# IMPACT OF OUTDOOR ACTIVITIES ON PRE-SCHOOL CHILDREN'S PHYSICAL SKILL DEVELOPMENT IN LANGATA SUB COUNTY, NAIROBI COUNTY, KENYA

**BY**

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## DECLARATION

I declare that this is my original work and has not been submitted to the University of Nairobi or any other university for examination.

Sign: ..... Date: .....

Opondi Lilian Akoth

This project has been submitted for examination with my approval as the university supervisor.

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## DEDICATION

This research project is dedicated to my husband Patrick L. Opondi and my children Symon, George and Greg for the moral support, prayers, encouragement and patience they accorded me during this study.

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## ABSTRACT

The purpose of this study was to determine the impact of outdoor activities on physical skill development of preschool children in Langata Sub County. According to Frost (2002), too many educators, politicians and parents, believe outdoor play takes time away from academic activities. As a result, outdoor activities in many preschools is limited or eliminated. Further, programs that do not advocate outdoor play often focus on learning cognitive and academic skills, rather than encouraging needed physical pursuits and social interactions. Major reasons for this problem are the adoption of academic standards by parents and even Ministry of Education on academic performance. The idea has left pre-school children unhealthy e.g. being obese or overweight because they don't get a chance to exercise and learn new skills through outdoor activities. The objectives of this study were: To examine how types of outdoor activities influence children's physical skill development, to examine how the provision of outdoor play facilities and equipments influence children's physical skill development, to establish whether the time provided for outdoor activities influences children's physical skill development and to determine how the role of teachers in outdoor activities influences children's physical skill development. The study used a sample of 12 head teachers, 24 teachers and 360 pre-scholars. The instruments used in this study were questionnaires, interview guide, and observation schedule and resource checklist. The schools with outdoor play facilities and equipment and exposed their children to the facilities had more children who had developed physical skills. Time provision for outdoor play is very important however if time is not adequate, the children would not master the physical skills. The schools that provided adequate time for children to perform tasks had their children develop physical skills. The role of teachers in outdoor activities influences children's physical development because the skills will need to be taught for the children to master and learn. The schools that provided different types of outdoor activities like directed and free play, had their children develop physical skills. The study concluded that there is need to take children for outdoor activities, then involve them in different types of play, provide play facilities and equipment, and the teacher to teach outdoor activities just like other activities in the timetable.

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| | | |
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| **GAO** | - | Government Accountability Office |
| **ECE** | - | Early Childhood Education |
| **CSO** | - | Curriculum Support Officer |
| **KICD** | - | Kenya Institute of Curriculum Development |
| **GPEK** | - | Guidelines for Preschool Education in Kenya |
| **MoEST** | - | Ministry of Education, Science and Technology |
| **FPE** | - | Free Primary Education |

# CHAPTER ONE

# INTRODUCTION

## 1.1 Introduction

This chapter consists of several sub items which include: background to the study, statement of the problem, purpose of the study, objectives, research questions, significance of the study, limitations to the study, delimitations, and assumptions of the study and definitions of key terms.

## 1.2 Background of the study

To ensure that children grow to their full potential, they should be provided with opportunity for play and especially outdoor activities. According to Fordyce and Kirbyik (1999), regular physical activity improves functional status and limits disability during the middle and later adult years. Physical activity contributes to quality of life, psychological health and the ability to meet physical work demands. Physical education can serve as a vehicle for helping children to develop the knowledge, attitudes, motor skills, behavioral skills and confidence needed to adopt and maintain physically active lifestyle.

While many parents in competitive western technological societies are anxious to start their children on the road to academic success as early as possible, the foundations of that success are rooted in the physical competence in the world. Yes, a child learns more in the first three years of life, than it will during all its years in elementary school, but that life is literally a “child’s play” in seeking to maximize the potential of the first three years, adults must remember the development needs of children. Physical development is vital for children and it lays the foundation for a healthy and active life. When it comes to

children, the best physical activity is play! Outdoor active play experiences are important for a child's development and should always be supervised by a teacher or a care giver. Theorists stated that large muscle activity through play is not a luxury rather it is a necessity for young developing children (Bowers, 1988).

In a time when electronic technology influences children to be ever more sedentary in their free time, the importance of active play should be increasingly high lightened. The skin fold thickness among preschoolers has increased significantly since the 1960's (Bowers 1988). Children need vigorous physical activity in which they can move and gain mastery. This implies that as far as technology has evolved vigorously, it has impacted the preschool children development negatively as they have become more dormant. Such dormancy has many health defects like overweight/obesity and bad habits.

Physical play mostly occurs outside and provides children opportunity to release their energy using vigorous activity and loud voice. The North Carolina Childcare Health and Safety Resource Centre noted that all children, birth to age five as well as school age, should engage in daily physical activities that promote health-related fitness and movement skills (Abbort & Rodger, 1994).

Most children naturally develop the ability to run and walk. However, they require practice and instruction to develop hopping, galloping, sliding, catching, jumping, throwing, kicking bouncing, and sticking skills. Children incorporate these skills into sports, games, and dance. Playgrounds are perfect places for a child to develop mental connections, socialize, and develop fine and gross motor skills. Regular physical activities are important parts of lives of most children in many ways, including helping

build and maintain healthy bones, muscles and joints, helping control weight and reduce fats and preventing or delaying the development of high blood pressure (Calbom, 2012).

According to Perkins, Jacobs, Barber and Eccles, (2004), childhood sports participation is a significant predictor of young adults' participation in sports and physical fitness activities. Physical activities are associated with improved academic achievement, including grades and standardized test scores. Further, such activities can affect cognition skills, attitudes and academic behavior, including enhanced concentration, attention and improved classroom behavior (Calbom, 2012).

According to Meier (2012), a number of studies provide support for the premise that physical activity and sports in particular can positively affect aspects of personal development among young children such as self-esteem and leadership. However, evidence indicates that availability of outdoor equipments and extensive exposure are key factors in maximizing positive effects on physical skill development of children.

Kuo, Liao, Chen, Hsieh, and Hwang (2008) examined the relationship between motor development and the amount of time infants spend on their stomachs (the *prone* position) during play. They also compared developmental differences between infants who appeared to prefer this prone position and those who did not. In addition, they studied the specific motor skills that appear to be most affected by prone play positioning. The researchers found that the greater the amount of time infants spent in prone position, the more advanced were their motor abilities. It was concluded that prone positioning is most important in periods of development when prone-specific abilities are learned—between the ages of 4 and 12 months. Pin, Eldridge, and Galea (2007) conducted a systematic

review of research on home infant care practices, including play and sleep positions and the use of infant motor equipment, such as walkers. It was concluded that babies who spent less time in a prone position during play and other waking periods of the day show a delay in motor skill development. Babies who are positioned in motor equipment, such as walkers, are also somewhat delayed.

Casby (2003) recommends that teachers, caregivers, and parents should carefully observe the types of play children engage in at varying ages and should adapt activities and interactions to meet their specific developmental needs. This is especially important for those working with children with special needs. The researcher shows that play is an authentic, enjoyable context in which to administer interventions to promote development in any domain. Payne and Isaacs (2008) provide one of the best summaries available of the development of two major categories of motor ability in young children: locomotion skills and object control skills. The researchers observed that teachers, caregivers, and parents should understand young children's progression through each stage of skill acquisition, for both motor skills and object control skills. Such an understanding will allow them to observe and assess children's motor development and guide future learning. Only with a clear knowledge of how children acquire these abilities, can adults create a developmentally appropriate environment for motor learning.

Williams (2008) developed and tested an observation system, The Activity and Movement in Preschool Motor Skills Protocol, to measure the motor development of children from three to five years of age. The researchers concluded that this was as useful a measure of preschool children's motor development as commonly-used tests, but with the added benefit of allowing assessment of children in a more authentic play setting.

Trawick-Smith, Robert, and Gruenberg (2010) added that this instrument was useful for teachers, caregivers, and special education professionals because it can be administered in a naturalistic free play setting. Adults are able to assess young children's competence as they engage in real-life play on the playground. In addition, the instrument provides a useful listing of the critical motor skills that should be acquired by preschool children. Teachers and caregivers can use this tool as a guide for setting motor development goals for their students. The observation system describes in detail both the locomotor skills: running, jumping, galloping, and leaping; and the object control skills: throwing, rolling, catching, kicking, and striking; that are important for children to acquire in preschool.

Kombo and Khalayi (2011) posit that, there is a growing concern among Kenyan pre-school education practitioners on the current approach to ECE that emphasizes the academic component at the expense of other areas of child development. Over emphasis on cognitive development observed, goes against child development research findings that define quality and relevance of ECE to be, that which caters for total development of the child.

Mahindu (2011) carried out a study on the influence of play on the development of preschool children's social skills in Kabete Zone, Kenya. The study revealed that availability of play materials influenced children's social skills development. However, majority of the teachers allocated 30 minutes for children play in the timetable which was deemed inadequate for children play. Findings also revealed that grouping of children into age and ability assisted them acquire social skills. According to a study by Ojuondo (2015) on aspects of play that contributed towards the development of language skills in Kisumu Central Sub County and that examined types of play, availability of play

materials, role of the teacher during play and school policy on play as elements of play that influenced language skill development, the researcher found out that learners who were exposed to different types of play like manipulative, creative, dramatic and physical plays with play materials achieved higher scores because the children acquired listening, speaking, reading and writing skills during interaction with teachers who played active roles to instruct and direct play than those who were not exposed to any form of plays.

In Kenya, the Ministry of Education syllabus for preschool, places emphasis on the use of play and play materials by teachers during teaching and learning process (KICD, 2008). The schools should ensure that there is equal opportunity for girls, boys, and children with special needs in all aspects of play. However, there is a lot of rote learning with more emphasis on academic achievement depriving the learner time to play. Evidence is seen in schools that have perfected teaching over the weekends even to pre-schools yet what is done is within the confines of classrooms (Ojuondo, 2015).

### 1.3 Statement of the problem

The health benefits of physical activity extend well beyond physical health, having a positive impact on the domains of motor skills, psychological well-being, cognitive development, social competence and emotional maturity (Cardon, Van Cauwenberghe, & de Bourdeaudhuij, 2011; Cliff & Janssen, 2011; Jones & Okely, 2011; Hinkley & Salmon, 2011; Okely & Jones, 2011; Reilly, 2011; Trost, 2011). Hinkley and Salmon (2011) observes that until recently, it was generally assumed that young children were naturally physically active. In the last 10 years or so, it has become evident that many young children do not participate in sufficient physical activity. According to the Canadian National Longitudinal Survey of Children and Youth (NLSCY), only 36% of 2

to 3-year-olds and 44% of 4 to 5-year-olds engage in unorganized sport and physical activity each week (Tremblay, Brownrigg & Deans, 2008).

Although there is a strong consensus that more physical activity is better, there is insufficient evidence of the precise "dose" or amount and intensity of physical activity required for optimal development in early childhood (Cliff & Janssen, 2011). Hinkley and Salmon (2011), posit that difficulties in accurately measuring the unique physical activity patterns of young children come in part from the fact that young children spend their time in a range of different settings (home, childcare with trained or untrained staff, preschool with varying programs, etc.) and that self-reports are inappropriate at this age.

