UTILIZATION OF OUTDOOR PLAY IN AN ENHANCED HOLISTIC DEVELOPMENT OF THE CHILD IN EARLY CHILDHOOD DEVELOPMENT EDUCATION CENTRES IN BOMET EAST SUB-COUNTY, KENYA

BY

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DECLARATION

Declaration by Candidate

This thesis is my original work and has not been presented for a degree in this or any other university. No part of this thesis is to be reproduced without the consent of the author and/or Moi University.

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DEDICATION

This thesis is dedicated to my loving Mum, Mrs Rosemary Ndugi whose unconditional love, moral support and understanding which made me determined to complete my study. Special dedication to my late Dad, Mr Julius Ketuturi Ndugi for his selflessness in my upbringing and great inspiration to my education more so in early levels of education.

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ABSTRACT

Outdoor play activities are important in the early life of the child; they enhance holistic development and creativity which are useful in later life and career choice of the child. Available literature indicated that early childhood development and education (ECDE) teachers perceive outdoor play as a waste of time, yet it was a central aspect as required in the ECDE curriculum in Kenya. The purpose of this study was to investigate the utilization of outdoor play in enhancing holistic development of the child in the ECDE centres in Bomet East Sub-County, Kenya. The objectives were to: establish the different types of outdoor play facilities available; assess the appropriateness of outdoor play facilities; evaluate the roles of the teacher in organizing outdoor play activities; examine the outdoor play activities that pupils' participate in; identify the challenges ECDE teachers faced during outdoor play activities in Bomet East Sub County. The study utilized Maria Montessori's theory of play which emphasized that children be moved from being dependent to perform activities independently. Descriptive survey design was employed. A sample of 36 schools was selected through stratified and random sampling methods, with a target population of 36 Head teachers/Deputy head teachers and 36 ECDE teachers, one from each sampled school, who were selected using purposive sampling and simple random sampling techniques respectively giving a total of 72 participants. The data collection tools were; the observation schedule, interview schedule and questionnaire, all administered by the researcher. Descriptive statistics were used to analyse quantitative data while qualitative data was analysed using thematic analysis procedures. Data was presented in tables, figures and narrations, guided by the study variables. The findings revealed that most ECDE centres had no outdoor play equipment, there was inadequate materials. The main roles of the ECDE teachers included: planning, supervising and ensuring full participation among children. Children participated in guided outdoor play activities daily during midmorning besides running around the field. Challenges faced include: lack of adequate play facilities and materials, interference among other learners. The study recommended all ECDE stakeholders to pull efforts together to provide for adequate and relevant outdoor play equipment and materials for holistic development and a research be done on perception of teachers on how parents can enhance outdoor play activities. The beneficiaries of this study include the teachers at the early childhood education in applying outdoor play in an enhanced holistic development, preschool administration in assessing the importance of children outdoor play and hence provide adequate facilities for play, curriculum developers in evaluating the curriculum and putting emphasis on children's outdoor play and development of play materials, ECDE teacher training institutes in training teachers on the importance of children outdoor play and holistic development and Teachers may also benefit from this study as the findings may call for in service course to train them on different types of outdoor play that promote holistic development among ECDE children and to formulate efficient strategies and worthwhile approaches to make learning through play more comprehensive and retentive.

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ACRONYMS AND ABBREVIATIONS

CDE-	County Director of Education.
CEO	County Education Office
CIEM	Curriculum Instruction and Educational Media
CPD	Childhood Psychosocial Dysfunction
ECDE-	Early Childhood Development Education
KICD	Kenya Institute of Curriculum Developments
MCE	Minister of Culture and Education
MOE-	Ministry of Education
NACECE-	National Centre for Early Childhood Education
NACOSTI-	National Commission for Science, Technology and Innovation
NAEYC-	National Association for the Education of Young Children.
NCOF-	National Child Obesity Foundation
NHMS	National Health Morbidity Survey
NPSI-	National Playground Safety Institute
NRPA-	National Recreation and Park Association
PPMCCF	Pearson's Product Moment Correlation Coefficient Formula
TV-	Television
UNCRC-	United Nations Convention of the Rights of Child
S	School
T	Teacher
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

Outdoor play activities are important in the early life of a child. They enhanced holistic development and creativity which is useful in later life and career choice of the child (Waller et al, 2017). Available literature show that ECDE teachers perceived outdoor play as a waste of time yet it is a central aspect as required in the ECDE curriculum in Kenya and this study form the thrust of the discussion. This chapter contained the background to the study, statement of the problem, objectives of the study, research questions, hypotheses of the study, justification of the study, significance of the study, scope of the study, limitation of the study, assumptions of the study, theoretical frame work, conceptual framework, definition of key terms and chapter summary.

1.2 Background of the Study

Outdoor play has held a prominent place in the field of early childhood education since its beginning with German educator Friedrich Froebel's kindergarten and nursery school movement in the early 1800s (Gray & MacBlain, 2012). Additionally, children have a positive regard for outdoor activities, preferring to be outside than in the classroom. The desire to learn from the outside environment encourages children to explore as many details as they could from the setting at their disposal. Children's preferences for outside learning are consistent with general perceptions that the outdoors provides a useful environment for play (Ernst, 2018).

Children learn about themselves and the world around them when they spend time outside as they established a sense of self in connection to the natural environment (Burke et al., 2021), and Similarly, Yildirim and Akamca (2017) mentioned that other

than the classroom, activity-based, integrative, and exciting learning environments gave emotional experiences and opportunities for children to work independently as it provides a broader area for children to interact, allows children to try things out, explore, and experiment without the confines of an indoor setting (Marchant et al., 2019). Besides that, outdoor play help children acquire abilities relevant to scientific inquiry, such as inference, measurement and observation (Yildirim & Akamca, 2017).

Interaction with nature has been linked to essential aspects of classroom engagement but it has also been linked to improved academic attainment in greener schools and classrooms (Kuo et al., 2018). Similarly, Bento and Dias (2017), asserted that outdoor play is a compelling and natural activity that promoted social, physical, cognitive and emotional well-being. It helped children to learn and thrive by providing a platform to experiment, think creatively, solve problems and cooperate with others. Furthermore, (Mendez, 2020), asserted that providing children with opportunities for unstructured outdoor play allows them to decide what to do and who to do it with thus promotes confidence, autonomy and self-esteem hence it implied that play is important as it provide a primary foundation for learning, exploring, problem solving and building an understanding of the world and the role within.

Outdoor play enhance cognitive development as it promotes healthy development and critical thinking skills. It reinforce memory, help children understand cause and effect and according to Mendez (2020), outdoor play help children explore the world and their role in it.

Outdoor play benefit children in their fine and gross motor skills development. “Play benefit motor development by encouraging movement and the understanding of spatial relations, promoting motor planning skills, supporting balance and dexterity,” Mendez

(2020). Outdoor play help children understand and process their emotions and new concepts through play, Wheeler, (2020). Furthermore, Sando and Sandseter (2020) defined outdoor play from the perspective of the child as self-controlled, voluntary, unlimited, natural, free and fun and based on Wray et al. (2020), adults should appreciate the environment and be available to offer children the support they needed in their endeavours during outdoor play however, Bento and Dias (2017) caution that outdoor play should be flexible, child-led and based on ideas that revolved around the interests and discoveries of the child.

Currently, the preschool curriculum in Kenya points out that play and physical activities give children opportunity for physical exercise, thus facilitating proper blood and oxygen circulation in their body (KICD, 2017) and it was allocated 8 lessons per week; 5 for Movement Activities, 3 for Art and Craft and Music.

Recent studies conducted in Kenya on children's outdoor play seemed not to focus on the utilization of outdoor play in an enhanced holistic development of the child, but rather they emphasised on outdoor play and children development as well as other aspects and these studies include; Determinants of quality outdoor play environment in early childhood development centres (Wanjiku, 2016), Effects of outdoor activities on development of pre-school physical skills (Akoth, 2016) and Ochanda (2015) on Impact of play equipment on children participation in outdoor play, thus, the present study sought to establish utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-County, Bomet County, Kenya.

1.3 Statement of the Problem

Despite the known benefits of outdoor play time to children's holistic development, evidence suggest that opportunities for children to engage with outdoor play, natural

environments may continue to decrease in a constantly evolving socio-environmental world due to technological advancement and urbanisation in the current era, where children are more likely to spend their time indoors with their gadgets as compared to their older counterparts (Zaid et al., 2021). Consequently, with the emergence of various electronic activities and games, the opportunity for outdoor and nature-based play has decreased (Burke et al., 2021). Based on a recent study by Raj et al. (2022), in Selangor, Malaysia, more than 90% of children under the age of five surpassed the WHO's recommended screen time for their age group. The majority (66%) of them watched television, followed by handheld gadgets and computers. This was a concerning issue that should be taken care of since it could reflect their emotional and mental well-being.

According to Twenge and Campbell (2018), high screen users were substantially more likely to exhibit poor emotion control, including maintaining composure, inability to complete tasks, low curiosity, and difficulty in forming friends. Today's children are in danger of developing Childhood Psychosocial Dysfunction (CPD), which might limit their mental and emotional well-being in daily life as stated by (Soliman et al., 2020). According to the National Health Morbidity Survey (NHMS) in 2015, 12.1% of Malaysian children have mental health disorders (Malaysian Mental Health Association, 2019) due to lack of outside play exposure.

