondary schools in Thika East Sub-County are inadequate.

6.4 Recommendations

The study recommended 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 Sciences and Technology (MOEST).

It was also recommended that there should be increased allocation of time for P.E depending on class levels (more lessons for lower classes). This would allow the students and teachers to have adequate time thus improving teaching and learning of the subject in the schools. This can be done by Ministry of Education Sciences and Technology (MOEST) in conjunction with Kenya Institutes of Curriculum Development (KICD).

The government through the Ministry of Education Science and Technology (MOEST) 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 of the required facilities for teaching and learning P.E.

Parents and community should contribute towards ensuring that the facilities and resources required for Physical education. This can be done through donations and fund raising aimed at buying the relevant facilities and equipment required.

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 courts can also be used for hand ball.

Schools should also share the available schools 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

6.5 Recommendations for Further Research

This study was carried out to assess the status of resources for teaching Physical Education in secondary schools Thika East Sub-County, Kiambu County. It is therefore recommended that another study be done on ways of improving teaching and learning of P.E secondary schools in this and other sub-counties.

The study also recommends that another study be done on the challenges facing teaching and learning of Physical Education in secondary schools in other Counties.

The study recommends that study be carried out to assess teachers' preparedness including their ability to improvise resources for the implementation of Physical Education curriculum in secondary schools in other Counties.

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APPENDICES**APPENDIX I:INTRODUCTION LETTER TO SCHOOLS**

Dear Student,

You have been randomly selected to participate in this study which is investigating: Status of Resources for Teaching Physical Education in Secondary School in Thika East Sub-County, Kiambu County, Kenya.

You are requested to fill the attached questionnaire. This is not a test; your answer will be kept confidential. Do not talk to anyone else about what answer you should give.

You should not put your name on your questionnaire.

Please answer all items in the questionnaire. If you make a mistake cross it out clearly and put in the right answer. The answers will be used for research purposes only.

Thank you in advance.

Yours sincerely,

MURIITHI D. WAMBUGU.

APPENDIX 11: QUESTIONNAIRE FOR SECONDARY SCHOOL STUDENTS

This questionnaire seeks to assess: Status of Resources For Teaching Physical Education in Secondary Schools in Thika East Sub-County, Kiambu County.

Please answer all items

SECTION A: GENERAL INFORMATION OF THE RESPONDENTS

1. Name of the school: _____

2. Age _____

3. Gender: Male Female

4. Form: _____

5. Indicate the category to which your school belongs

a) Mixed Day school b) Mixed Day Boarding school

c) Boys Day school d) Boys Boarding school

e) Girls Day School f) Girls Boarding school

SECTION B: LEARNERS' PERCEPTION ABOUT ADEQUACY OF PROFESSIONALLY QUALIFIED PHYSICAL EDUCATION TEACHERS

6. Are there P.E teachers in your school? Yes No

If yes, how many are they? _____

7. Would you consider the number of P.E teachers adequate in your school?

Yes No

SECTION C: PERCEPTION ON THE ADEQUACY OF TIME ALLOCATED FOR P.E

8. 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) _____

9. How long do the P.E lessons take (in minutes)? _____

Would you consider the time allocated for the P.E to be adequate?

Yes [] No []

Explain your answer? _____

SECTION D: PERCEPTIONS ON THE ADEQUACY OF TIME ALLOCATED FOR PHYSICAL EDUCATION

10. How many lessons do you have per week for P.E? _____

11. Do you normally attend all P.E lessons Yes [] No []

If no, please explain? _____

12. How long do the P.E lessons take? _____

13. Do you consider the time allocated for P.E lessons adequate Yes [] No []

Explain your answer? _____

SECTION E: PERCEPTION ON THE ADEQUACY OF PHYSICAL EDUCATION EQUIPMENT

14. The following are some of the Physical Education equipments. Please indicate their availability and adequacy in the table provided below.

Equipment	Availability		Adequacy	
	Available	Not available	Adequate	Inadequate
Games kits (uniform)				
Balls				
Nets				
Hockey sticks				
Any other (specify)				

SECTION F: ADEQUACY OF PHYSICAL EDUCATION FACILITIES

15. The following are some of the Physical Education facilities. Please indicate their availability and adequacy in the table provided below.

Facility	Availability		Adequacy	
	Available	Not available	Adequate	Inadequate
Football field				
Netball court				
Basketball court				
Volleyball court				
Handball court				
Hockey field				
Athletics track				
Swimming pool				
Any other (specify)				

AVAILABILITY OF TEXTBOOKS AND REFERENCE MATERIALS FOR TEACHING PHYSICAL EDUCATION

16. Are books and reference materials for Physical Education in your school adequate?

Yes [] No []

17. What are other factors affecting teaching and learning of Physical Education in your school? _____

Thank you for your time and cooperation

APPENDIX III: QUESTIONNAIRE FOR PHYSICAL EDUCATION TEACHERS

Introduction

The purpose of this questionnaire is to study: Status of Resources for Teaching Physical Education in Secondary Schools in Thika East Sub-County, Kiambu County.

I request your sincere co-operation in this task. Any data gathered will be treated with strict confidence.

Please answer all items in the questionnaire by selecting only one of the alternatives provided at the end of each statement.

They will include the following alternatives and their abbreviations:-

Strongly Agree (SA), Agree (A), Disagree (D), Undecided (UD) and Strongly Disagree (SD), put a tick on the abbreviation of the alternative you have selected.