Most establishments from Langata Sub-County receive children in schools who have lived sedentary lives. They are ever glued to the television, enthusiastically playing video games and focusing on computer screens. This situation is becoming more and more typical in the lives of Kenyan urban children. The children come from homes without a playground and equipment for playing. Preschool education prepares children physically ready for formal education through provision of numerous informal play experiences (GPEK, 1984).

According to Frost (2002), too many educators, politicians and parents, believe outdoor play takes time away from academic activities. As a result, physical education in many schools is limited or totally eliminated. Further, programs that do not advocate outdoor play often focus on learning cognitive and academic skills, rather than encouraging needed physical pursuits and social interactions. Major reasons for this problem are the adoption of academic standards by parents and even ministry of education on academic

performance. The idea has left preschool children unhealthy for example being obese or overweight because they don't get a chance to exercise through outdoor activities. Lack of outdoor activities also leads children not to develop the physical skills, which in turn leads to unhealthy children, who lack coordination, balancing and performing tasks in their daily lives. The study, therefore investigated the impact of outdoor activities on physical skill development of preschool children in Langata Sub County.

### 1.4 Purpose of the study

The purpose of this study was to determine the impact of outdoor activities on physical skill development of preschool children in Langata Sub County.

### 1.5 Research Objectives

The following were the specific objectives of the study:

i) To examine how types of outdoor activities influence children's physical skill development in Langata Sub-County.

ii) To examine how the provision of outdoor play facilities and equipments influence children's physical skill development in Langata Sub-County.

iii) To establish whether the time provided for outdoor activities influences children's physical skill development in Langata Sub-County.

iv) To determine how the role teachers in outdoor activities influences Children's physical skill development in Langata Sub-County.

## 1.6 Research Questions

The research questions that guided the study were:

i) How do types of outdoor activities influence children's physical skill development in Langata Sub County?
ii) Does provision of outdoor play facilities and equipment influence children's physical skill development in Langata Sub County?
iii) How does the time provided for outdoor activity influence children's physical skill development in Langata Sub-County?
iv) Does the role of teachers in outdoor activities influence children's physical skill development in Langata Sub-County?

## 1.7 Significance of the study

The first and foremost underlying justification for undertaking this study is that it will be significant to preschool teachers and scholars. The research will act as a basis for further study in the area of outdoor activities and physical skill development of pre-schoolers in Kenya. Scholars will have the opportunity to confirm or build on the findings of this research.

The findings of this study will be significant to the ministry of education in that, the ministry will be able to know the importance of outdoor activities in the curriculum. It will also be significant to the policy planners since they will incorporate outdoor activities in the preschool curriculum. The study will also be significant to education administrators since it will assist them in implementing the curriculum for outdoor activities. The study is also important for teachers and parents since it will help them to

implement the curriculum for outdoor activities while at school and home respectively. It will also help institutions to point out important and interesting outdoor activities that can motivate preschool children to participate.

### 1.8 Limitations of the study

The study used ex-post facto design, which is a kind of research structure where the study establishes the relationship between the dependent and independent variables retrospectively. This means that the study was unable to control the independent variables of time allocated for outdoor activities, types of outdoor activities, play facilities and equipment and the role of teachers in physical skill development. The study lent itself to a self-selection form of sampling procedure for the study sample, hence the study has no control due to inability to randomize.

The third limitation is that the study had no control of children's play at home and children's individual physical competence.

### 1.9 Delimitations of the study

The study was carried out in Nairobi County, Langata Sub-County only. The study was limited to 6 public and 6 private pre-schools in Langata Sub-County. The respondents for the study included head teachers, preschool teachers and preschool children. The study focused on outdoor activities and some physical skill development that included walking, running, throwing, catching, and grasping. The study used questionnaires, interview schedule, and observation schedule and resource checklist to collect data from the respondents. The findings of the study cannot be generalized to other parts of the country unless in areas with similar characteristics.

### 1.10 Assumptions of the study

The assumptions of this study were that all preschools, public and private, provided outdoor activities at school. What was different was the approach and the degree of implementation of play in daily learning activities. It was also assumed that preschools attached to public primary schools did not benefit from play facilities and equipment funded by FPE policy. This was because the FPE policy did not cover preschool education. The study also assumed that the participation in outdoor activities influenced the physical skill development of preschool children.

### 1.11 Definition of key terms

**Preschoolers**: Children between 3 and 6 years who attend pre-primary education

**Preschools**: Learning institutions for children between 3 an d 6 years

**Outdoor Activities**: Activities done in open air i.e. out of the house or class

**Physical skill development**: Physical growth in the ability of children to use their bodies and physical skills for example, walking, running and kicking.

**Activities**: A form of supervised action, as in education or recreation

**Attitude**: A state of feeling or mind about a person or situation

**Equipment**: Apparatus or materials for a specific function or task

**Skill**: Proficiency or ability expertise technique especially one requiring use of hands or body

**Physical education**: Instruction in the development, care and exercise of human body, including sports and hygiene

**Influence**: Have the capacity to affect the development of physical activities of preschoolers.

**Impact**: To have an effect on; to influence; to alter.

### 1.12 Organization of the study

This study has been organized in five chapters. The first chapter explores the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, study assumptions, definitions of the key terms and organization of the study. Chapter two gives the literature review, theoretical framework and the conceptual framework. Further, chapter three puts down the research methodology. The fourth chapter gives the findings of the study, presentation and analysis while the last chapter summarizes, concludes and gives recommendations for the study.

# CHAPTER TWO

# REVIEW OF RELATED LITERATURE

## 2.1 Introduction

This section looks at types of outdoor activities, provision of play facilities and equipment, the role of teachers and time provision for outdoor activities and physical skill development. The conceptual and theoretical aspects of outdoor activities of preschoolers in relation to physical skill development are also presented.

## 2.2 Types of outdoor activities and physical skill development

According to preschool curriculum, childcare centers and preschools need to provide safe, supervised yet unstructured outdoor play spaces for active play, where children and their peers can engage in physical activity of their own design. This will increase physical activity levels and promote imagination, social interaction and the ability to learn and practice skills independently (K.I.E, 2010).

Unstructured outdoor physical activity is important for children's development, and an essential component of getting kids to be more active. Recommendations indicate that at least half of the outdoor physical activity accumulated by young children should be in active play. Specifically, preschool children aged 1 to 5 should get from one to several hours of daily, unstructured physical activity. Activities such as running and climbing serve not only to develop their muscles, strength, endurance and general movement skills, but are also beneficial for their physical skill development like jumping, balancing, kicking, throwing and catching (Calbom, 2012).

Children play in different ways at different times and the nature of their play changes as they develop. Back in 1930s Mildred Parten observed children play and from her observations, identified four categories of play (Faulkner, 1995). Parten also found that there was a developmental sequence of her play categories, the younger the children being more likely to become involved in the third and fourth types. Although other theorists have made their own analyses of play, Parten's categories are still used and provide an elementary structure that can help us analyze play.

First comes solitary play, where a child plays on his/her own without taking notice of or taking part in the play of others who may be around her/him. For example, a child riding his/her bicycle around the playground, absorbed in the riding and not interacting with other children. Parallel play is next, where a child plays alongside other children, perhaps using the same toys, but is involved in his/her own play rather than taking notice of what other children are doing. In this case, children may be using the same equipment, but they are each absorbed in their own chosen activity. Associative play is the third category where children play associatively with other children. In associative play, each child acts according to his/her play agenda; they do not share a common play framework or negotiate common rules for play. Cooperative play is the fourth category where children clearly belong to a group and the play is organized by the members of the group who establish the rules and the roles that each child plays.

Gross-motor development progresses rapidly among preschool children as they begin to develop new skills and refine others (Bredekamp & Copple, 1997). Therefore, activities which help to develop gross-motor movement and confidence should be incorporated into each day (Bredekamp & Copple, 1997). During active play, for example, children

strengthen their large muscles and whole body coordination. They learn to be aware of their bodies' position in space and to move carefully as they run about, even in limited space. Manipulative materials like balls and ropes on the other hand develop small muscles on children's fingers and hands and also help children develop eye-hand coordination (Feeny & Magarick,1984, cited in Iseberg & Jalong, 1997). "Fine motor development progresses slowly during the preschool years but can be fostered by providing ample opportunities for open ended activities and by providing appropriate tools and adult support" (Bredekamp & Copple,1997, p. 104).

This study sought to examine whether there is a difference in the physical skills development of children who are exposed to different types of play in outdoor activities and those that are not exposed to different types of play. A study done in Embakasi Sub-county, Nairobi County by Clementine Juma on impact of outdoor activities on social development of preschool children, showed the general aspect, which is very broad. This study specifically examined the physical skill development which is often assumed to be obvious and in the real sense is not.

## 2.3 Provision of outdoor play facilities and equipment and physical skill development

In a study by Hemiger (1985), outdoor play behaviors of preschoolers were compared. The researcher concluded that, with the right equipment and careful teacher planning and encouragement, any desired playing type could be stimulated in the outdoor environment. He observed that social play was well stimulated outdoors and that cooperative play was about equal in either setting. Being outdoors was especially significant for preschoolers

and for older children of both sexes as the outdoor space could enhance children's interaction as well as connect with the environment.

In recent years, several studies have explored the ways in which children use play grounds with the availability of traditional and more modern playground equipment. Some of the most comprehensive work done in this field has been by Frost, who has studied children at play, on various types of playgrounds, some of them designed by him. Campbell and Frost (1985), observed second graders at one school playing in two types of play environments; One was a "traditional" playground that included seesaws and merry-go-rounds, swing, slide, and trapeze bars as well as a dirty playground area. The other was a "creative" playground area with three kinds of commercial climbers, a slide with enclosed platform, tire swings on swivels, movable seesaw, boat, and a platform structure that come with materials such as planks and crates for construction purposes. In a corner shack were stored riding, dramatic play and game equipment. Observations showed that the amount of cooperative play was about equal across both groups and at about the level expected of seven-year-olds. There was more dramatic play and construction play on the creative playground as might be expected, given the inclusion of appropriate materials. What was surprising was the marked increase in solitary play on the creative playground. The design of the playground and its greater variety of choices made it easier for children to play independently. Frost believes this is a plus and cites other researchers who like himself, believe that solitary play should not necessarily be viewed as a lower-order form of play.

In a related study, Frost and Campbell (1985) at the same school, the second graders favored movable equipment. For example, on the traditional playground, the swings, merry-go-round and the seesaws were preferred over the fixed climbing apparatus. Likewise, on the creative playground, the playhouse with its movable props and other movable materials such as boats were most popular. In general, action-oriented equipment and equipment designed for dramatic play were the most popular games equipment, while various kinds of balls were less popular. Frost points out that this observation conflicts with other researchers' observation that the preference for dramatic play reaches its peak between ages three and six then fades out about age seven in favor of games with rules. One possible explanation, Frost says is that playground traditionally have come equipped with static play equipment (and frequently not much of it) so that teachers prematurely push children into playing games with rules to give them something to do. The ultimate in playing grounds with movable parts for construction and dramatic play is the "adventure playground" pioneered in Denmark in the 1940's and quickly adopted all over Europe (Pedersen, 1985). These playgrounds were situated where there was a lot, often one that is waiting for a building to be constructed.