Although there was limited research on outdoor play in the Malaysian context, in a recent study by Abd Rahim et al. (2020), teachers positively viewed nature-related activities as an opportunity to engage in immersive and meaningful activities everyday on educational activities about and in nature. However, they did not organise nature-related activities, particularly outdoors, since parents were afraid that their children

would be wounded or got dirty which was the main impediment to implementing these activities, thus, it was important to conduct this study to determine the importance of utilization of outdoor play in an enhanced holistic development of the child in ECDE centres.

Many international researchers argued that outdoor play experiences, particularly those that offer the opportunity to engage with nature (Kahn & Weiss, 2017) and involve risk-taking (Brussoni et al., 2015) has an important role in children's learning and development and loss of these opportunities had been noted to have a negative impact on children's health, learning, and development. Recent studies conducted in Kenya on children's outdoor play seemed not to focus on the utilization of outdoor play in an enhanced holistic development of the child but rather they emphasis on outdoor play and children development as well as other aspects and these studies include; determinants of quality outdoor play environment in early childhood development centres (Wanjiku, 2016), effects of outdoor activities on development of pre-school physical skills (Akoth, 2016) and Ochanda (2015) on impact of play equipment on children participation in outdoor play, thus, the present study sought to establish utilization of outdoor play in enhancing holistic development of the child in ECDE centres in Bomet East Sub-County, Bomet County, Kenya.

1.4 Purpose of the Study

The main aim of this study was to investigate the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-county, Bomet County, Kenya.

1.5 Objectives of the Study

The specific objectives of the study were to:

i Establish different types of outdoor play facilities available in an enhanced holistic development of ECDE children.

ii Assess the appropriateness of outdoor play facilities in an enhanced holistic development of ECDE children

iii Evaluate the roles of the teacher in organizing outdoor play activities utilised in an enhanced holistic development of ECDE children

iv Examine the outdoor play activities that ECDE children participate in an enhanced holistic development

v Identify the challenges ECDE teachers faced during outdoor play activities in an enhanced holistic development of ECDE children

1.6 Research Questions

i What are the different types of outdoor play facilities available in an enhanced holistic development of ECDE children?

ii What are the appropriateness of outdoor play facilities in an enhanced holistic development of ECDE children?

iii What are the roles of the teacher in organizing outdoor play activities utilized in an enhanced holistic development of ECDE children?

iv Which of the outdoor play activities did pupils' participate in an enhanced holistic development?

v What are the challenges that ECDE teachers face during outdoor play activities utilized in an enhanced holistic development of ECDE children

1.7 Justification of the Study

There has been a decline in children's creativity since 1990, especially in younger children, as the findings of (Okoruwa, 2017) who established that pre-school children spend more time in classrooms and their outdoor play time was limited. However, children have a positive regard for outdoor activity, preferring to be outside than in the classroom. The desire to learn from the outside environment encourages children to explore as many details as they could from the setting at their disposal. Children's preferences for outside learning were consistent with general perceptions that the outdoors provided a useful environment for play (Ernst, 2018). This implied that children love to play and educators should bear this in mind when devising ways to ensure that they support children in their adventure activities.

However, Hunter et al. (2020) argued that educators do not have sufficient time and adequate conversations regarding the preparation and planning of outdoor learning thus many educators believed that more time was required to prepare for indoor activities compared to outdoor play. This was related to the notion that during outdoor activities, teachers had the opportunity to take a break with the children in their care (Hunter et al., 2020).

Similarly, (Okoruwa, 2017) indicated that many teachers had a lot of paperwork to do which inhibited them from bringing children out of the classroom for outdoor activities thus the researcher pointed out that children should participate in outdoor play as stipulated in the ECDE curriculum on daily basis, hence this study shade some light on utilization of outdoor play and holistic development of the child in ECDE centres in Bomet East Sub County with a view of finding out which outdoor play activities and facilities were utilized, teachers roles, participation and challenges faced by ECDE

teachers in an enhanced holistic development of ECDE children in Bomet East Sub-County, Bomet County, Kenya.

1.8 Significance of the Study

This study investigated the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East sub-county, Bomet County, Kenya. The findings of this study may be important in a number of ways. First, the findings might be important to the teachers of early childhood education in applying outdoor play in an enhanced holistic development among the ECDE children. The findings of the study might also be important to the preschool administrators in assessing the importance of children's outdoor play and hence provide adequate facilities for play to enhance holistic development among ECDE children.

To the curriculum developers in evaluating the curriculum and putting emphasis on children's outdoor play and development of play materials. To the ECDE teacher training institutes in training teachers on the importance of children outdoor play and holistic development. Teachers may also benefit from this study as the findings may call for in service course to train them on different types of outdoor play that promote holistic development among ECDE children and to formulate efficient strategies and worthwhile approaches to make learning through play more comprehensive and retentive, since ECDE teachers are considered as the backbones and pillars of knowledge, skills and attitudes needed to enhance holistic development of children through active participation during outdoor play time and make meaningful reviews with the current ECDE curriculum and if possible they revise or amend with the current curriculum including the instructional strategies and activities that improved and enhanced the outdoor play and holistic development of ECDE children.

Other researchers in the field of early childhood education stand to benefit from this study as it may form a basis for further research in the area of outdoor play and holistic development among ECDE children.

1.9 Scope and Limitation of the Study

This section indicated the scope and limitation of the study as follows:

1.9.1 Scope of the study

This study was carried out in Bomet East Sub-county, Bomet County, Kenya from January to March 2022 and the study was limited to Head teacher and one ECDE Teacher from the sampled schools. The number of ECDE centres in Bomet East Sub-County are one hundred and twenty whereby one hundred were public ECDE centres and twenty were private ECDE centres. The sampled ECDE centres were thirty six.

1.9.2 Limitation of the study

Although the current study makes a significant contribution, it also has some limitations. The study was conducted using a very small selection of participants selected through appropriate sampling procedures. It was also conducted in Bomet East Sub-county of Bomet County and all the factors do not allow for the findings to be generalized to the entire population of Bomet County. Furthermore, the selection comprised of Head teachers, ECDE teachers leaving out other stakeholders such as parents, school managers and other teachers.

Additionally, the school normal activities and programs slowed down the response rate among the participants since they were engaged in other school calendar activities that overloaded them with work. Due to the Covid 19 pandemic where guidelines were adhered to, some ECDE teachers group their children in small groups of about five

children especially in private ECDE centres where playground was limited to the number of children and observing them during their outdoor play activities took a lot of time and also posed a challenge in identifying specific child and its development hence the researcher was compelled to take longer time than as stipulated by the ECDE teacher.

Finally some participants were not willing to participate in the study despite clear explanation on the purpose of carrying out the research as it was meant for academic purpose only and their information was treated confidential citing that the importance and benefits in participating in the study was not necessary hence took a lot of time in responding to the questionnaires and interviews.

1.10 Theoretical Framework

The researcher used The Outdoor Play Inventory theory developed by Kuh et al. (2013). This inventory covered types of social play, the general type of play, and the specific play object children engaged with at any given time. The inventory was designed for recording individual observations of children over a 30-minute time period. The observer marked the multiple types of play a child engaged in. This pattern repeated for the duration of the play period. If the play period went over 30 minutes, the observation was stopped at the 30-minute mark. If the play period was less than 30 minutes, the observation ended when the children got in line to go back to their classroom. The researcher used this inventory to observe children in all settings, recording observations of each child in a systematic manner. For the purpose of this study, the outdoor space was defined as an area with large playground equipment and artificial surfacing under that equipment. The space contained no or minimal natural elements to which children had direct exposure (e.g., grass, trees, plants, rocks, and manipulative objects).

Thus the main role of the ECDE teacher in this study was that of observant in that observation of available outdoor play facilities and when ECDE children are participating in their outdoor play activities in order to ascertain whether there is any development enhanced while engaging themselves with outdoor play facilities and materials and with other children. Through these outdoor play activities, ECDE teacher ensured full participation among children as well as identifying some challenges they faced during these outdoor play activities and later identify means to overcome these challenges hence enhance the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres.

1.11 Conceptual Framework

The conceptual framework, Figure 1.1 shows the utilization of outdoor play in an enhanced holistic development. Holistic development was the dependent variable thus independent variables determine utilization of outdoor play. Moreover, the conceptual framework of this study also had intervening variable that is the type of ECDE centre and this intervening variable may affect the utilization of outdoor pay in an enhanced holistic development.

The dependent variable in this study is outdoor play and is influenced by the independent variables that is availability of different types of outdoor play facilities, appropriateness of outdoor play facilities, roles of teachers in organizing outdoor play activities, effective pupils' participation in outdoor play activities and challenges teachers faced during outdoor play activities for holistic development of the child in ECDE centres and are moderated by intervening variable that is the type of ECDE centre.