SECTION A: BACKGROUND INFORMATION

1. Gender : Male Female

2. What is your highest academic qualification?

SI Diploma
 Bachelors Degree in Education Masters Degree in Education

Any other (specify) _____

3. Which subjects did you specialize in at College/University?

4. How long have you been in the teaching profession ?

less than two years 2-5 yrs 6-10 yrs
 11-15 yrs Over 15 years

SECTION E: ADEQUACY OF PHYSICAL EDUCATION FACILITIES

14. The following are some of the Physical Education facilities. Please indicate their availability and adequacy in the table provided below.

Facility	Adequacy	
	Adequate	Inadequate
Football field		
Netball court		
Basketball court		
Volleyball court		

SECTION F: AVAILABILITY OF TEXTBOOKS AND REFERENCE MATERIALS FOR TEACHING PHYSICAL EDUCATION

17. Are books and reference materials for Physical Education in your school adequate?

Yes [] No []

18. What are other factors affecting teaching and learning of Physical Education in your school? _____

Thank you for your time and cooperation

APPENDIX IV: OBSERVATION CHECKLIST

To be filled by the researcher while observing

Section A: General information

Name of school _____ Date: _____ Role of students _____

Section B:

S/NO.	Item observed	Number
1.	<p>Equipment:</p> <ul style="list-style-type: none"> i) Games kits(uniform)-in set ii) Balls iii) Nets for volleyball iv) Hockey sticks v) Foot wear- in pairs 	
2	<p>Facilities</p> <ul style="list-style-type: none"> i) Football field ii) Netball court iii) Basketball court iv) Volleyball court v) Handball court vi) Hockey field vii) Athletics track viii) Swimming pool ix) Any other. 	

APPENDIXV: RESEARCH PERMIT**MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
State Department of Education**

Telephone: 0202637320
deothikaeast12@gmail.com

When replying, please quote
Ref:

SUB-COUNTY EDUCATION OFFICE
THIKA EAST SUB-COUNTY
P.O BOX 5214 - 01002
MADARAKA – THIKA

28TH MARCH 2014

TO ALL
PRINCIPALS
SECONDARY SCHOOLS
THIKA EAST SUBCOUNTY

RE: DATA COLLECTION FOR RESEARCH

The bearer of this letter Mr. Muriithi Daniel Wambugu is a bonafide post graduate student of Kenyatta University.

He has the authority of National Commission for Science Technology & Innovation according to letter Ref. NACOSTI/P/14/6311/864 dated 4/3/2014 to capture data. Any assistance offered to him will be highly appreciated by this office


CHEGE A.N

FOR DISTRICT EDUCATION OFFICER
THIKA EAST



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

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When replying please quote

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

Ref. No.

Date:

4th March, 2014

NACOSTI/P/14/6311/864

Muriithi Daniel Wambugu
Kenyatta University
P.O.Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Resources for teaching physical education in secondary schools in Thika East Sub-County, Kiambu County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Kiambu County** for a period ending **31st December, 2016**.

You are advised to report to **the County Commissioner and the County Director of Education, Kiambu 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. M. K. RUSUTT, PhD, HSC.
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Kiambu County.

STAFFING AND ENROLMENT SUMMARY FOR THIKA EAST SECONDARY SCHOOLS

S/NO	C.B.E	SCHOOL NAME	TEACHERS ON DUTY			STUDENT ENROLMENT			NO OF OR	UNDERSTAFFED SUBJECTS OR OVERSTAFFED SUBJECTS
			M	F	TOTAL	M	F	TOTAL		
1		MAGOGONI SEC	7	10	17	181	190	371	2	HIST,GEO,CRE
2	10	MUNYU MIXED	5	8	14	212	152	364	3	ENG,CHEM,PHYSICS
3	8	MATUNDA SEC	4	3	7	258	225	483	5	KIS,CRE,MATHS,PHYSICS,HISTORY
4	8	DELMONTE	3	3	6	102	61	163	2	B STUDIES, HISTORY
5	9	MWANAWIKIO		2	2	100	93	193	7	KISW,BIOLOGY,MATHS,BS,GEO
6	27	GITITU	9	7	16	323	142	465	11	MATHS,CH:SM,GEO,,BS,COMPUTER,-H:ST,KISW
7	26	THANGA	14	6	20	161	256	417	6	KISW/GEO,PHY,CHEM,AGRI/BIC,MATHS/COMP
8	8	MUTI	3	2	5	143	100	243	4	MAT,KISW BIO
9	27	NGOLIBA	7	10	17	277	173	450	3	MATHS,PHYSICS,HIST/CRE,ENGLISH,(U)
10	19	MUNYU GIRLS	6	10	16		344	344	3	HIST,CRE,KISW,CHEM
11		ST. PAULS GATUANWAGA	6	12	18	446		446		
12	9	KOMO	3	1	4	61	52	113	3	CHEM,MATHS,BIO,PHYS,AGRI
13	5	MUGUMO	1	0	1	47	58	105	7	ENG,CHEM,PHYSICS,GEO,MATH-S,BIO,AGRI,BS,LIT
14	18	ST TERESA'S	7	1	8	234	200	434	2	ENGL,LIT,KISW,HISTORY
15		THUNGURU	1	0	1	42	39	81		ALL
16		GATUANWAGA MIXED								
17	14	NGELELYA	4	2	6	322	184	415	3	PHY,BIO,AGRI
		TOTALS	81	77	158	2908	2269	5087	61	

THIKA EAST SECONDARY SCHOOLS
THIKA EAST
05/11/2011
THIKA