While studies of children in the outdoors lead to conclusions such as the desirability of complex over simple play structures and for equipment varied enough to support both solitary and social play, in reality teachers must often adapt to a very fixed and different sort of situation. You may have a play area that is large but has little or no equipment. You could have plenty of apparatus, but the components may be so close together that there is no clear, safe pathway through the area. You could even be confined to a rooftop or to a particular backyard. It is conclusive that providing movable equipment on

playgrounds encouraged preschool children to be active and helped them acquire physical skill development by way of adapting to play as the way the equipment is designed to be used. Provision of equipments helps the preschool children to acquire more physical skills like kicking, skipping, balancing, climbing when they are provided with apparatus like balls, ropes and climbing ladders. Studies show that children in schools with play facilities and equipment develop physical skills like throwing and catching, running for a certain distance and balancing as compared to their counterparts who are not exposed to play facilities and equipment. A study done in Makadara sub-county, Nairobi County (2011) looked at the general physical development like increase in body size and general physique, while this study looks at the physical skills that the children develop like jumping, balancing and throwing and catching. The study done in Makadara by Ngecha (2011), used questionnaires and interviews to study the general physical development in preschool children, while this study employed a variety of instruments like observation schedule, resource checklist and questionnaires. This study examined whether there is a difference in the physical skills development of children in schools that have and those that do not have play equipment.

### 2.4 Provision of time for outdoor activities and physical skill development

Reduction in school playtime may be as a result of negative attitude towards giving children time to play in school. Pellegrini (2008) argues that play time is perceived as a waste of time that could be spent on academic form of learning. Eliminating or reducing break times is counterproductive as this may be the only opportunity children have to let off steam and socialize with their peers. Therefore, break times at school are both important and educational. In fact, playful breaks from learning that is, unstructured breaks, actually improve, rather than hinder, physical development (Pellegrini, 2008).

In general, preschoolers should be permitted to move whenever they feel the need or interest, since this is the primary way they learn. As children get older and sedentary learning becomes more important, teachers should be sensitive to children need to play. If the classroom has the center time, some of the centers should incorporate movement when possible; children should be allowed access to outdoors when work time is free.

Most of the preschools have free play in the morning before they start their normal lessons. This time for free play is not taken seriously by the preschool teachers as most of them take it as time for learning language activity and number work. This comes because of pressure from the school directors and parents, because they want academic excellence. Studies show that adequate provision of time for the development of physical skills, led to the development of the required physical skills. A study done in Makadara by Ngecha (2011) shows that children in preschools that have allocated specific time for outdoor play activities developed the required physical skills than those in preschools that have not allocated specific time for the outdoor activities. This study examined whether

there is a difference in the physical skills development of children in schools that allocate adequate time for outdoor activities and those that do not.

### 2.5 Teacher's role in outdoor activities and physical skill development

Many questions are pertinent here as one has to explore on the attitude of teachers in preschools towards the teaching of outdoor activities. Teacher's concentrate on sports, so physical education is seen as sports. Instead of engaging the whole class in a systematic approach in skill development, they concentrate on few individuals who are skilled. During outdoor activities, some teachers teach as though children were of the same levels and abilities. Children who do not fit into the teachers' category are left behind sometimes ridiculed or shamed to be the target of sarcasm or belittlement. This negative behavior does not encourage some children to go for outdoor activities. Children like fun, so teachers are to provide the platform for children's enjoyment at the same time learn as well since outdoor activities encourages participation and development in variety of sports, thus providing pupils with the opportunity to participate in appropriate outdoor activities. According to Wuest and Lombardo (1994), teachers should anticipate change and be informed. They should also be future oriented, adaptable individuals, who are capable of taking suitable causes of action for themselves and the children.

It is the duty of the teacher to teach motor skills in a clean, concise manner so children can learn proper movement at an early age. The difficulty faced involves combination of class size and heterogeneity of skill levels pupils pose a problem to the classroom teachers, there is always a problem of classroom management, equipment and space in some schools, hence making it impossible to teach the subject as it stands (CSO Langata Sub-county, 2015).

Teachers should help their preschool children to develop a belief that the outdoor activity is beneficial to them. School outdoor activities are the primary avenue for achieving an active lifestyle. The sequential learning experience designed to fulfill this development should be carefully planned, comprehensive, innovative and intricately combined with teaching strategies. School outdoor activities focus on promotion of lifespan in physical activity, children learn the skills, understanding and attitude that will enable them to participate in various physical activities throughout their lives. Pangrazi (1995) went further to state that teachers need to be aware of the impact their behavior has on children.

The attitude of teachers on handling outdoor activities as an activity in the daily timetable is lukewarm. Teachers are neither scolded nor penalized for not handling outdoor activities effectively. However, teachers cannot get away without teaching other core subjects but hardly do for outdoor activities (Michael, 2014). Van, Sito and Jones (2003) posits that, the issue is clear here that most pre-school teachers only took one course in physical education methods as part of their teacher preparation. As such, they are not well prepared to teach the subject and cannot do all things expected of them. The teacher has a role to play in letting children go out for outdoor activities. According to the Curriculum Support Officer (CSO) in Langata Sub-County, most preschool teachers do not take outdoor activities as an activity area in the daily timetable in most schools. They take outdoor activity lessons as their free time that they go out and relax, after teaching the other core subjects. They take chairs and sit under trees as they watch children run around. The teacher who wishes to foster good skill development can do so in variety of ways. Observing children, establishing a supportive environment, using appropriate

teaching techniques and promoting creativity and playfulness, are all important avenues to success. A study by Ouko (2014) done in Starehe sub-county looked at the role teachers play in learning of language by preschool children. Parents expect children to obviously learn language once they are in school. Therefore, the teachers will teach and the children's books checked by parents to prove that learning took place. This study was set to address the role of teachers as an active participant in the outdoor activity. The teachers have a role of guiding and teaching the pre-schoolers on acquiring the physical skills. The children, who have been taught the physical skills during outdoor activities, acquire the required skills appropriately. The teachers are able to identify children who have a problem in acquiring the physical skill and help them repeat them until they acquire the skills at their own pace. Teachers should normally give guidance for all the activities in school. However, when it comes to outdoor activities, teachers tend to leave the preschoolers without any guidance, thus hindering the appropriate physical skill development of the preschoolers.

### 2.6 Summary of literature review

The study sought to examine whether there is a difference in the physical skill development of children who are exposed to different types of play in outdoor activities and those that are not exposed to different types of play.

On provision of outdoor play facilities and equipment, a study by Hemiger (1985) concluded that with the right equipments, careful teacher planning, and encouragement any desired playing type could be stimulated in outdoor environment. This study examined whether there is a difference in the physical skill development of children in schools that have and those that do not have play equipment.

Spending time in natural surroundings stimulates children's creativity and encourages children to actively play (Preston, 1992). This study examined whether there is a difference in the physical skill development of children in schools that allocate adequate time for outdoor activities and those that do not. Teachers should help their preschool children to develop a belief that outdoor activities are beneficial to them. The teacher has a role to play in letting children go out for outdoor activities (CSO Langata Sub county, 2015). This study examined whether there was a difference in schools where teachers fully participated in outdoor activities and those teachers that did not fully participate in outdoor activities.

## 2.7 Theoretical Framework

This study used Experiential learning theory which defines learning as "The process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb, 1984 p.41). This means that learners learn by doing and by experience with different play facilities and equipment, with enough time, with assistance from their teachers and with various types of play, they acquire the required physical skills like balancing, running, kicking, skipping, throwing and catching. Kolb's learning theory sets out four distinct learning styles (or preferences), which are based on a four-stage learning cycle, (which might also be interpreted as a 'training cycle'). In this respect, Kolb's model is particularly elegant, since it offers both a way to understand individual people's different learning styles, and an explanation of a cycle of experiential learning that applies to preschool children.

Kolb includes this 'cycle of learning' as a central principle in his experiential learning theory, typically expressed as four-stage cycle of learning, in which 'immediate or concrete experiences' provide a basis for ‘observations and reflections'. These 'observations and reflections' are assimilated and distilled into 'abstract concepts' producing new implications for action which can be 'actively tested' in turn creating new experiences.

Kolb says that ideally (and by inference not always) this process represents a learning cycle or spiral where the learner 'touches all the bases', for example, a cycle of experiencing, reflecting, thinking, and acting. Immediate or concrete experiences lead to observations and reflections. These reflections are then assimilated (absorbed and translated) into abstract concepts with implications for action, which the person can actively test and experiment with, which in turn enable the creation of new experiences. This theory is relevant to this study because for a child to learn a new skill, the child has to get the information, then through experience, the child can do active experimentation

Information processing theory (Artkinson and Shriffin, 1968) states that learners receive information from the environment, process it, executes it and then gets feedback. This means that when preschoolers get information from their teachers, they have to interpret the information, to perform the motor skills. When children go out for outdoor activities, they have to be directed, given instructions by their teachers, internalize and interpret the information. The theory is suitable for the study because in outdoor activities there is learning of physical skills expected to take place. Therefore, through the experience children are exposed to, they acquire physical skills. Although the children may acquire the physical skills in different learning styles because of individual learning differences.

## 2.8 Conceptual framework

The conceptual framework shows the relationship between the variables that surround the theme of the study. The study variables included the dependent and independent variables as well as the intervening variables as shown in Figure 2.1.