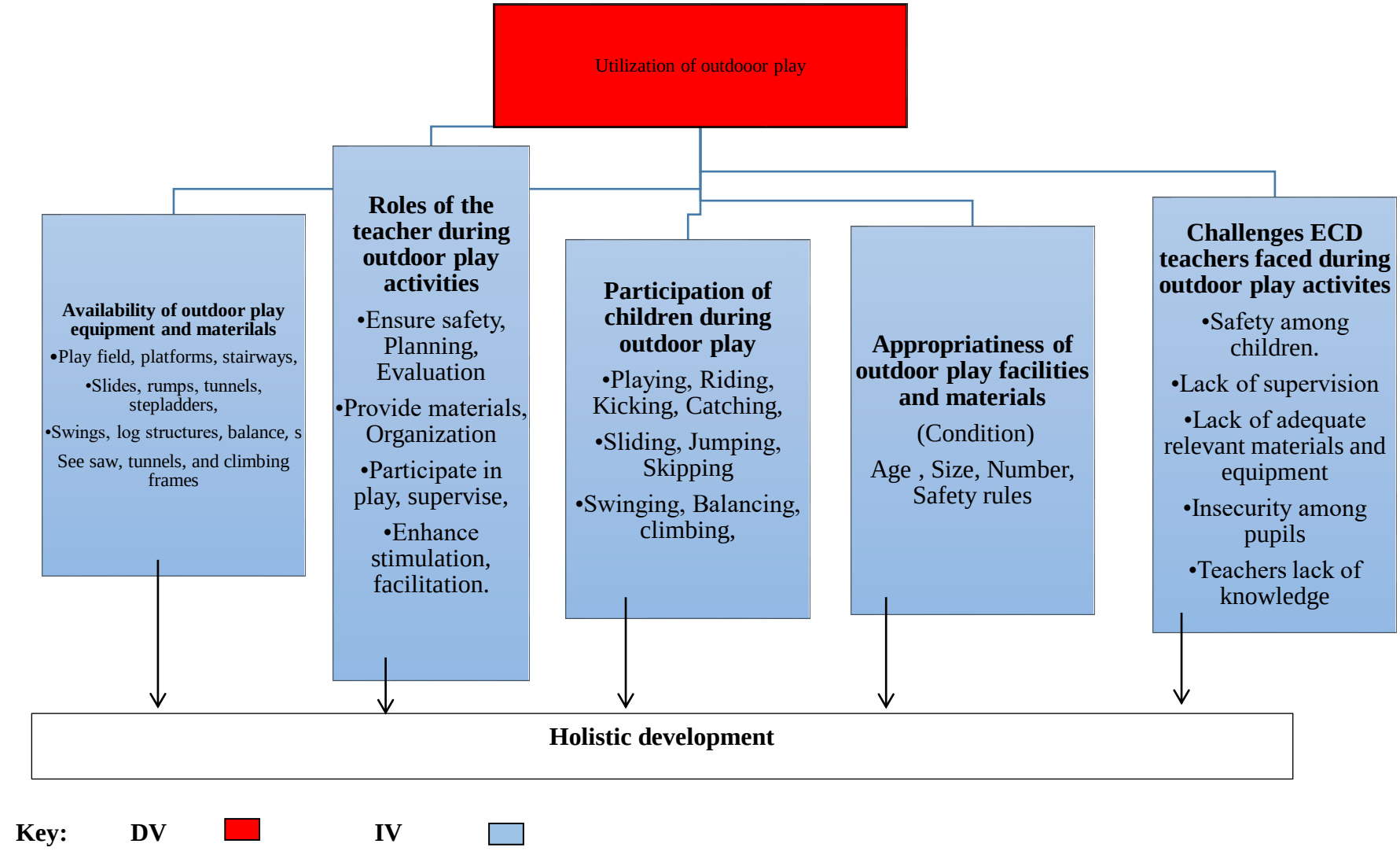

Figure 1.1: Conceptual Framework
Source: Researcher's own Conceptualization

1.12 Operational Definition of Terms

Appropriate facilities: Facilities that provide stimulation, prolong play and provide rich opportunities that allow each child to exercise choice and to grow safely at their own rate especially in the areas of problem solving, language acquisition, literacy, numeracy, social, physical and emotional skills which are in good state of repair and maintenance, adequate surfacing that was fall-absorbent.

Challenges in Outdoor Play: These are the problems that teachers faced while supporting children in their outdoor play activities, for example lack of enough playground, inadequate equipment, large number of pupils and insecurity among the children.

Child : A young learner in pre-school aged below 8 years.

Development : Development was used to refer to gradual improvement of performance from one activity to the other in outdoor play activities.

Equipment: Equipment was used to refer to physical apparatus meant for outdoor activities.

Facilities available : Availing suitable play and learning materials which do not create boredom and cannot lead to aggression due to inadequacy and discourage fighting over the few that are available. They enhance holistic development as they motivate children to participate in quality play which consequently improves their holistic development.

Group : Group was referred to pupils in one class who live and share one thing in common.

Growth : Growth was used to refer to understanding of how outdoor activities are performed successfully by children without the help their teachers.

Holistic Development : Holistic development was used to refer to a child who has developed in all the aspects of development which include mentally, spiritually, cognitively, morally and socially and has gradually improved from one outdoor play activity to the other successfully.

Learning : The process of knowing how to inculcate play in pre-school syllabus activities

Material : Any safe object used by children while playing and learning

Outdoor play : Tasks a child is involved in outside the classroom to help acquire relevant knowledge, skills and attitude and life skills.

Outdoor play activities: Activities done in open air by children within the confines of ECDE centres, which they find stimulation, well-being, happiness and help them grow physically, intellectually, socially, morally and emotionally upright.

Participation : Involving a pupil to take part in outdoor activities for acquisition of knowledge, skills and attitude that aided in intellectual, physical and socio-emotional development.

Play materials : Anything that a child used to enhance enjoyment and learning.

Play : Activities performed by children for the sake of enjoyment and without pressure to do so.

Roles of teachers : Activities that teachers engaged themselves in supporting ECDE children to participate in their outdoor activities. For

example provision of materials for play, encouraging high quality play, structuring play environments, ensuring safety of the learners in terms of appropriateness of facilities, other roles which enhanced stimulation and well-being among children.

Utilization : Utilization is used to refer to the use of physical equipment and material for indoor and outdoor activities for the intended purpose which resulted to desired outcomes during outdoor play activities.

1.13 Chapter Summary

This chapter has been organised systematically in order to provide information that relate to the topic of the study. The first section was the introduction which relates to the background of the study, the statement of the problem, the purpose of the study which has been linked to the objectives and questions of the research. The justification of the study and significance of the study has been highlighted. The scope of the study and limitation also has been highlighted. Assumption of the study, Theoretical framework, Conceptual framework and operational definitions of terms has been presented also. The next chapter present literature review which entails the information related to the studies of utilization of outdoor play in an enhanced holistic development of the child in ECDE centres which enabled the researcher to identify the existing gap and later try to fill it with the current study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter present literature review on utilization of outdoor play in an enhanced holistic development of the child in ECDE centres and the literature on the objectives of various outdoor play facilities available in ECDE centres, the appropriateness of outdoor play facilities, the roles of the teacher in organization of the outdoor play activities, the pupils participation in outdoor play activities and challenges ECDE teachers face during outdoor play activities and the dependent variable is holistic development of the child in early childhood development education centres.

According to Yıldırım and Akamca (2017), they noted that outdoor education provides pre-school children with opportunities to perceive the world from different perspectives. Children can benefit from interactions with nature, supported by outdoor play. Hedges, (2001) and Montessori, (1936) view play from somewhat different perspectives. Hedges (2001) in his study noted that "uninterrupted, free-flow play has the capacity to promote depth of learning in children, teachers must be actively involved in the play in order for this to occur". In contrast, Montessori (1936) dismissed what some termed "play" as frivolous.

She believed that goal-oriented activity was motivating for children and she called this behavior work. She implemented on organized environments with materials that were comfortable and to a child's scale for them to complete their work of developing skills (Montessori, 1936). Her words gave us insight into her perspective and remain current hence according to Montessori, education was a natural process spontaneously carried

out by the human individual, and was acquired not by listening to words but by experiences upon the environment.

According to Deaver and Wright (2018), children had authentic opportunities to interact with other children during outdoor play and these experiences enhanced children's social skills and increase problem-solving skills. Additionally, Dennis et al, (2019) stressed how outdoor play increases children's abilities to solve problems and to experience hands-on learning in science, technology, engineering, and mathematics.

For these reasons, the current study sought to establish whether preschool teachers in Bomet East Sub- County provide enough play materials for their children's outdoor activities for holistic development, thus, this chapter present literature review on the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres and the literature on the objectives of various outdoor play facilities available in ECDE centres, the appropriateness of outdoor play facilities, the roles of the teacher in organization of the outdoor play activities, the pupils participation in outdoor play activities and challenges ECDE teachers faced during outdoor play activities and the dependent variable of holistic development of the child in early childhood development education centres.

2.2 Play and Holistic Development

According to Nizrina, (2019) Playing in an outdoor playground brings a lot of benefits for early childhood. Children can do some activities such as walking, running, hanging, jumping, climbing to train their motoric skills for their bodies to be strong enough to perform physical tasks in everyday life. In addition, playing in an outdoor playground trained children to be self-controlled in order to manage their emotion. This was due to the habituation of carrying out physical activities that makes them capable of managing

and controlling their emotions well. All this time, the various studies conducted in Indonesia related to outdoor play mostly discussed the children's development aspect, the study of outdoor play benefits for rough motoric skills (Nizrina, 2019), as well as the children development in cognitive, language, emotional, and social aspects (Herlinda, 2018) thus this study aims at determining utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-County.

Outdoor play activities could provide holistic development opportunities for children through hands-on experience and being active players. Children also reflect various outdoor abilities, which may not be possible indoors (Bento & Costa, 2018). Furthermore, Coates and Pimlott-Wilson (2019) highlighted children's view that they have contrasting emotions between being in classroom and in outdoors. Therefore, having opportunities to access outdoor areas and providing outdoor activities were essential for children, and such activities were generally chosen by children according to their imagination and interest (Sandseter & Lysklett, 2017). The context of Turkey was quite different than general conditions around the world. In the school context of outdoor activities, play and science activities were the activities mostly conducted in school gardens by teachers (Mart et al, 2015).