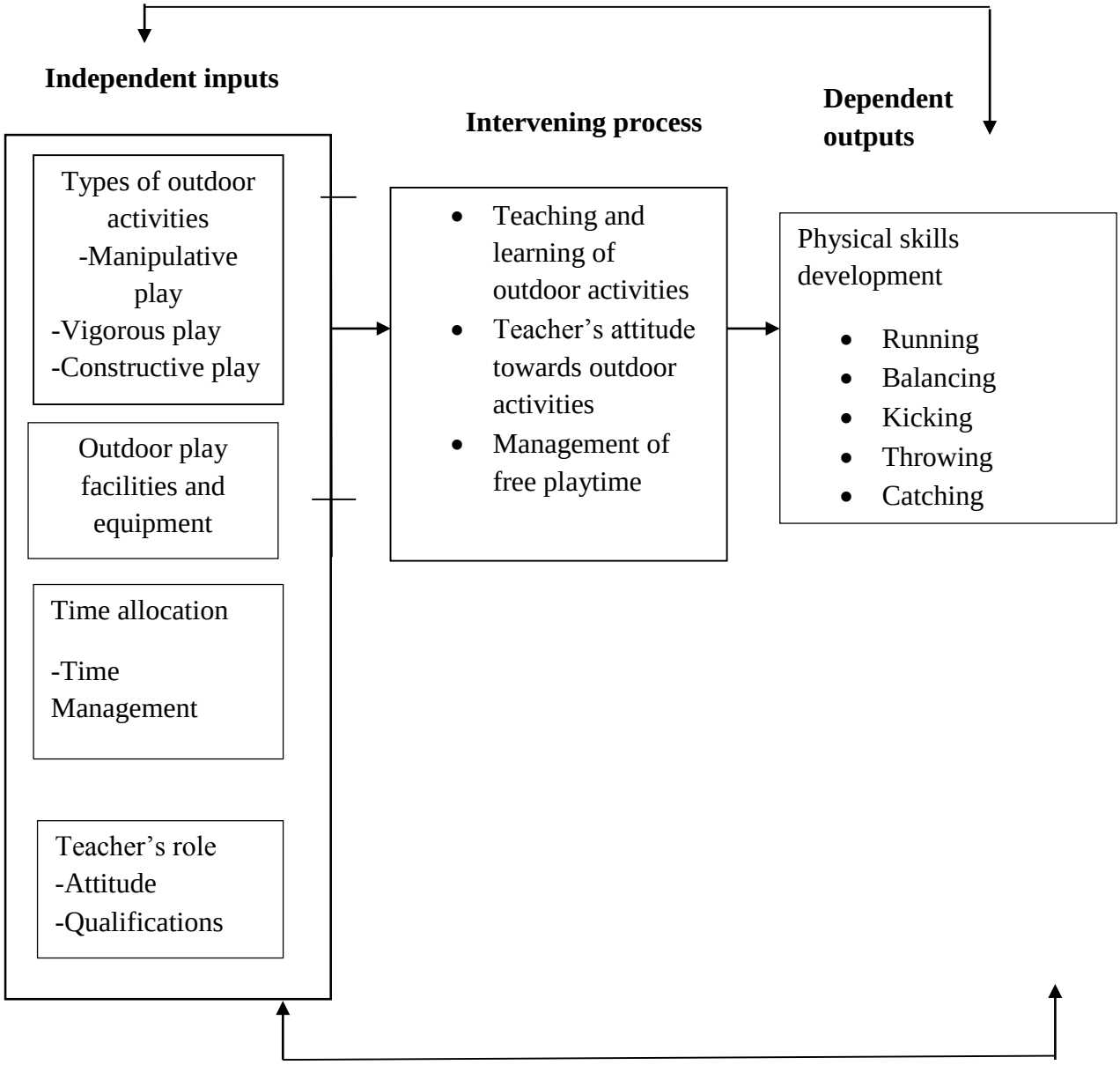


**Figure 2.1:** ***Conceptual framework***

Figure 2.1 shows the independent variables with the intervening factors representing the constraints that affect the level of physical skill development. This implies that with an observable change in the constraints or intervening variables to the independent variable, there will be subjective influence on the physical skill development either positively or negatively. With the inputs of the independent variables, the dependent variables will be achieved.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This section covers the research methodology and procedures applied in the collection and analysis of data. These methods and procedures have been highlighted under the ensuing sub headings: Research design, Target population, Sample size and Sampling techniques, Data collection methods and tools, Data Analysis techniques, and Ethical considerations.

## 3.2 Research design

The study employed ex-post facto design. Ex-post facto deals with research variables that have already occurred and cannot therefore be deliberately manipulated through the researcher's intervention. The ex-post facto design is appropriate for this study because the researcher established the relationship between physical skill development of preschool children and the types of outdoor activities, outdoor play facilities and equipment, time allocated for outdoor activities and role of teachers. At preschool level, the children have already acquired some physical skills. This study however looked at specific physical skills like jumping at a distance, running at a distance and throwing and catching at a distance.

## 3.3 Target population

According to Mugenda and Mugenda (1999), population is an entire group of individuals, events or objects having a common observation. The target population included 14 public preschools and 20 private preschools consisting of 34 head teachers, 68 teachers and

1440 preschoolers in Langata Sub-County; Nairobi County, ( Langata Sub-County Education Office, 2016)

### 3.4 Sample size and sampling procedure

According to Best and Khan (1998), a sample is a small proportion of a population selected for observation and analysis, while sampling is a deliberate rather than a haphazard method of selecting subjects for observation to enable scientists infer conclusions about a population.

The study employed both probability and non-probability sampling techniques. Stratified sampling was one of the probability techniques used in order to ensure that various schools were included in the study. The study population was stratified into public and private schools.

Non-probability sampling was then employed once the strata were identified. This included the use of purposive strata representing various backgrounds of outdoor activities, which include availability of space and no space, provision of equipment, and no equipment provided. Also, teaching of outdoor activities and not teaching of outdoor activities. The sample was drawn from Langata Sub-County. The study was conducted in 6 public preschools and 6 private preschools. According to Mugenda and Mugenda (1999), 15% representation is good, therefore 35% is a good representation for this study. These schools had an equal mix of those that provide play materials for outdoor activities and those that do not, those that have physical education specialists and those that have general teachers and the ones that provide play time for the preschoolers and those that do not. From the sampled schools, the 12 head teachers automatically became part of the

study. Through simple random sampling, the study included 24 teachers, and 360 preschoolers. Each preschool sampled gave two teachers by random sampling and 30 preschoolers having an equal mix of boys and girls.

### 3.5 Research instruments

The main instruments that this study relied on were questionnaires for pre-school teachers and head teachers, an interview guide for preschool teachers, a resource checklist for the facilities and equipment in the schools and observation schedule for children in the preschool.

#### 3.5.1 Questionnaires

The questionnaires (Appendix I and Appendix II) had three sections A, B and C. Section A was used to gather the demographic and background information of the respondent, section B sought information on outdoor activities and section C sought information on factors related to outdoor activities that influence on physical skill development. According to Oguta (1998), questionnaires are appropriate for educational research as they are affordable in terms of cost and saves time as an instrument of collecting data.

#### 3.5.2 Interview guide

According to Mugenda and Mugenda (1999) interview guide allows respondents to freely respond to questions, and gives the researcher an opportunity to probe the respondent further. The interview guide (appendix III) was administered to 24 pre-school teachers to obtain information on impact of outdoor activities on physical skill development of children.

### 3.5.3 Observation Schedule

The observation schedule (Appendix IV) was for the preschool children. An observation schedule was used to check movement of preschoolers and to measure the physical skill development such as kicking at a distance, static balance, standing board jump, dynamic balance, throwing and catching at a distance of preschool children. The movements were recorded when the preschoolers completed the tasks or if the movement was jerky and if there was coordination in performing the tasks.

### 3.5.4 Resource checklist

Resource checklists provide guidance on crucial questions that need to be asked concerning the play facilities and equipment in preschools. Appendix V was used to check the availability, quantity and quality of the play facilities and equipment in the preschools such as swimming pools, balls, tunnels, swings, ropes, tires, climbing ladders, frames and other play facilities.

## 3.6 Validity of the Instrument

Ogula (1998) states that validity is the degree to which a test measures what it is supposed to measure. Cronbach (1982) suggests that the validity of an instrument may be established deductively by showing that the items correspond to the definition of the trait intended to be measured.

According to Cronbach (1982); Mugenda and Mugenda (1999), for validity of any measuring instrument to be qualified, it must be subjected to a pre- test. The researcher tested the validity of the research instruments through a pilot study. A pilot study was conducted to test the validity of the questionnaires, observation schedule, and interview

schedule and resource checklist. The aim of the pilot survey was to test whether the design of questions was logical, if questions were clear and easily understood; whether the stated responses were exhaustive and how long it would take to complete the questionnaire or the interview schedule. The pre-test also allowed the researcher to check on whether the variables collected could easily be processed and analyzed. The pre-testing was carried out on a sample from the target population but not the ones used for the study, consisting of 6 head teachers, 12 teachers and 180 preschoolers. Any questions found to be interpreted differently during the pre-testing were rephrased so that they could have the same meaning to all respondents. Views given by the respondents during pre-testing were analyzed and used to improve the questionnaires before actual collection of data. The researcher also made consultations with her supervisor to confirm validity of the research instruments.

### 3.7 Reliability of the Instrument

Reliability refers to the degree to which a test consistently measures whatever it is designed to measure (Ogula, 1998; Philips, 1999). The study ensured the reliability of the instrument used to collect data by using a test retest technique. The researcher administered the questionnaires to a group of individuals with similar characteristics as the actual sample size at different points in time.

Reliability of the questionnaire was ensured by computing a reliability coefficient. Interview schedule was conducted at different points in time and then the responses were checked for consistency.

### 3.8 Procedure for data collection

Before going to the field, the researcher obtained a research permit from National Commission for Science and Technology and Innovation. The researcher then visited the selected schools to seek permission from the head teachers to enable the researcher to establish a rapport and to make appointments with the respondents on the appropriate sessions to administer the questionnaires, the interview schedule and the observation schedules. The questionnaires were left with the teachers for two days, and interviews were done, in each school. The resource checklist was used in all the schools, on the day the questionnaires were administered. The observations were done in one school per day, during the study.

### 3.9 Data analysis

At the end of the data collection exercise the researcher thoroughly inspected and edited data by checking for completeness of responses, their uniformity and for their accuracy. The study used the statistical package for social sciences to analyze data and present it in frequency tables and charts. The study then interpreted the data by giving meaning to what has emerged as per the research objectives.

### 3.10 Ethical considerations

This study was built on ethical considerations of anonymity and confidentiality, intellectual honesty, respect for intellectual property rights, non-fabrication of findings and originality. During this study, the researcher took responsibility for the study and its outcome. Any information provided by the respondents was maintained in confidence. All interviews were tape-recorded with the permission of the participants. The researcher obtained permission from participants to use information for the purpose of the study.

The researcher also ensured that data was not falsified but was objective and that all sources of information or data have been acknowledged. Finally, this study was approved by the University. Further, consent was sought from the particular pre-school children's parents and teachers before they participated in this study.

# CHAPTER FOUR

# FINDINGS AND DISCUSSIONS

## 4.1 Introduction

This chapter focuses on the presentation and discussion of the findings of this study. The presentation of the findings is done based on the research objectives, which were to:

i) Examine how types of outdoor activities influence children's physical skill development.
ii) Establish how provisions of outdoor play facilities and equipment influence children's physical skill development.
iii) Establish whether the time provided for outdoor activities influence children's physical skill development.
iv) Determine how the role of teachers in outdoor activities influences children's physical skill development.

## 4.2 Response rate

The study collected data on response rate of the head teachers and teachers. The information is presented in table 4.1.

**Table 4.1: Response rate**

| **Respondents** | **Returns** | **Frequency** | **Percentages (%)** |
|---|---|---|---|
| Head teachers | 12 | 12 | 100% |
| Teachers | 20 | 24 | 84% |
| **Total** | **32** | **36** | **88.9%** |

Table 4.1 shows data on the response rate of the head teachers and teachers who responded to the questionnaires. Data reveals that the head teachers' response to the questionnaires was (100%). However, 4 (16%) of the teachers did not respond. Therefore, 88.9% of the target population responded to the questionnaires. This is a very good response rate because according to Mugenda and Mugenda (2003), a response rate of 50% is allowed for analysis, a response rate of 60% is good and a response rate of 70% and over is very good.

## 4.3 Findings on the types of outdoor activities and physical skill development

### 4.3.1 Types of outdoor activities offered in preschools

The study sought to examine whether preschool children in Langata sub-county were engaged in different types of outdoor activities, the study asked teachers to state the activities they involved the children in, during the outdoor activities. Data on the types of outdoor activities is presented in Table 4.2.