It was important that children learned that there are both successes and failures in life. Outdoor play activities provides a platform to experience life's victories and downfalls. When engaged in outdoor activities, children are exposed to materials and experiences that they might not have interacted with before. Such engagements therefore, took place through trial and error as children have opportunities to understand the workings of outdoor facilities and equipment. Through trial and error, children might succeed in

some of their interactions and fail in others. However, Bento and Dias (2017) argued that attempting to prevent all risky situations denied children the opportunity to learn and deal with unpredictable environments hence might result in children's lack of confidence to autonomously overcome challenges.

Additionally, Slining et al. (2021) assert that obesity in childhood is associated with long term health risks. Therefore, poor motor competence is categorized as a noticeable weakening in the performance of motor skills. This is counterproductive to childhood development as poor motor competence has a significant long term impact on behavioural, social and emotional development hence, for ECDE children, motor competence is an important contributor to health and well-being.

In a study in Whales, Davies and Hamilton (2016) researched the use of formative and summative assessments in outdoor settings. They recorded the benefits of outdoor learning for preschool children. In their study, they utilized questionnaires and semi-structured interviews to collect information from teachers and teaching assistants who had been working with children for three months to 40 years. Some questions included the areas of learning the teachers assessed outdoors, why teachers chose to assess indoors or outdoors, assessment methods and trainings the teachers had received about utilizing outdoor environments.

Additionally, these early childhood professionals' results were like those of Yildirim and Akamca (2017) and of Khwaengmek et al. (2021) which stated that, "…assessing children in the outdoor environment had value,". Also, "The benefits of outdoor learning to children's development were clearly recognized by practitioners…" (Davies & Hamilton, 2016). Results indicated how all areas of learning and development within early childhood curriculum could be implemented and assessed in outdoor spaces

(Davies & Hamilton, 2016), hence it was not clear whether outdoor learning had value in Kenya based on their findings thus this study sought to determine the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-County, Bomet County, Kenya.

2.2.1 Play and Physical Development

Movement play during outdoor play sessions encouraged children to practice gross and fine motor skills. Kroeker (2017) argued that outdoor and indoor play could be complementary, as each environment exposes children to different conditions. Kroeker (2017) also highlighted the significance of child-initiated play to promote skill development. The development of motor skills benefitted children in the long run in several ways. According to McClelland and Cameron (2019), executing the physical movements required for learning necessitates deliberation and planning. Gross and fine motor skills support school functioning, with visuomotor and fine motor proficiency leveraged in preschool in the gripping of pencils and crayons, the handling of materials and paper and symbol recognition.

As McClelland and Cameron (2019) asserted that visuomotor skills, which involve the coordination of motor movements with visual perception, were positively linked to mathematics and literacy outcomes. Additionally, outdoor play benefited children in the development of their fine and gross motor skills by encouraging movement and the understanding of spatial relations, promoting motor planning skills, and supporting balance and dexterity. It also supported gross motor skills such as energy, stamina, flexibility and body awareness (Mendez, 2020).

Based on the studies concerning physical activity, childcare facilities played a major role in the amount of physical activity children received (Byrd-Williams et al., 2019).

To maximize children's physical activity while in childcare, it is important for them to participate in outdoor play experiences that are both focused on fundamental motor skills and continued movement (Wadsworth et al., 2020). Activities such as throwing a ball into a hoop and kicking a ball into a goal would develop children's fundamental motor skills. Dancing, running, and hopping would increase children's physical activity by keeping them moving

Outdoor activities enhanced physical development of the child as it is an important part of children's lives as they were instrumental in "promoting children's wellbeing and development" (Brussoni et al 2017). For example, providing children with opportunities for outdoor activities enabled them to increase physical movements and competence (McFarland, et al 2014) as well as supporting cognitive, physical, social, and emotional development (Kuo, et al 2019). When these aspects of development are combined, children's understanding and exploration skills are supported as well (Bento & Costa, 2018). Outdoor activities can provide holistic development opportunities for children through hands-on experiences and being active players.

Additionally, in 2017, Monti et al. researched the outcomes of outdoor play in early childhood classrooms. In their study, they implemented Outdoor Education in Italian nursery schools. The control group included 160 young children who participated in "traditional educational activities," (Monti et al., 2017). The test group included 84 children who participated in an outdoor education program. When comparing the control and the test groups, researchers determined the children who participated in outdoor education had significantly higher improvements in areas such as "cognitive, emotional, social, and fine motor skills," (Monti et al., 2017). Similarly, Yildirim and Akamca (2017), stressed the importance of outdoor play in facilitating learning in

several areas of early childhood development, including fine motor development (Monti et al., 2017).

Based on multiple studies, young children benefit from outdoor play and experiences hence through outdoor play, children not only gain academic knowledge, social and emotional skills but also fine motor development which strengthened the muscles in their hands and fingers (Monti et al., 2017), therefore this study sought to identify whether availability of outdoor play facilities and materials and children's participation in outdoor play in an enhanced holistic development promote physical development among children or not thus filled the existing gap and adds educational knowledge.

2.2.2 Play and Cognitive Development

A study in Thailand, indicated that pre-service teachers completed questionnaires about their experiences with science, technology, engineering and math in outdoor learning. The results indicated pre-service teachers' positive beliefs about children learning science, technology, engineering, and math in outdoor settings. Also teachers emphasized how students simultaneously learned academic information while having fun in the outdoors (Khwaengmek et al., 2021).

In Kuo et al.'s (2018) study, the students retained a higher level of classroom engagement after lessons in nature, allowing teachers to teach for nearly twice as long without interrupting instruction to refocus students' attention. When children are more engaged in the classroom, they would better understand and retain the information. This can be supported by Bjorge et al. (2017), whereby the students were more engaged in the activity and were more involved in seeking answers about the topics discussed, indicating high participation.

Besides that, a recent study by Khan et al. (2020) showed that outdoor space with purpose and learning opportunities can improve academic performance. Children taught outside had considerably higher exam results in science and math than children taught indoors (Khan et al., 2020). Thus, it is essential to include academic achievement in this study to identify the impact of outdoor learning on children's cognitive development. Scientists have discovered critical proof that playful behaviour had a very positive and powerful effect on the human brain (Weisberg, et al 2016). This proof was so powerful that the effects to which children play did not affect their capacity to learn rather improve on their academic performance.

A growing body of science continuously discover relationships between play in children and their development in various areas, including language, math, spatial skills, executive functions, scientific thinking, emotional and social development (Weisberg et al., 2016). One of the reasons that make play so vital was that it encompassed the clear-cut contexts that ease the learning process**.** Play impacted significantly on early brain development. Seventy-Five percent of the brain develops after a baby was born. Scientists approximated that children from new born age up to 17 years old spend between three percent and 20 percent of their day playing (Chrwasty et al., 2016). This was with the exclusion of children who were severely malnourished, disabled, or deprived. Play has so many benefits to the development of the brain among children.

Similarly, researchers have established that when children are involved in play, it enabled them to identify words much easier, read and comprehend words from texts that they had been exposed to during play. Play could be incorporated with skill-enhancing techniques such as reading out loud or enacting characters (Edwards, 2017).

When children play while enacting some characters from various sources, they develop listening and language skills that prepare them to comprehend the written words. Even after learning to read, it is still essential for adults involved to spur children to sound out words correctly and get the meaning. Just like reading skills, play also builds children's math skills which are metric in nature. This means that children first had to develop critical thinking skills that could prepare them for this arduous learning experience (Gol-Guven, 2017).

Play develop the brain's executive function which refer to the mental skills that allow us to manage time and attention, to plan and organize, to remember details, to decide what was and was not appropriate to say and what to do in a given situation (Hartwell-Walker, 2018). Children who have a well-developed executive function do well in school, got along with others well and make good decisions. This means that if children are not provided with opportunities to play, it in turn effects how the neurons in their brain develop, which in turn affect their day-to-day functions and their entire life. Children need to be given opportunities to play so that they can develop these neurons thus it is a ripple effect on a child and his or her rest of their life if they are not given a variety of opportunities for play.

Outdoor activities are crucial to prevent the potential detrimental repercussions of over-exposure to sedentary activities. The nature of outdoor play include purposeful movement, students report a sense of calmness, safety, happiness and relaxation during outdoor play (Webb & Linda, 2018), which would benefit their mental health. Besides that, students who struggle in the classroom might benefit from using the outdoors for diverse learning experiences.

Play promote healthy development and critical thinking skills. It reinforced memory, help children understand cause and effect and explore the world and their role in it. Children learn how things fit together through play. It allows them to use their senses and encourage exploration and curiosity hence the foundation of intellectual development and cognitive processing. Play also inspire children to pretend, create and imagine. Creative and open-ended play help children conceptualize, brainstorm and exercise critical thinking skills, (Mendez, 2020).

In addition to fine motor skills, studies shows how outdoor play increases students' cognitive skills, including those found in science, technology, engineering, and math. In a 2016 study in Hamilton County, Ohio, researchers concluded that outdoor learning and physical activity did not limit academic learning opportunities but rather enhanced them, (Tandon et al., 2016). According to Yildirim and Akamca's (2017) study of how outdoor experiences impacted pre-schoolers' development, they mimicked these results. Their findings show how experiences in nature positively impact cognitive abilities in preschool children (Yildirim & Akamca, 2017). The authors encourage early childhood educators to incorporate outdoor learning into their school days. Additionally, they recommend teachers' pre-service training and professional development trainings to include information about utilizing outdoor spaces to enhance children's learning (Yildirim & Akamca, 2017).