**Table 4.2: Types of outdoor activities**

| | **Teachers' responses (Public Pre-Schools)** | | | | | | **Teachers' responses (Private Pre-Schools)** | | | | | | **Total** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Physical Skills** | A | B | C | D | E | F | G | H | I | J | K | L | |
| No. of teachers | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | **20** |
| **Mean Score** | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **62** | **73** | |
| Kicking a ball | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| Running forward | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| Rope Skipping | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 |
| Throwing and catching ball | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| Static balance on right and left foot | | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | 5 |
| Dynamic balance | | | | | | | | ✓ | | | ✓ | ✓ | 3 |
| Standing board jump | | | | | | | | | | | | ✓ | 1 |
| Clapping and walking in rhythm | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| Kicking a ball at 5m target | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| Throwing at a 2m target | | | | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | 6 |
| Grasping | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| Swinging | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | ✓ | 7 |
| **Total** | 8 | 8 | 8 | 9 | 6 | 9 | 8 | 11 | 9 | 8 | 10 | 12 | |
| **Percentages** | 67 % | 67 % | 67 % | 75 % | 50 % | 75 % | 67 % | 92% | 75 % | 67 % | 83 % | 10 0% | |
| **Average** | **66.83%** | | | | | | **80.66%** | | | | | | |

Table 4.2 shows that teachers in private pre-schools provided more physical skills (80.66%), more than the teachers in public preschools (66.83%). The table also reveals that some physical skills like kicking balls, rope skipping, running forward, throwing and

catching balls were offered more and by all schools. However, some physical skills like standing board jump was provided by only school L, dynamic balance was provided by schools H, K and L only. This was so because private schools had adequate equipments and facilities that enabled them to acquire the physical skills.

The study sought to examine the children's performance in outdoor activities in Langata Sub County. The study used observation schedule to examine children's performance in outdoor activities. Data on the children's performance scores is presented in Table 4.3.

**Table 4.3: Children performance scores**

| Physical Skill | **Total Marks** | **Public Schools** | | | | | | **Private Schools** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G | H | I | J | K | L |
| Static balance on right and left foot | 10 | 8 | 5 | 6 | 8 | 4 | 5 | 9 | 7 | 9 | 8 | 9 | 8 |
| Dynamic Balance | 10 | 7 | 5 | 6 | 6 | 5 | 6 | 7 | 6 | 8 | 6 | 9 | 8 |
| Standing board jump | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Clapping and walking in rhythm | 10 | 8 | 9 | 8 | 7 | 6 | 8 | 9 | 9 | 8 | 6 | 9 | 8 |
| Kicking a ball at 5m target | 10 | 8 | 9 | 9 | 8 | 9 | 8 | 8 | 7 | 6 | 5 | 9 | 9 |
| Throwing at a 2m target | 10 | 5 | 6 | 5 | 7 | 6 | 6 | 7 | 8 | 8 | 6 | 8 | 9 |
| Running forward | 10 | 8 | 8 | 9 | 9 | 8 | 9 | 7 | 8 | 9 | 8 | 9 | 9 |
| Balancing on right and left foot | 10 | 6 | 5 | 6 | 5 | 7 | 8 | 8 | 8 | 9 | 5 | 8 | 8 |
| Throwing & catching a ball | 10 | 5 | 6 | 5 | 4 | 5 | 7 | 8 | 5 | 8 | 8 | 9 | 7 |
| **Total** | **100** | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **62** | **73** |

`

Table 4.3 shows that the children in schools that had different types of physical skill activities, developed various physical skills. This is seen majorly in private schools e.g. school L, where majority of children obtained a higher performance score in the physical skills. However, in some public preschools e.g. school A provided a variety of physical skill activities and therefore the children developed the physical skills, hence some of the public preschools had a higher performance score. It is evident that some of the physical skills were easy to perform, for example running forward and throwing a ball at a target, for both private and public preschoolers. However, some of the physical skills such as standing board jump and dynamic balance were difficult for the preschool children to perform. It was as well observed that girls obtained a higher score in throwing and catching balls, while boys performed well in kicking balls at a distance. As observed, School L is the only school that provided the standing board jump, hence other schools had a zero performance score, except school L.

Most schools engaged the children in outdoor physical activities such as running forward, throwing and catching the ball and grasping. However, other activities such as standing board jump and dynamic balance were only done in some of the private schools like H and L. Private schools gave more outdoor activities to the preschoolers compared to their counter parts in public schools. It is evident that provisions of physical skill activities help children develop physical skills. This is in line with findings of a study done in Starehe by Mwilu (2010).

### 4.3.2 Teachers' outdoor activities teaching approach

The study sought to find out the teachers' outdoor activity teaching approach and the teachers responses on the teaching approaches are presented in Table 4.4.

**Table 4.4: Teachers responses on types of outdoor activities**

| Response | **Preschools** | | | | | | | | | | | | **Total** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Types of Outdoor Activities | A | B | C | D | E | F | G | H | I | J | K | L | |
| Free play | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Directed play | ✓ | - | ✓ | ✓ | - | - | ✓ | ✓ | ✓ | - | ✓ | ✓ | |
| **Total** | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | **20** |
| Mean Scores | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** | |

From Table 4.2 and 4.3, it is evident that provisions of physical skill activities help children develop physical skills. The preschools that provided the various physical skill activities had their children perform well in carrying out the activities as shown in Table 4.4 Therefore; provisions of various types of physical skill activities help children develop the required physical skills. According to the experiential learning theory, knowledge results from the combination of grasping and transforming experience (Kolb 1984). This means that learners learn by doing and by experience. When preschoolers are exposed to various physical skill activities, with experience, and with different types of play activities, they will develop the required physical skills. When they are not exposed to different physical skill activities, they will not develop the physical skills.

### 4.4 Findings on provision of play facilities and equipment and physical skill development

The study sought to find out whether outdoor play materials and equipments were adequate in preschools in Langata Sub-county. A resource checklist was used to indicate items available in the various preschools. The data is presented in Table 4.5.

**Table 4.5: Play facilities and equipments available in various preschools**

| | **Play Equipment** | | | | | | | | **Play Facilities** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Balls | Tyres | Ropes | Sacks | Playing Blocks | Hoops | Bean bags | **Total** | Play Ground | Slides | Climbing Ladders | Seesaws | Climbing Frames | Swings | **Total** | **Mean Scores** |
| **Public Pre-schools** | | | | | | | | | | | | | | | | |
| 1. B | 1 | - | - | - | 1 | - | - | **2** | 1 | - | - | - | - | - | **1** | **48** |
| **2.** C | 4 | - | 6 | - | 1 | 1 | 1 | **13** | 1 | - | - | - | - | 1 | **2** | **54** |
| 3. D | 1 | - | - | - | - | - | - | **1** | 1 | - | - | - | - | - | **1** | **54** |
| 4. A | 3 | 1 | 1 | - | - | 1 | - | **6** | 1 | - | - | - | - | 1 | **2** | **66** |
| 5. E | 1 | - | - | - | - | - | - | **1** | 1 | - | - | - | - | - | **1** | **44** |
| 6. F | 1 | - | 1 | - | - | 1 | - | **3** | 1 | - | - | - | - | - | **1** | **57** |
| **Private Pre-Schools** | | | | | | | | | | | | | | | | |
| 1. G | 6 | 2 | 3 | 1 | - | 1 | 3 | **16** | 1 | 1 | 1 | 2 | 1 | 2 | **8** | **63** |
| 2. H | 8 | 4 | 5 | 2 | 1 | 3 | 4 | **27** | 1 | 2 | 1 | 2 | 1 | 3 | **10** | **58** |
| 3. I | 4 | 3 | 5 | - | - | 1 | 2 | **15** | 1 | 2 | 1 | 1 | 1 | 4 | **10** | **65** |
| 4. J | 1 | 1 | 1 | - | - | - | - | **3** | - | - | - | - | - | - | **-** | **52** |
| 5. K | 1 | - | 2 | 1 | 2 | - | 1 | **7** | - | - | 1 | - | 1 | - | **2** | **64** |
| 6. L | 10 | 5 | 6 | 3 | 2 | 4 | 5 | **35** | 1 | 4 | 2 | 3 | 1 | 4 | **14** | **73** |

Table 4.5 shows that preschool L (play equipments 35 and play facilities 14) and preschool H (equipments 27 and facilities 10) had the highest number of play facilities

and equipment, while school B (equipment 2 and facilities 1) and preschool E (equipment 1 and facilities 1) had the lowest play facilities and equipment. Majority of public schools are most hit with few play facilities and equipment, while private schools in well-established areas in Langata Sub County have a variety of play facilities and equipments. It is evident that despite having large playgrounds in preschools attached to public preschools in Langata Sub County, adequate outdoor play facilities and equipments are lacking with at most one equipment in each preschool. It was observed that private preschools established in middleclass estates had at least one facility from all categories while those in low class areas had none at all like school J. The preschools that provided variety of play facilities and equipment, like school L (play equipments 35 and play facilities 14) had a high performance score (73%) while those that did not provide a variety of play facilities and equipment like school E (equipment 1 and facilities 1) had a low performance score (44%).

The preschools under the study provided play materials meant to develop the physical skills of the preschoolers. However, not all the required play equipments were provided by all preschools. In some schools, the equipments were not appropriate for the activities to help the preschoolers develop the required physical skills e.g. playing blocks and hoops.

From the data, preschoolers in private preschools had sufficient play facilities (44) and equipment (103), compared to their counterparts in public preschools who had a total number of 8 play facilities and 26 play equipment. This is in line with the findings from the observation schedule for preschool children, which indicated that children from private preschools who were exposed to sufficient play facilities and equipment,

developed physical skill, like the ones in school L who had very high performance score (73%), as compared to the children from public preschools who were not exposed to sufficient play facilities and equipment like the ones in school F who had the best performance score of 57%. According to Hemiger (1985), with the right facilities and equipment and careful teacher planning and encouragement, any desired playing type could be stimulated in the outdoor environment. The findings go along with Montessori (1952), who stated that children learn and develop best physical skills in a prepared environment, like a playground where opportunity for play is provided.

The study further sought the head teacher's response on the availability and appropriateness of facilities and equipments. The responses are as presented in table 4.6

**Table 4.6: Head teachers' response on provision of facilities and equipment**

| | H/Teachers of preschools | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L |
| Adequate area for outdoor Activity | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ |
| Appropriate Materials | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Mean Score | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** |

From the data the head teachers from 11 preschools said they had adequate area for outdoor activities. Head teacher from school J indicated that the school did not have adequate area for outdoor activity. All the head teachers said they had appropriate materials. With appropriate materials and adequate area for outdoor activities, there was high performance score in preschool L (73%) and preschool A (66%). However,

preschool J (52%) had no adequate area for outdoor activity, but the performance was still higher than some schools that had adequate area and appropriate materials like school B (48%). This is in line with Frost and Campell (1985) who stated that the design of the playground and its greater variety of choices made it easier for children to play independently. The study also asked the teachers about the availability and appropriateness of facilities and equipment in their schools and their responses are shown in Table 4.7.

**Table 4.7: Response of teachers on provision of equipment and facilities**

| | Teachers of preschools | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L |
| Place for outdoor activities | Field | Playground | Field | Field | Playground | Field | Playground | Playground | Playground | Corridor | Field | Playground |
| Adequacy of play area | yes | - | yes | yes | yes | yes | - | yes | yes | yes | yes | yes |
| Availability of outdoor materials | yes | yes | Yes | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Mean Score | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** |

Table 4.7 indicates that 18 teachers said that there was adequate area for outdoor activities at the same time; all teachers (20) said that there was availability of outdoor materials in their preschools. But on the ground, some schools like B, D and E had only one facility and little equipment. However, these schools B (48%), D (54%) and E (44%) also had lower performance score. This implies that with adequacy of play area and availability for outdoor materials, the children performed well like in schools L (73%), A (66%) and I (65%).

### 4.5 Findings on provision of time for outdoor activities and physical skill development

The study sought to establish whether time provided for outdoor activities in the timetable was utilized well for the activity, the researcher asked the teachers to state the time they went out for outdoor activities and how long they took. The teachers' responses are shown in Table 4.8.

**Table 4.8: Time provision for outdoor activities**

| **Schools** | No. of lessons allocated for play in a week | Time allocated per day | **Time taken per day** | **% of more/less time used per day** | **Mean Score** |
|---|---|---|---|---|---|
| **Public Pre-schools** | | | | | |
| B | 5 | 30 min | 50 min | 66.7% | 48 |
| C | 5 | 30 min | 60 min | 50% | 54 |
| D | 5 | 30 min | 40 min | 33.3% | 54 |
| A | 5 | 30min | 50 min | 66.7% | 66 |
| E | 5 | 30 min | 50 min | 50% | 44 |
| F | 5 | 30 min | 40 min | 33.3% | 57 |
| **Private Pre-Schools** | | | | | |
| G | 5 | 30 min | 50 min | 66.7% | 63 |
| H | 5 | 30 min | 30 min | 0% | 58 |
| I | 5 | 30 min | 30 min | 0% | 65 |
| J | 5 | 30 min | 30 min | 0% | 52 |
| K | 5 | 30 min | 50 min | 66.7% | 64 |
| L | 5 | 30 min | 40 min | 33.3% | 73 |

From Table 4.8, data indicates that the children in all public preschools, were given more time for outdoor play more than those in private preschools, like school C who used 60 minutes for outdoor play compared to school K who used 30 minutes for outdoor play. This is because public preschools plot their outdoor activity lessons just before break, giving them extra time for outdoor activity. On the other hand, the private preschools plot their time in the first lesson and in between other lessons giving them less time for outdoor activities. Although public preschools had more time on outdoor activities, the children's performance was low. This could be seen in schools B and E. However, their counterparts in private schools had less time, like I and H and they had high performance. It was observed that the public pre-schools had more time but it was not used effectively for learning the physical skills. In private schools, they had less time but fully dedicated for directed play and not free play. This is in line with Pellegrini (2008) who stated that playful breaks from learning that is, unstructured breaks, actually improve, rather than hinder, physical development.

The study further sought to find out the responses of head teachers on time provision. The data is shown in Table 4.9

**Table 4.9: Head teachers' response on time provision**

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Outdoor activities in daily program | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Mean Score | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** |

Responses from the head teachers in all the schools showed that there were outdoor activities in their daily program. However, observation from the preschools' timetables did not reveal the same. Outdoor activity lesson was plotted on the timetable but they did not take the children out for the lesson, like in school J. This in turn gave the children from school J a low performance score of 52%. This is in line with a study done in Makadara by Ngecha (2011) which showed that children in preschools that had allocated specific time for outdoor play activities developed the required physical skills than those in preschools that had not allocated specific time for the outdoor activities. The study further sought to find out the responses of teachers on time provision. The data is shown in Table 4.10.

**Table 4.10: Teachers' response on time provision**

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time for outdoor Activities | Before break | Before break | Before break | Before break | Before break | Before break | 1st Lesson | 2nd Lesson | 3rd Lesson | 2nd Lesson | 1st Lesson | 3rd Lesson |
| Length of time taken (Min) | 50 | 50 | 60 | 40 | 50 | 40 | 50 | 30 | 30 | 30 | 50 | 40 |
| Occasions not out for outdoor activities | Raining | Raining | Exams Revision | Cold | Cold | Raining | Exam Revision | Exam | Revision | Raining | Revision | Cold |
| Mean Score | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** |

Teachers' responses as shown in Table 4.10 revealed that there was more time allocated for outdoor activities in public preschools as seen in school A, B, C and E. The private preschools had less time as was seen in schools H, I and J. The data further shows that there were occasions when the teachers in all the preschools did not take the children out for play, especially when it is raining and during exams. It was evident that the teachers in public preschools gave their children more time for outdoor activities, as compared to children in private preschools. In practice however, the free play in the morning is normally in class and if the teachers assumed that the children had already had play, then, the children would miss on the outdoor activities. Although public preschools had more time on outdoor activities, the children's performance was lower. This could be seen in schools B and E. However, their counterparts in private schools had less time, like I and H and they had high performance. It was observed that the public pre-schools had more time but it was not used effectively for learning the physical skills. In private schools, they had less time but fully dedicated for directed play and not free play. This is in line with Pellegrini (2008) who argues that play time is perceived as a waste of time that could be spent on academic form of learning.

### 4.6 Findings on teachers' role in outdoor activities and physical skill development

The study sought to find out whether pre-school teachers in Langata Sub County were trained and the results are indicated in table 4.11.

**Table 4.11: Teachers qualification**

| **Level** | **Frequency** | **Percentage** |
|---|---|---|
| Graduate | 2 | 8.3% |
| Diploma | 12 | 50% |
| Certificate | 4 | 16.7% |
| Untrained | 2 | 8.3% |
| **Total** | **20** | **83.3%** |

The information on table 4.5 indicates that the highest number of preschool teachers in Langata Sub county 12 (50%) are diploma holders followed by certificate 4 (16.7%), degree holders and untrained are the lowest with 2 (8.3%). This shows that all preschool teachers in Langata Sub-County are trained and therefore skilled to handle preschool children for outdoor activities.

### 4.6.1 Head teachers' responses on teachers' participation

The study sought to find out teachers' participation in outdoor activities. This information is indicated in Table 4.12.

**Table 4.12: Head teachers' response on teachers' participation in outdoor activities**

| | H/Teachers of preschools | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L |
| Encouraging teachers for outdoor activities | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| How outdoor activities are undertaken | Daily | Daily | Daily | Daily | Daily | Daily | Daily | Daily | Daily | Not always | Daily | Daily |
| Mean Score | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** |

Data in Table 4.12 from the head teachers' responses showed that all the head teachers encouraged their teachers to go for outdoor activities. The head teachers indicated that their teachers went for outdoor activities daily except in school J where the head teacher indicated they did not go for outdoor activities daily. This is because school J had no playground. Although, the head teachers indicated that they went for outdoor activities daily, some of the schools like school B, had a very low performance score (48%) while school J who had a performance score of 52% who did not have playground, their children performed better than those in school B. This shows that although school J did not have a playground, their teachers instructed and taught them in the available space, and thus they could perform better than other schools with play grounds. This is in line with CSO Langata Sub-county (2015) who stated that it is the duty of the teacher to teach motor skills in a clean, concise manner so children can learn proper movement at an early age. The difficulty faced involves combination of class size and heterogeneity of skill levels pupils pose a problem to the classroom teachers, there is always a problem of classroom management, equipment and space in some schools, hence making it impossible to teach the subject as it stands.

The study sought the responses of teachers on their participation in outdoor activities.

The data is presented in Table 4.13.

**Table 4.13: Teachers' responses on teachers' participation in outdoor activities**

| | Teachers of preschools | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L |
| Your role in outdoor activities | Instructing | Encouraging | Teaching | Help with materials | Encourage | Supervising | Instructing | Instructing | Instructing | Encouraging | Instructing | Instructing |
| Mean Score | **66** | **48** | **54** | **54** | **44** | **57** | **63** | **58** | **65** | **52** | **64** | **73** |

Table 4.13 shows that, the teachers indicated that they participated in outdoor activities by instructing the children like in schools A, B, G and H. Others responded by saying they supervised the children like in school F and some encouraged the children to go for outdoor activity like school J, B and E.

From the data it is evident that teachers who participated in outdoor activities by instructing the children like in school A (66%), G (63%) and K (64%) as well as those who supervised the children like in school F (57%), had their children perform highly in outdoor activities and hence developed physical skills. Schools that their teachers did not participate fully like school D (44%), where the teachers were just helping with materials did not perform highly and hence did not develop physical skills. It is evident that the more the teachers participate in outdoor activities, the higher the performance and thus it is in line with research done by Ouko (2014), who stated that the teacher's role is very key in the development of children's physical skills.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents the summary, conclusions, and recommendations. The chapter also presents suggestions for further studies.

## 5.2 Summary

The purpose of this study was to determine the impact of outdoor activities on physical skill development of preschool children in Langata Sub County. Four research objectives were formulated to guide the study. Research objective one sought to examine how types of outdoor activities influence children's physical skill development. Research objective two sought to examine how the provision of outdoor play facilities and equipment influenced children's physical skill development. Research objective three sought to establish whether the time provided for outdoor activities influenced children's physical skill development, while research objective four sought to determine how the role of teachers in outdoor activities influence children's physical skill development.

The study employed expost-facto design; the population included 12 preschools in Langata Sub-county. The study used questionnaires, interview guide, and observation schedule and resource checklist. Findings on the types of outdoor activities on physical skill development revealed that children in private preschools were exposed to different types of outdoor activities as they were being directed and taught by their teachers. It was clear therefore that those children who were exposed to manipulative and vigorous play developed physical skills.

Findings on provision of outdoor play facilities and equipments in preschools revealed that private preschools established in middle class estates had variety of facilities and equipments. Most public preschools had one type of equipment or none at all despite having big play grounds. Some of the equipment available were either broken down or in bad shape. Preschools situated in slums were worst hit with no facilities at all hence; these children were deprived of outdoor play and shut off from all that makes life real and meaningful (Fantuzzo & Wayne, 2002). However, the study revealed that all the schools had some improvised materials either donated by parents or made by teachers themselves in order to enhance active play.

Results on the findings on time provided for outdoor activities revealed that children in public preschools were given more time for outdoor activities by their teachers as compared to their counterparts in private preschools. This is evident in the way the public preschools allocated their time for outdoor activities on the timetable. They were given the last lesson to break, to extend their outdoor play during break.

Results of the findings on the role of teachers in outdoor activities revealed that the preschool teachers were trained and skilled to handle preschool children in outdoor activities. It was further noted that the teachers were aware of their role in play and they responded to this by indicating whether they participate in outdoor activities.

## 5.3 Conclusions

Based on the findings, it was concluded that when children were exposed to manipulative and vigorous play, they developed physical skills. This was exhibited in the manner in which they conducted play. The schools sampled supported the findings of the objective which was to examine how the types of outdoor activities influence children's physical skill development.

The study also concluded that provision of outdoor play facilities and equipments enhanced children's physical skill development such as throwing and catching, running forward and backwards, static balance, rope skipping, swinging and others.