Based on studies concerning the cognitive and academic benefits of outdoor play, early childhood professionals should provide outdoor play experiences for their students and utilize the outdoor environment for both formative and summative assessments (Davies & Hamilton, 2016). Outdoor play positively impact students' academic abilities

(Yildirim & Akamca, 2017) and 21st Century skills relative to science, technology, engineering, and math (Khwaengmek et al., 2021).

With relevance to this study, a study by Ojuondo (2015) 'Aspects of play that contributed towards the development of language skills in Kisumu Central Sub County' that examined types of play, availability of play materials, roles of the teacher during play and school policy on play as elements of play that influence 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 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 would enhance learners academic performance.

The study recommended that the Government should conduct in service courses for teachers on the use of play activities. Therefore this study sought to determine the utilization of outdoor play in an enhanced holistic development of the child whether the cognitive development of the child is enhanced through exposure to varied play facilities, materials and activities will achieve high scores compared to those exposed to limited play activities thus form the thrust of the discussion of this study in identifying the knowledge gap and filling the existing gap.

2.2.3 Play and Social Development

Play is also important for social development because it helps children learn how to interact with others. Through play children develop an understanding of social expectations and rules, and play provides opportunities to share thoughts and ideas, to listen and to compromise (Mendez, 2020). In addition, children's social development

would improve as they work together and look for information during the outdoor learning process (Bjorge et al., 2017). Additionally, outdoor learning could enhance classroom conduct by increasing students' willingness to study and build confidence. Based on past research studies, outdoor learning positively impact children's well-being and help their psychosocial development. Cameron and McGue (2019) observed that kids were more likely to have an overall better attitude after being exposed to the outdoors based on the attitude assessment that they took and agreed that having the choice to work outside encourage them to work harder.

In an outdoor setting, children would be able to discover new objects, colours, shapes, smells, and phenomena. This would enable them to inquire and discuss with their friends and teachers, which develop their perspective-taking abilities, referring to when a child discover that their perspective differ from that of others and that others differ from their own (Rodrigues, 2021). Perspective-taking is essential for children's social development since it help them build good connections with others. Besides that, an outdoor setting is the best way for children to interact with their friends since they are able to move around. Making friends, sharing, solving problems and engaging in groups are vital social skills to acquire throughout childhood. Children who do not seek help when they need it or who rely too much on it are in danger of developing developmental difficulties (Moore et al., 2016). Based on these findings, the researcher sought to identify whether teacher’s roles during outdoor play, provision of adequate and relevant facilities and materials can enhance social development of the child in the ECDE centres of Bomet East Sub-County thus forms the discussion of this study.

2.2.4 Play and Emotional Development

Play help children understand and process their emotions. Children process their emotions and new concepts through play (Wheeler P, 2020.) When a child lose a game, for example, they learn to process anger, sadness and grief. Play also help build confidence and encourage the development of their identity and self-esteem. Children develop positive self-image as they play. They develop skills and abilities that make them feel good about themselves. Additionally, through supported interaction with other children, they learn how to make good friendships, co-operate and resolve conflicts peacefully. These attributes would provide a secure platform from which children can achieve at school and in later life.

2.3 Facilities available in the ECDE centre

The complete facilities and infrastructure available as well as their maximized usage are some supporting factors in the success of the education program (Nuraini, 2020; Permendikbud 2014). The Regulation of The Minister of Culture and Education no. 137 of 2014 mentions the implementation of good quality Early Childhood Education which requires adequate facilities that meet the standards of Early Childhood Education. This was in accordance with the mandate stated in the article 45 paragraph 1 of Law no. 20 of 2003 that each formal or non-formal education unit provide facilities and infrastructure that fulfill the needs of the educators, based on the growth and development of students' potential in physical, intellectual, social, emotional, and psychology hence if the setup of the outdoor playground is carried out safely and attractively, it encouraged children to be enthusiastic about adventure and to explore all their potential, (Park & Riley, 2015).

Preschool environments should promote effective and healthy educational activities. Schoolyards and playgrounds can be structured in ways that align to the development of children's cognitive and motor skills. Playgrounds should include such facilities as sand pits, traffic training, and playground equipment. The environments in which children play can either encourage or discourage creativity and learning. Outdoor play environments should be design to promote innovative thinking. According to Coe (2020), equipment can either be portable or fixed. Fixed equipment may include slides, swings, ladders and other play structures, while portable equipment may include toys, balls, ropes, tyres and gardening tools.

The complete facilities and infrastructure available as well as their maximized usage are some supporting factors in the success of the education program (Nuraini, 2020). Similarly, according to Public playground safety handbook, (2015), show that adequate facilities should be provided for outdoor play activities which include Platforms, ramps, stairways, ladders, balance, climbing ladders, rings, slides, logrolls, see-saws, spring rockers, and swings. Under Platforms, they should be generally flat, Openings in platforms should be provided to allow for drainage and minimize the collection of debris. On some composite structures, platforms are layered for a child to access the higher platform without steps or ladders. The space between the stepped platforms should follow the recommendations to minimize entrapment hazards in enclosed openings.

Based on public playground safety handbook, (2015), Ramps, stairways, rung ladders, and step ladders each have different recommendations for slope and tread dimension, but the steps or rungs always should be evenly spaced - even the spacing between the top step or rung and the surface of the platform. Openings between steps or rungs and

between the top step or rung and underside of a platform should prevent entrapment. When risers are closed, treads on stairways and ladders should prevent the accumulation of sand, water, or other materials on or between steps. Climbing equipment should allow children to descend as easily as they ascend. One way of implementing this recommendation is to provide an easier, alternate means of descent, such as another mode of egress, a platform, or another piece of equipment. For example, a stairway can be added to provide a less challenging mode of descent than a vertical rung ladder or flexible climbing device, for preschool-age children, offering an easy way out was particularly important since their ability to descend climbing components develop later than their ability to climb up the same components, (Public playground safety handbook, 2015).

Handrails on stairways and step ladders are intended to provide hand support and to steady the user. Continuous handrails extended over the full length of the access should be provided on both sides of all stairways and step ladders, regardless of the height of the access. Rung ladders do not require handrails since rungs or side supports provide hand support on these more steeply inclined accesses. Handrails should be available for use at the appropriate height, beginning with the first step. The vertical distance between the top front edge of a step or ramp surface and the top surface of the handrail above it should be appropriate. Public playground safety handbook, (2015).

Climbing equipment is generally designed to present a greater degree of physical challenge than other equipment on public playgrounds. This type of equipment require the use of the hands to navigate up or across the equipment. Horizontal (overhead) ladders are a type of climber designed to build upper body strength. They are designed to allow children to move across the ladder from end to end using only their hands. Also

vertical sliding poles are more challenging than some other types of climbing equipment. They required upper body strength and coordination to successfully slide down the pole. Unlike other egress methods, there is no reverse or stop, so a child cannot change his or her mind. Children who start a sliding pole must have the strength to slide the whole way or they would fall. Sliding poles should be continuous with no protruding welds or seams along the sliding surface, the pole should not change direction along the sliding portion.

Log rolls helped older children master balance skills and increase strength. Children must balance on top of the log as they spin it with their feet. Log rolls should have handholds to assist with balance. Merry-go-rounds are the most common rotating equipment found on public playgrounds. Children usually sit or stand on the platform while other children or adults push the merry-go-round to make it rotate. In addition, children often get on and off the merry-go-round while it was in motion. Merry-go-rounds may present a physical hazard to preschool-age children who has little or no control over such products once they are in motion. Therefore, children in this age group should always be supervised when using merry-go-rounds. Public playground safety handbook, (2015).

The typical seesaw consist of a board or pole with a seat at each end supported at the center by a fulcrum. Because of the complex way children are required to cooperate and combine their actions, fulcrum seesaws are not recommended for toddlers or preschool-age children. Partial car tires, or some other shock-absorbing material, should be embedded in the ground underneath the seats, or secured on the underside of the seats. This would help prevent limbs from being crushed between the seat and the ground, as well as cushion the impact.

Children can be expected to descend slide chutes in many different positions, rather than always sitting and facing forward as they slide. These other positions should be discouraged at all times to minimize injuries. Slides might provide a straight, wavy, or spiral descent either by means of a tube or an open slide chute. They may be either free-standing, part of a composite structure, or built on the grade of a natural or man-made slope. Regardless of the type of slide, avoid using bare metals on the platforms, chutes and steps. When exposed to direct sunlight the bare metal might reach temperatures high enough to cause serious contact/burn injuries in a matter of seconds. Provide shade for bare metal slides or use other materials that might reduce the surface temperature such as, but not limited to, plastic or coated metal. Public playground safety handbook, (2015).

Merewether (2015), Zamani (2017), and Clevenger and Pfeiffer (2022) agreed that some outdoor play spaces are essential for children's enjoyment and learning. Based on their results, children need large, grassy areas to play and exercise and spaces for dramatic play and sensory activities (Clevenger & Pfeiffer, 2022). Additionally, it is essential to consider children's interests and needs when designing an outdoor space. With relevance to this study, it is not known whether the availability of outdoor play facilities, materials and space enhance enjoyment, learning and holistic development or not hence the researcher was compelled to carry out this study which fill the existing gap and add educational knowledge to the study.