The study also concluded that the children in public preschools were given more time for outdoor activities by their teachers and hence helped them develop physical skills as they have enough time to participate. The study also concluded that teachers in private schools participate more in outdoor activities than their counterparts in public preschools.

## 5.4 Recommendations

Based on the findings, the following recommendations were made;

There is need for the government officers to sensitize the teachers and parents on the importance of play in preschools. This will go a long way in making headway in holistic development as well as holistic learning of young children. Learning will be natural as parents and teachers alike will endeavor to accord the child play time, play materials and facilities.

The government of the republic of Kenya should initiate programs that can alleviate poverty in low income areas of the city of Nairobi. In light of this, there is need for the development partners like World Bank, UNESCO and others to initiate income generating activities for the urban poor. This will make headway for economic empowerment hence realization of learning through play as schools will be able to provide facilities and equipment.

The ministry of Education should provide policy guidelines to all pre-schools with regard to pre-school education, training teachers, curriculum and support material, registration, supervision and inspection of ECD centers in regard to provision of outdoor activities.

Schools should provide or improvise play facilities and materials to enhance holistic development through play.

Teachers should be encouraged to participate in outdoor play as well as involving all children in participating in outdoor play.

### 5.5 Recommendations for further research

The results from this study have prompted need for further research to explore effects of outdoor activities on other aspects of children's development. The following areas should be investigated:-

(i) Effects of outdoor activities on social development of children

(ii) Effects of outdoor activities on cognitive development of children

(iii) Effects of outdoor activities on emotional development

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# APPENDICES

## Appendix I: Questionnaire for Pre-School Head teacher

**Dear respondent,**

My name is LilianA.Opondi. I am a student at University of Nairobi. I am carrying out a research to investigate the impact of outdoor activities on the physical skill development of pre-school children. I kindly request you to assist me by honestly responding to all the questions in this questionnaire.

The information you provide in this questionnaire is meant strictly for academic use. All information you will share in this questionnaire will be treated confidentially.

**INSTRUCTIONS:** Please respond by either ticking in the brackets ( ) or filling in in the gaps provided.

1. a) Does every class have outdoor activities in their daily programme?

   Yes ( ) No ( )

   b) If No in **1**(a), how do you ensure that the daily outdoor activities are undertaken?

2. a) Does the school have adequate area for outdoor activities?

   Yes ( ) No ( )

   b) If No, in 2(a), how do you plan for outdoor activities?

3. a) Do you have annual budget for outdoor materials and equipments?

   Yes ( ) No ( )

   b) If No in 3 (a), how do you acquire outdoor materials and equipment your school?

4. a) Do you provide materials that are appropriate to the development of physical skills of children? Yes ( ) No ( )

b) If No in **4** (a), how do you ensure that children use the right outdoor materials for their physical skill development?

5. a) Do you encourage your teachers to effectively oversee outdoor activities? Yes ( ) No ( )

b) If Yes in 5 (a), how are the outdoor activities undertaken?

6. a) According to your views, are the materials provided responsible for (Tick where applicable):

(i) Kicking?

(ii) Running?

(iii) Climbing?

(iv) Swimming?

(v) Throwing and Catching?

(vi) Balancing?

## Appendix II: Questionnaire for Pre-School Teachers

**Dear respondent,**

My name is Lilian. AOpondi. I am a student at University of Nairobi. I am carrying out a research to investigate the impact of outdoor activities on the physical skill development of pre-school children. I kindly request you to assist me by honestly responding to all the questions in this questionnaire.

The information you provide in this questionnaire is meant strictly academic use. All information you will share in this questionnaire will be treated confidentially.

**INSTRUCTIONS:** Please respond by either ticking in the brackets ( ) or filling in in the gaps provided.

1. a) Do children like playing? Yes ( ) No ( )

   b) If No 1(a), what do they do instead of outdoor activities?

   .....

   .....

   c) if YES 1(a),what type of outdoor activities do you engage the children in?

   .....

   .....

2. a) At what time do they go out for play? Early in the morning ( ) mid morning ( ) Afternoon ( ) late afternoon ( ) Evening ()

   b) How long do they play outside the house/class? Less than 20 minutes () more than 30minutes ( ). 1 hour ( ), more than 1 hour ( )

   others specify…….

3. (a) where do you take the children for outdoor activities? Field ( ) playground ( ) corridor( ) outside the class( ) .

(b) If there is any other place, please indicate here. .....

.....

(c) Is the area for outdoor activities adequate? Yes ( ) No ( )

(i) If No in 3(c), how do you organize for outdoor activities?.....

.....

.....

4. a) Do you provide them with outdoor play materials? Yes ( ) No ( )

b) If yes 4 (a) which materials?

( ) Balls

() sacks

() Bean bags

() Hoops

( ) Skipping ropes

( ) Old car tyres

( ) Playing blocks

( ) Ladders

( ) Swings

( ) Others specify.....

c) If NO in 4 (a), what activities do you involve children in during outdoor activities that does not require use of materials?

( ) Running ( ) Balancing ( ) Rolling ( ) Clapping and walking in rhythm ( ) Jumping ( ) Others specify.....

d) Are the materials provided appropriate to the development of physical skills of Children? Yes ( ) No ( )

e) If No in (d) above, indicate, the type of materials provided and their Importance on physical skill development of children?.....

.....

5) a) What role do you play in outdoor activities?

() Giving instructions

( ) Help them to with outdoor materials

( ) Encourage them to use material and equipment

( ) Supervise

( ) None

Indicate others .....

.....

b) How long do children take to master physical skills in a given outdoor activity?

() One lesson () One week () One month

Any other .....

.....

c) Is there any connection between the use of materials on physical skill development of children?

Yes ( ) No ( )

If Yes in (c), which physical skill development aspect?

(i) Kicking?

(ii) Running?

(iii) Climbing?

(iv) Throwing and Catching?

(v) Balancing?

(vi) Other physical skills .....

.....

.....

6) please provide any information that is not included in this questionnaire but you believe it could be necessary to this study.

.....

.....

.....

## Appendix III: Interview Guide for Pre - School Teachers

The following questions will be used during interview with Pre-school teachers (both male and female) from Langata Sub County Pre-schools to collect data on the effects of outdoor activities on physical sill development of children.

1. What is your name Sir/Madam?

2. a) Does your daily programme provide for outdoor activities?

   Yes ( ) No ( )

   bi) If Yes in 2 (a), what time is allocated for outdoor activities?

   .....

   bii) When do they go for outdoor activities?

   .....

2 c) If No, how do you cater for outdoor activities?

   .....

3 a) Do you have adequate area for outdoor activities?

   Yes ( ) No ( )

   b) If the area is not adequate, how do you organize for outdoor activities?

   .....

4. a) What materials do you provide children with for:-

   (i) Kicking?

   (ii) Balancing?

   (iii) Skipping?

   (iv) Running?

(v) Swinging?

(vi) Throwing and Catching?

b) Is there any other equipment apart from the one I have asked ?

.....

c) How long does it take children to a master a physical skill in a given activity?

.....

d) Is the mastering of the physical skill related to the following?

(i) Age of the child?

(ii) Exposure to the materials?

(iii) Role of teacher?

(iv) Time allocated?

(v) Type of outdoor activities provided?

5 a) Do you assist children during outdoor activities? Yes ( ) No ( )

b) If Yes ( ) in 5(a), how do you assist?.....

( ) How to use materials

( ) Encourage them

( ) Supervision

( ) Giving out materials

( ) Others - specify

c) If No in 5(a), what role do you play during outdoor activities?.....

.....

6) a) Do you advice the parents on the importance of outdoor activities on Physical development of the children? Yes ( ) No ( )

a) If Yes in 6 (a), how do you advice them? .....

.....

d) If No in 6(a), why? .....

.....

7 when you take the children for outdoor activities, what types of outdoor activities do you engage them in? (a) Free play

(b) Directed play

(i) If free play, how do you do it? .....

.....

(ii) If directed play, how do you do it? .....

.....

(iii) If both, how do you organize the children? .....

.....

8 a) Is there any relationship between exposure to outdoor activities with Children's physical skill development like kicking and skipping of the rope? .....

.....

.....

(b) Is the relationship between the exposure to outdoor activities to physical skill development?

| Children often exposed to outdoor activities | Children less exposed to outdoor activities |
|---|---|
| | |

(Indicate the ability per each group i.e. kicking, balancing, skipping, running, throwing, catchingetc).

**Appendix IV: Observation Schedule: (Children skills acquisition)**

Name of School: Type of School: No. of child:

a) Static balance on right and left foot (maximum time 40 seconds) (10 Marks)

Completes task, cannot remain in one place, must touch floor with raised foot to retain balance

b) Dynamic balance (total time in units of 0.10 seconds taken to jump sideways with feet together over a 25 x10cm platform attached to floor) (10 Marks)

Completes task, movement jerky

c) Running forward 10 metres (10 Marks)

Completes task, movements jerky, arm swing regular

d) Standing board-jump (length 1.0cm) (20 Marks)

Completes task, movements jerky, motor control and coordination

e) Throwing and catching ball combination (10 Marks)

Completes task, pattern is smooth, wrong foot forward, uses straight hand, does not watch ball, cannot catch ball because of poor hand coordination

f) Throwing at a 2m target (10 Marks)

Completes task, no coordination, accuracy skills, estimation skills

g) Kicking a ball at a 5m target (10 Marks)

Completes task, no coordination, accuracy skills, use of force

h) Balancing on the right and left foot (20 s) (10 Marks)

Completes task, no coordination, movement jerky

i) Clapping and walking in rhythm (10 Marks)

Completes task, no coordination, accuracy skills

## Appendix V: Resource checklist

A checklist on availability of play facilities and equipment in pre-schools.