In Kenya, a study on relationship between playground and cognitive development in Kisumu City, found out that sampled school had various play materials in their playgrounds. However, these materials were not suitable for children's cognitive development (Kerich & Okioma, 2015). The study recommend that teachers and head

teachers need to provide variety of play equipment and plan, organise and reassure play spaces to enable children participate in multiple games. When the playground is fully equipped, children tend to have interest to play and as a result, they develop holistically therefore it is not known whether ECDE teachers in Bomet East Sub County provide the relevant equipment and materials for holistic development of the child or not thus the researcher sought to identify the various equipment and materials provided for outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-County, Kenya which forms the discussion of this study and fill the existing knowledge gap.

2.4 Roles of the Teacher during Outdoor Play Activities in ECDE

Teachers are among the key caregivers for preschool age children as they spend more time with children than parents. This imply that they determine when to take children out for outdoor play and how much time ECDE children should spend in the playgrounds.

Findings in the study done by Okoruwa (2016) on outdoor play for children and teachers perceptions indicated that teachers reported that their roles in children's play were; supervising children to ensure they were safe, coaching them on how to play and resolving children disputes that might arise in the event of play. The study further noted that half of teachers involved in the study believed it was important to join children in play while others asserted that instead of involving themselves in children outdoors, they would rather use that time for other school duties. Despite these findings being interesting, the study was conducted in Nigeria and therefore they cannot be generalised in Bomet East Sub- County ECDE Centres. Therefore, this study sought to examine the

roles of teachers in Bomet East Sub-County, Bomet County, Kenya during children's outdoors as well as their holistic development.

According to a study by Okoruwa (2017), half of teachers in Nigeria believed that co-playing with children was crucial while others stated that they would rather use children play time for other school duties rather than playing together with them. The fact that 50 per cent of teachers denied to participate in children play was a reasonable indication that some pre-schoolers take part in outdoors without the help or guidance of a teacher or an adult.

A study of teachers' involvement in different settings found different degrees of teacher participation (Brussoni et al., 2017). It was important to remember that teachers form part of the environment in which children conduct their outdoor activities. Teachers could, therefore, promote play by ensuring that the play environment, whether schoolyard or forest, is equipped with the necessary amenities that children can engage with to test their abilities thus the current gap in adult responsibility results in a lack of standards to guide the development of appropriate play environments.

In Kenya, play is an integral part of Competency Based Curriculum (CBC) particularly in early year's education (pre-primary education). The curriculum stress the need for teachers to expose young learners into different forms of psychomotor activities on a daily basis in order to help them control and coordinate their body parts (KICD, 2017). Recent studies in Kenya regarding outdoor play focused on how children's outdoor play influence their development of both social, emotional, physical and language skills (Akoth, 2016; Ochanda, 2015). While these studies reveal teachers' roles during children outdoor play, they fail to establish the extent to which these roles promote or hinder children participation in outdoor play.

The teacher's role was to observe, guide and assess children's learning. In the first role of observing children, teachers need to know how, when, and what to observe. It is important that the teacher remain objective while doing his or her observations. When a teacher is guiding children's learning, they need to remember that not all children learn or play the same way and so there must be a range of teaching approaches that are used while facilitating children's play. With this in mind, adaptions may need to occur to include all children in play.

As a teacher, facilitating children's learning while observing them, work in small groups of children during certain periods of the day. In an early childhood setting, there are interest areas throughout the classroom, another role for the teacher or adult is to promote learning through these interest areas, explore content and integrate student learning through classroom studies. Additionally, a study done in Kisumu by Ojuondo (2015) on the influence of play on children development of language skills indicated that teachers had a primary role of organising and planning children play activities. In his study, 76.9 per cent of sampled head teachers confirmed the importance of preschool teacher's involvement in children's outdoor play whereby they strongly believed that teachers set a centre stage to children's' play as they select safe materials, supervise and monitor them.

With relevance to this study, based on the related literature reviewed, it is necessary to establish ways in which teachers involved themselves in children's outdoor play in Bomet East Sub-County, Kenya. Furthermore, there is need to determine whether the involvement of preschool teachers in outdoor play has a positive or negative impact on children participation in play in an enhanced holistic development of the child in ECDE centres.

2.5 Appropriateness of Outdoor Play Facilities available in the ECDE

When selecting playground equipment, it is important to know the age range of the children who would be using the playground. Children at different ages and stages of development have different needs and abilities. Playgrounds should be designed to stimulate children and encourage them to develop new skills, but should be in scale with their sizes, abilities, and developmental levels. Use equipment that are manufactured and constructed only of materials that had demonstrated record of durability in a playground or similar setting, Public playground safety handbook, (2015).

In addition, Heavy metal swings are not recommended because their heavy rigid metal framework presented a risk of impact injury, multiple occupancy swings are not recommended with the exception of tire swings, swings that are intended for more than one user are not recommended because of their greater mass, as compare to single occupancy swings, presented a risk of impact injury. Rope swings – Free-swinging ropes that may fray or otherwise form a loop are not recommended because they present a potential strangulation hazard, Public playground safety handbook, (2015). Hence, this study sought to determine whether availability of outdoor play equipment and materials are appropriate to the age of the learners in ECDE centres in Bomet East Sub County, Kenya thus forms a discussion of this study.

2.6 Pupils' Participation in Outdoor Play Activities in ECDE

If the setup of the outdoor playground is carried out safely and attractively, it might encourage children to be enthusiastic about adventure and to explore all their potential (Park and Riley, 2015). It is mandatory for every kindergarten to prioritize and apply the concept of children play safety when they are in the playground, in order to

minimize the risk of injury to the children and enable children to participate fully during outdoor activities.

Based on the studies concerning physical activity, childcare facilities played a major role in the amount of physical activity children received (Byrd-Williams et al., 2019). To maximize children's physical activity while in childcare, it was important for them to participate in outdoor play experiences that are both focused on fundamental motor skills and continued movement (Wadsworth et al., 2020). Activities such as throwing a ball into a hoop and kicking a ball into a goal would develop children's fundamental motor skills. Dancing, running, and hopping would increase children's physical activity by keeping them moving. Playing in an outdoor playground brings a lot of benefits for early childhood. Children could do some activities, such as walking, running, hanging, jumping and climbing to train their motoric skills so their body would be strong enough to perform physical tasks in everyday life hence ECDE teachers should ensure that adequate outdoor play equipment and materials should be encouraged in order to enhance holistic development of the child.

In addition, playing in an outdoor playground trained the children in self-control in order to manage their emotion. This is due to the habituation of carrying out physical activities that make them capable of managing and controlling their emotions well, Nizrina, (2019). Play can also teach life lessons and strengthen relationships with children and adults as well as children and peers (9 Amazing benefits of play, 2018). Play also stimulate ECDE children's imagination and creativity. Studies have shown that kids who are encouraged to use their imagination are more creative in their adult life (Hartwell-Walker, 2018). Encouraging children to play and helping to facilitate their play had long lasting effects on a child's life. Teachers and early education

providers play an important role in providing children with play opportunities and children would benefit from play.

Shepley et al. (2018), found out that children who did not participated in outside activities might experience developmental delays. This section highlights the benefits to preschool children's learning and creativity while engaged in adventure activities. The outdoor environment could inspire children to be curious about nature as they sought to find out more about what they see. Additionally, according to Bento and Dias (2017), the open-ended possibilities of natural materials encouraged children to be imaginative as they offer countless possibilities for play. For instance, children could endeavour to assign new meanings and interpretations to objects, in a process of reinvention. A natural object, such as a stick, for example, can be assigned the characteristics and purpose of a gun. This highlighted how creativity could be enhanced when children are exposed to natural materials. Therefore, adventure activities promote a child's desire to understand and innovate the use and purpose of objects, thus improving their learning capabilities.

Mycock (2020), pointed out that children have more curiosity and asked more questions when they are taken on nature than when they are in the classroom. According to Bento and Dias (2017), playing with water and soil is beneficial to children, as it provide them with opportunities to learn concepts related to science and mathematics. Furthermore, language acquisition is promoted through play with soil and water, as children share the new vocabulary they learn in the course of their endeavours. For instance, as children fill and empty containers with soil and water, they start to become familiar with concepts related to volume, weight and time. In this game of filling and emptying containers multiple times, children learned mathematical and scientific concepts,

without being aware that they are learning. Therefore, adventure activities provide children with opportunities to learn from an early age, which improve their chances of success in adulthood.

Outdoor learning give a positive impact on children's social well-being, as mentioned in Streelasky's (2019) study, who found out that outdoor space offer a context in which children could interact meaningfully, creatively and collaboratively with each other and the environment. Besides that, through outdoor learning, children tend to play with their surroundings including natural loose parts such as leaves and sticks that could be used as interactive tools for learning. It is well known that interactive tools are an effective means of encouraging independent learning (Woo et al., 2021) which enables them to think inquisitively and motivates them to learn more. In addition, the outdoors provide a rich sensory experiences that could help in children's development. It is known that the outdoor environment provide children with a wide range of space to run and play, in addition to its various natural stimuli such as flora and fauna which allow children to think creatively and critically hence promote their development.

In addition, based on Abd Rahim et al.'s (2020) study, outdoor learning gave children more precise and long lasting knowledge about nature than the conventional learning method. It shows that outdoor learning is a good method to develop and enhance their cognition. Thus, children should have frequent and meaningful opportunities to play, explore and learn in natural or urban outdoor settings such as a playground, Neighbourhood Park or nearby open place. However, due to parents' busy schedules and reluctance to allow their children to spend time outdoors due to the danger that might come, it became one reason children nowadays do not engage in outdoor activity anymore (Abd Rahim et al., 2020).

According to Coates & Pimlott Wilson (2019), in their study, concluded that children enjoyed outdoor play and felt autonomy when playing self-selected outdoor activities. Children are likely to participate in imaginative, creative, experimental play when they are allowed to select their own activities while playing outdoors. Additionally, based on the findings of Hu et al, and Chen (2015); Yildirim and Akamca (2017); and Coates and Pimlott-Wilson (2019), preschool children need frequent access to outdoor environments. They need freedom to make their own choices in an outdoor environment that is both enjoyable and educational.

According to (Okurwa, 2017), the study found out that children got time to play only during break time. Further analysis of Okoruwa's study revealed that children in ECD Centres had limited opportunities to play because teachers believed that learning cannot take place during outdoor play sessions. Therefore, there is need for teachers to understand the importance of providing enough time for children outdoor activities thus the current study sought to identify children's participation in outdoor activities and the amount of time allocated during outdoor play activities whether or not it enhanced holistic development of the child in ECDE centres in Bomet East Sub-County, Kenya thus forms the thrust of this study and fills the knowledge gap.

2.7 Challenges Teachers faced during outdoor play activities

Personal safety education for children is very important and need to be introduced at an early age, so that the children develop the skills for their own safety when facing danger. Basic knowledge about safety need to be given before the children start to play, in order to avoid the risk of accidents to the children, as evident at Immanuel Kindergarten where some children suffered from injuries while playing such as: getting hit by friends or playing equipment and falling down. There were children who used the equipment

without complying the rules. This happened due to the lack of understanding and explanation to the children before playing in the outdoor playground (Sholihah et al, 2019).

The safety of each individual piece of playground equipment as well as the layout of the entire play area should be considered when designing or evaluating a playground for safety. Since falls are a very common playground hazard pattern, the installation and maintenance of protective surfacing under and around all equipment is crucial to protect children from severe head injuries. Because all playgrounds present some challenges and children are expected to use equipment in unintended and unanticipated ways, adult supervision is highly recommended, Public playground safety handbook, (2015).

During outdoor play, children are exposed to challenges and risks as they navigated natural objects and materials. Harper (2017) argued that contemporary society is accustomed to ever-growing and ever-present risk perception, leading to significant restrictions on outdoor play. Risk can be defined as any exposure to danger that is likely to result in loss, harm or gain. Similarly, during outdoor activities, children experience a mixture of excitement and fear and demonstrate self-monitoring behaviors as they engage in and avoid risk, creating pleasure and enjoyment.

Some limitations in the use of outdoor activities in preschool education has been identified. Hunter et al. (2020) argued that educators do not have sufficient time and adequate conversations regarding the preparation and planning of outdoor learning. Many educators believe that more time is required to prepare for indoor activities compared to outdoor play. This is related to the notion that during adventure activities, teachers has an opportunity to take a break while children in their care play (Hunter et

al., 2020). The lack of coordination and discussion concerning adventure learning demonstrates a lack of connection between the major stakeholders responsible for steering and supporting outdoor play. Therefore, common understanding is required among educators of the role applied of outdoor teaching methods in the development of creativity and learning among preschool children.

According to Korb (2016), some teachers sometimes failed to accompany their children to play on the playground and instead they get busy with academic work and lesson note writing in the class room. This also is a challenge in that sometimes they can be compelled to replace or repair damaged play facilities by children and this can discourage them from guiding their children during guided outdoor play activities. Many schools for instance host a large number of children such that the play fields are overstretch aside the fact that the fields are open with no facilities that pupils can play with (Korb, 2016).

Furthermore, teachers' professional developments do not focus on learning through play. Many teachers are not adequately prepared to implement play based learning in their classrooms. They may think of learning materials only as workbooks or charts on the wall rather than objects that children can explore and use in their learning. In addition large class sizes that limit children's freedom to play is another factor that affect play in pre-primary setting and changes exist when classes are too large. When more than 30 children are in a relatively small space inside the class room or on the playground, this make it difficult for caregivers to support children's play through active experiences, personal conversation and thought provoking questions (Korb, 2016).

Inadequate maintenance of equipment has resulted in injuries on playgrounds. Because the safety of playground equipment and its suitability for use depend on good inspection and maintenance, the manufacturer's maintenance instructions and recommended inspection schedules should be strictly followed. If manufacturer's recommendations are not available, a maintenance schedule should be developed based on actual or anticipated playground use. Frequently used playgrounds would require more frequent inspections and maintenance, Public playground safety handbook, (2015).

With relevance to this study, it is not known the exact challenges that ECDE teachers faced during outdoor play activities which may include; lack of supervision and coordination, large class size, insufficient time, lack of maintenance on broken equipment thus this study sought to identify the various challenges faced by ECDE teachers during their outdoor play activities in Bomet East Sub-County, Bomet County, Kenya whether holistic development is enhanced irrespective of these challenges or not thus formed the discussion of this study.

2.8 Related Studies

A study on relationship between playground and cognitive development found that sampled schools had various play materials in their playgrounds. However, these materials were not suitable for children's cognitive development (Kerich & Okioma, 2015). The study recommended that teachers and head teachers need to provide variety of play equipment and plan, organise, and reassure play spaces to enable children participate in multiple games, hence the study failed to determine utilization of outdoor play in an enhanced holistic development of the child, hence the current study was done in Bomet East Sub County to determine utilization of outdoor play on an enhanced holistic development of the child to ascertain whether ECDE teachers provide adequate

and appropriate outdoor play equipment and materials, the various roles teachers played, participation , appropriateness and challenges ECDE teachers faced during outdoor play activities.

2.9 Chapter Summary and Knowledge Gap

This chapter has presented the introduction to the chapter, the literature review and identified key study variables, related studies and knowledge gap. Even though many scholars claimed that outdoor play activities were an essential component of the preschool curriculum, it was important to establish how outdoor play could be utilized to enhance holistic development of the child. Studies had been done in developed countries on children's outdoor play and analysis of these international studies generated helpful and comprehensive results however their conclusions and findings were not generalized Bomet East Sub County, Bomet County, Kenya, thus, it was imperative to determine utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub County, Bomet County, Kenya.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter highlighted the research design and methodological procedures that were followed in conducting the study. The description of research design, study area, target population, sample size, sampling techniques and procedures, research instruments, validity and reliability of research instruments, ethical considerations, data collection and data analysis procedures.

3.2 Research Design

This study adopted a descriptive survey design and according to Jackson (2009) this design was used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. In this method, participants answer questions administered through interviews or questionnaires. After participants answer the questions, researchers describe the responses given. In order for the survey to be both reliable and valid it is important that the questions are constructed properly. This design utilizes both quantitative and qualitative data elements, often within the same study and it involves data gathering, organizing, tabulating, depicting and describing.

In this study, descriptive survey design was used to provide description of the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres. It entails some type of evaluation and effort to discover associations between existing and manipulated variables such as the availability of outdoor play facilities and materials, roles of teachers in organizing outdoor play activities, pupil's participation in outdoor play activities, appropriateness of outdoor play activities and assess the challenges

facing teachers during outdoor play activities in relation to the holistic development of the child, hence, all these reasons form a basis of using this research design in the study.

3.3 The Study Area

The study was conducted both in private and public ECDE centres in Bomet East Sub-county, Bomet County mainly for comparison based on the study variables. The Sub-county was one of the five Sub Counties in Bomet County. The Sub-county borders Chepalungu Sub-county to the West, Bomet central Sub County to the North, Narok County to the south and Nakuru County to the East. The study sub-county comprised of five educational zones namely; Chemaner, Kembu, Longisa, Kipreres and Merigi and the study was undertaken in all the five zones.

According to Cosmas et al (2016) in their study, they found out that curriculum does not support the use of play in early childhood education, similarly ECD policy does not support the use of play activities in teaching at pre-school. They recommended that ECD centres need to improve on play environment to ensure that there were facilities on playground that enhanced the use of play in fostering the development of the pre-schooler. Based on this, the researcher was compelled to investigate on the existing gap on utilization of outdoor play in an enhanced holistic development of the child in Bomet East Sub-county, Bomet County.

Furthermore, there is a high population of ECDE centres compared to other constituencies in larger Bomet County as shown in Table 3.1 which posed a challenge in relation to outdoor play equipment and materials and holistic development of the child in the ECDE centres. In addition, there is no single research study that has been done in the area of the study relating to outdoor play in an enhanced holistic development of the child in ECDE centres hence this study sought to add educational

knowledge and filled the existing gap on the utilization of outdoor play in an enhanced holistic development of the child in the ECDE centres in Bomet East Sub-county which formed the discussion of this study.