Name of school:_____

Type of school: _____

| Outdoor Play Facilities and Equipment | Availability | | Quantity | | Quality |
|---|---|---|---|---|---|
| | Available | Not available | Adequate | Not adequate | A.Good B.Poor |
| Playground | | | | | |
| Tunnels | | | | | |
| Climbing ladders | | | | | |
| Climbing frames | | | | | |
| Swings | | | | | |
| See-saw | | | | | |
| Slides | | | | | |
| Balance beams | | | | | |
| Balls | | | | | |
| Tyres | | | | | |
| Rings | | | | | |
| Hoops | | | | | |
| Ropes | | | | | |
| Logs | | | | | |
| Bean Bags | | | | | |

## Appendix VI: Introduction Letter

**UNIVERSITY OF NAIROBI**

**COLLEGE OF EDUCATION & EXTERNAL STUDIES**

**SCHOOL OF EDUCATION**

**DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY**

Telephone: 020-2500759, 020-2500760 P.O. BOX 30197, 00100 NAIROBI

020-2500762, 020-2460056 P.O. BOX 92, 00902 KIKUYU

13 October 2016

**TO WHOM IT MAY CONCERN**

**RE: OPONDI LILIAN AKOTH REG. NUMBER E57/71964/14**

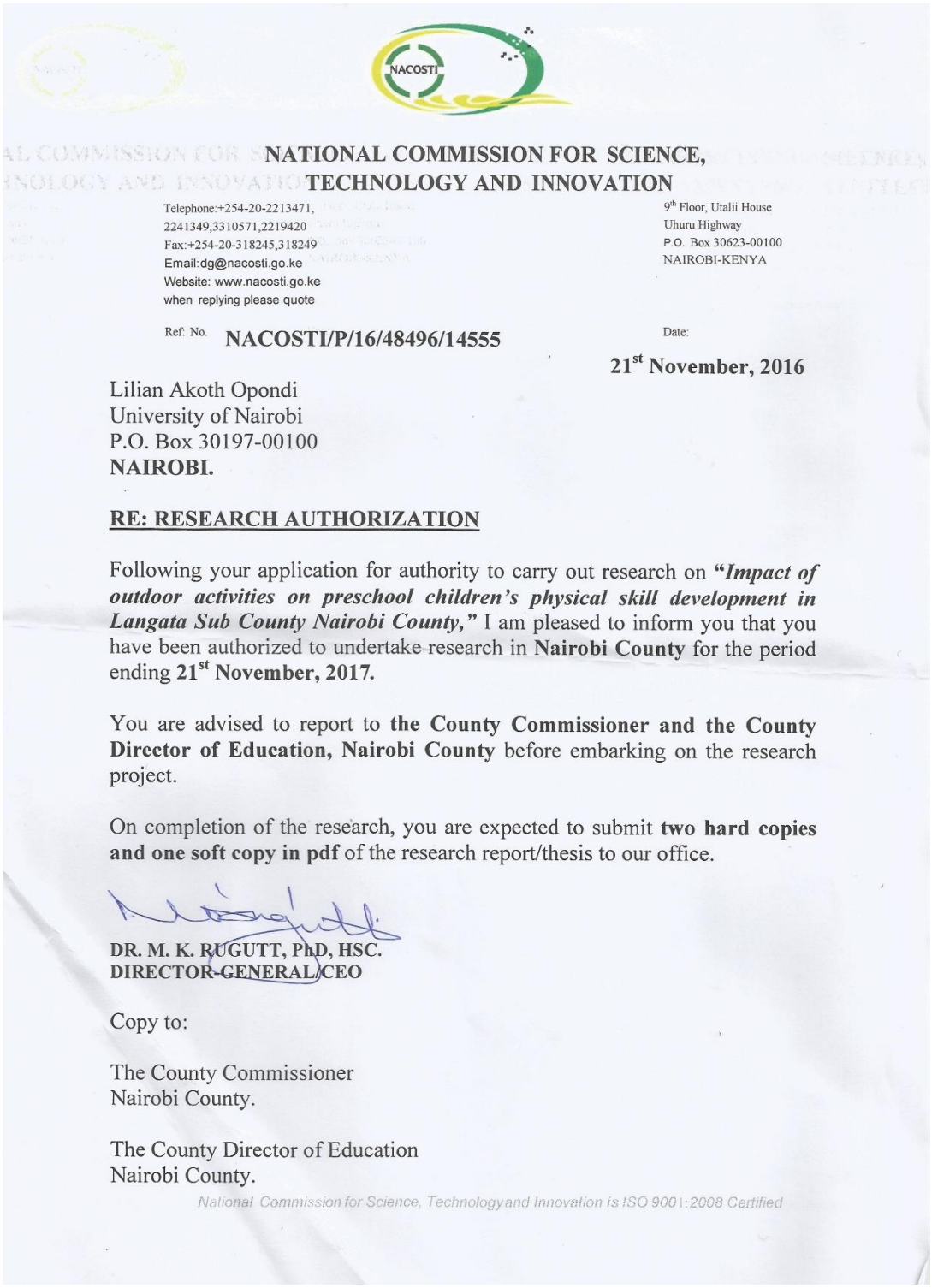
This is to certify that **Opondi Lilian Akoth Reg. Number E57/71964/2014** is a student of the University of Nairobi, Department of Educational Communication and Technology pursuing M.Ed degree in Early Childhood Education. She has completed the course work and now working on the project. Her project is titled **"Impact of Outdoor Activities on Pre-School Children's Physical Skills Development in Langata Sub-County, Nairobi, Kenya."**

Any assistance accorded to her will be highly appreciated.

Chairman

**PROF. PAUL ODUNDO**
**CHAIRMAN**
**DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY**

## Appendix VII: Research Authorization Letter



NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION

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

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

Ref: No. **NACOSTI/P/16/48496/14555**

Date: **21st November, 2016**

Lilian Akoth Opondi
University of Nairobi
P.O. Box 30197-00100
**NAIROBI.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on ***"Impact of outdoor activities on preschool children's physical skill development in Langata Sub County Nairobi County,"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **21st November, 2017.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi 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. RUGUTT, PhD, HSC.**
**DIRECTOR-GENERAL/CEO**

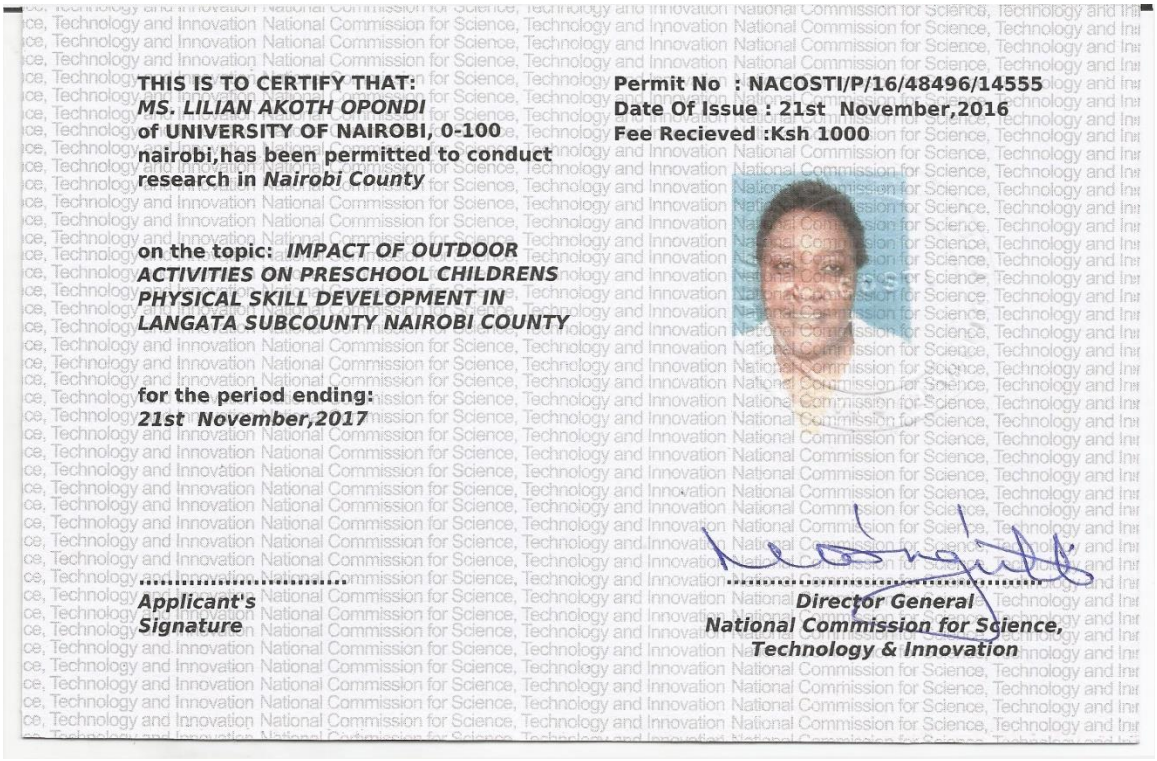
Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

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

## Appendix VIII: Research Permit



THIS IS TO CERTIFY THAT:
*MS. LILIAN AKOTH OPONDI*
of UNIVERSITY OF NAIROBI, 0-100
nairobi,has been permitted to conduct
research in *Nairobi County*

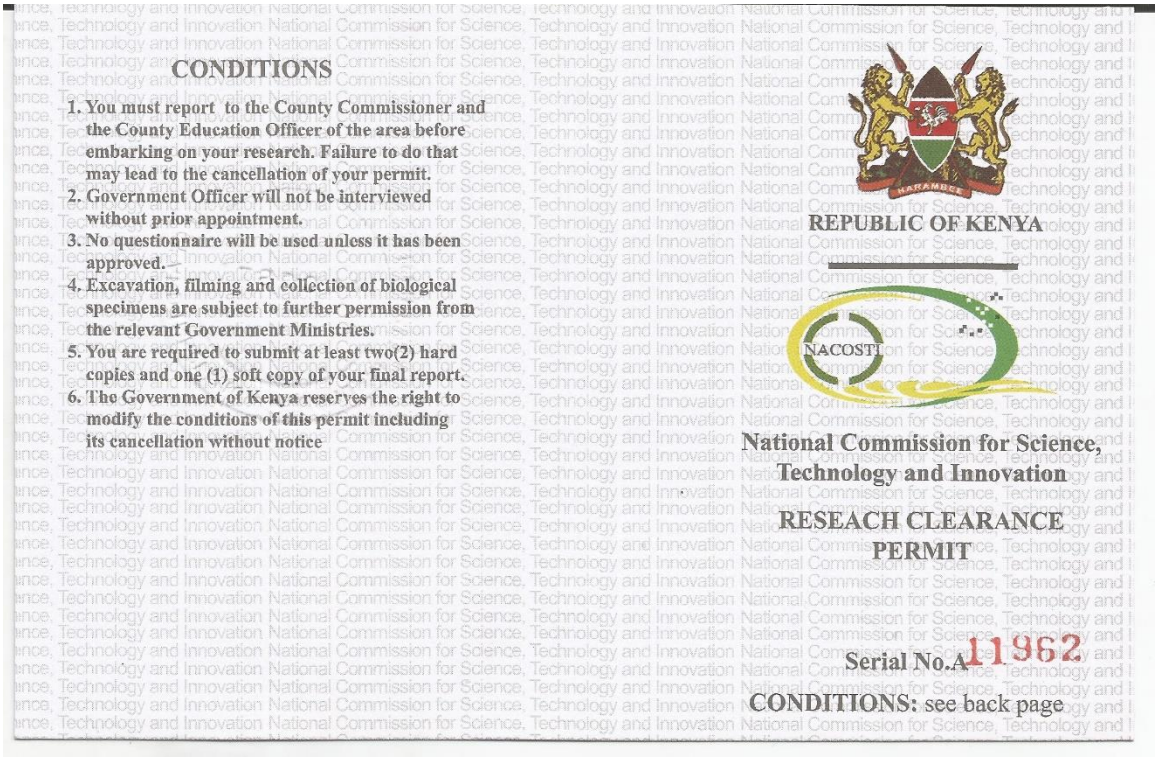
on the topic: *IMPACT OF OUTDOOR ACTIVITIES ON PRESCHOOL CHILDRENS PHYSICAL SKILL DEVELOPMENT IN LANGATA SUBCOUNTY NAIROBI COUNTY*

for the period ending:
*21st November,2017*

Permit No : NACOSTI/P/16/48496/14555
Date Of Issue : 21st November,2016
Fee Recieved :Ksh 1000

.....
*Applicant's Signature*

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



CONDITIONS

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

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEACH CLEARANCE PERMIT

Serial No.A 11962

CONDITIONS: see back page