Bomet County in general comprised of 560 ECDE centres both public and private and each Sub County comprise of the total number of ECDE centres in total as shown in

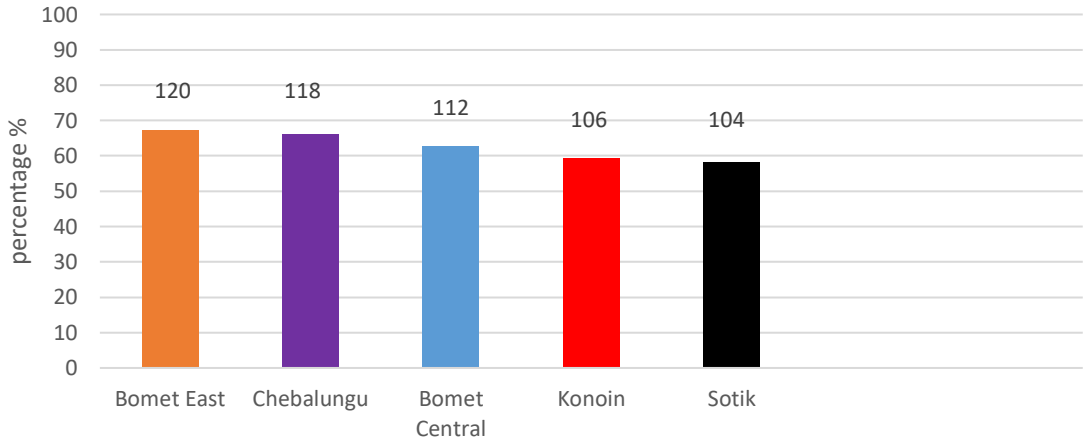

Figure 3.1: Number of ECDE Centres in Bomet County
Source. Department of Education, Bomet County, (2020)

3.4 Target Population

The target population referred to the specific group relevant to a particular study. Mugenda and Mugenda (2003) explained that a population is a group of individuals or objects that have the same form of characteristics. They are the totality of cases that conform to certain specifications which define the elements that are included or excluded in the target group. According to Ogula, (2005), a population refers to any group of institutions, people or objects that have common characteristics. It is a group of study subjects that are similar in one or more ways and which form the subject of the study in a particular survey. A target population is that population to which a researcher wants to generalize the results of a study, hence the target population in this study

comprised of 120 ECDE centres (100 public and 20 private) in Bomet East sub-county as shown in Table 3.1.

Table 3.1: Target Population

Respondents Constituencies	(ECDE Centres)
Chemaner	20
Kembu	30
Longisa	20
Merigi	30
Kipreres	20
Total ECDE centres	**120**

Source: Community Development Fund Office, Bomet East Sub-county (2021)

3.5 Sample Size and Sample Procedures

The sample frame of the study includes a representative sample of the individuals living in the area of study and at least 30% of the total population is representative (Borg & Gall, 2003). Thus, 30% of the accessible population is enough for the sample size so long as it is large enough to allow for reliable analysis and provide desired level of accuracy. Determination of sample size in this study was shown in Table 3.3. Stratified sampling technique was used to divide the schools into public and private ECDE centres. Simple random sampling was used to select children and teachers from the selected schools. According to Creswell (2011) in this technique, the researcher select participants so that any individual has an equal chance /probability of being selected from the population, and any bias in the population is equally distributed among those chosen, hence ECDE teachers were selected through simple randomly to participate in the study while Head teachers were selected through purposive sampling and according to Patton (2006), purposive sampling focuses on particular characteristics of a population that are of interest and this best enabled the research to answer the research question.

From the sampled ECDE centres, 1 ECDE teacher was selected through simple random sampling to participate in the study, since most ECDE centres have more than one teacher. ECDE teachers were involved in this study because they are the curriculum implementers who are supposed to engage learners in outdoor play activities that are recommended by KICD to be participated in daily basis. The Head teacher was the respondent from the sampled ECDE centres and they were selected through purposive sampling because they are the school administrators and are involved in purchasing of the outdoor play equipment and materials making a total of 36 ECDE teachers and 36 Head teachers. The researcher identified all these participants by using random numbers, numbering all the participants of the population and then calculating the sample required as shown in Table 3:2

Table 3.2: Sample Frame

Type of ECDE Centre	**Target Population**			**Sample Size**		
	No. of Schools	**Head Teachers**	**ECDE Teachers**	**No. of Schools**	**Head Teachers**	**ECDE Teachers**
Public	100	100	100	30	30	30
Private	20	20	20	6	6	6
Total	120	120	120	36	36	36

3.6 Data Collection Instruments

Data collection instruments involved the techniques that were adopted by the researcher during data collection process. In order to meet the objectives of the study, triangulation was enhanced where various instruments were used to collect data and they include the observation checklist, interview schedule and the questionnaire and they were discussed hereafter. Triangulation was enhanced to minimize inadequacies found in one-source of data collection, and to confirm the same data so as to enhance the level of accuracy of the instruments. Additional sources of information often give more insight into a topic and inconsistencies in data sets were easily recognized. Multiple sources provide

verification and validity while complementing similar data based on triangulation which refers to the mixing of data or methods of collecting data so that diverse viewpoints or standpoints cast light upon a given topic such as the utilization of outdoor play in an enhanced holistic development of the child in the ECDE centres under this study.

3.6.1 Observation Checklist

This method involves human or mechanical observation of what people actually do or what events take place during a particular situation. “Information is collected by observing process at work” (Kombo &Tromp, 2006). Observation of human behaviour provides an opportunity to come to conclusions based on our observations, to generate explanations and understandings and even to come up with predictions. The observation schedule was used to collect data on the availability of outdoor play facilities and materials, ECDE children interaction with these outdoor play facilities and materials, teachers engaging children during outdoor play time, and ECDE children amongst themselves during play activities.

The observation schedule in this study was manned by the researcher herself by observing outdoor play equipment and materials that were available, their condition in terms of quantity and quality as shown in Appendix II. The researcher used a (tick) on material and equipment available and use a (cross) on materials and equipment not available and gave a description on them in terms of quantity and quality whereas Appendix III showed elements that the researcher observed as learners undertook their outdoor play activities. In this way the researcher observed whether the learners could do physical activities which include jumping, running, sliding, climbing, racing with tyres , skipping, balancing, following rules of the play, consoling with others, taking

turns with others in the play, enhancing creativity, communicating and making decision. While undertaking this observation, the researcher sought information by way of her own direct observation without asking clarifications from the respondents.

3.6.2 Interview Schedule

According to Kothari (2004), the interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. In this study an interview schedule which was a set of questions that the researcher asks the respondent during the interview, were administered to the ECDE teachers from the sampled ECDE centres, whereby 36 ECDE teachers were interviewed in this study. These interview schedules were structured. Structured interview schedule is a tool that has a set of questions that the interviewer asks in order to obtain some information from the respondents and this was appropriate in this study because it made it possible in obtaining data that was required to meet the set objectives.

According to Mugenda and Mugenda, (1999), the researcher helped the respondents by clarifying the questions in order to get relevant answers and this enabled the researcher to get opportunity to establish rapport, explain the purpose of the study and meaning of items that might not have been clear. It leads to more responses, accurate information collected, free from biases, personal contact between the researcher and the respondent, more difficult situation can be studied and it was used across all the respondents.

This study employed structured interview schedule to answer the research questions by providing a guide to help in exploring the research objectives. This was because Structured interviews allowed for focus on specific aspects of the phenomena that the researcher targeted and make variables of the research clearer meeting each and specific objective of the study. Also they yielded high response rate because it was difficult for

respondents to completely refuse to answer questions and it also gave a room for the interviewer to clarify and elaborate the purpose of the research and effectively convince the respondents about the importance of the research, hence the respondents gave more complete and honest information.

3.6.3 The Questionnaire

According to Kombo &Tromp (2006) a questionnaire is a research instrument that gathers data over a large sample, it can reach a large number of subjects who are able to read and write independently. A questionnaire enhances anonymity of respondents and uniformity of questions, thus allowing comparability. Questionnaire was preferred for collecting data in this study because the questions, wordings and sequence were fixed and identical to all respondents. Head teachers were the participants in filling in the questionnaire in this study**.**

Both open ended and closed ended questionnaires were used in this study. Open ended questionnaires were employed by the researcher as it helped in recording more data as the respondents could point out what was important for them in their own words and methods hence standard responses of items were obtained from the Head teachers making it possible to compare between sets of data. It also allowed the participants to give their own opinion on the issue at stake Mugenda & Mugenda, (2003). Also they are cheap as they do not require as much effort from the questioner as verbal or telephone surveys and often have standardized answers that make it simple to compile the data.

Similarly closed ended questionnaires were adopted. These were questionnaires in which they were definite, concrete and pre-determined questions given to the respondents. The questions were presented with exactly the same wording and in the

same order to all respondents of the study across the 36 sampled ECDE centres in the study area. This was done for the purpose of standardisation to ensure that all respondents replied to the same set of questions.

In order to make the open ended questionnaire effective and to ensure quality to the replies received, the researcher paid attention to the question-sequence in preparing the questionnaire. A proper sequence of questions in this study reduced considerably the chances of individual questions posed to the respondents being misunderstood. The question-sequence must be clear and smoothly-moving, meaning that the relation of one question to another should be readily apparent to the respondent, with questions that were easiest to answer being put in the beginning then followed by the complex questions. The researcher after administering the questionnaires to the respondents agreed on a particular time to collect their responses.

3.7 Validity and Reliability of the Research Instruments

This section presents the pilot study, validity and reliability of the research instruments.

3.7.1 Pilot Study

Piloting is the process of testing data collection tools before undertaking the actual study to make sure that any errors identified are recorded. Piloting provides a final assurance that the tools contained no errors and affirmed that they would capture the information that was sought by the researcher, (Boyce, 2002). The researcher conducted a pilot study in Bomet Central Sub-County in order to pre-test the instruments just before the actual data collection. The researcher visited 2 preschools which were not involved in the main study, 1 public and 1 private ECDE centres. The purpose of the pilot study was to reveal deficiencies in the design of the proposed study or procedure

so that they could be addressed before the actual study. It was also meant to test the effectiveness of the data collection tools and make the necessary adjustments.

The researcher visited the pilot schools and after sampling the respondents, administered Questionnaires to the Head teachers, Interviews for ECDE teachers. Observation was done by the researcher herself and fill the observation checklist by observing availability of outdoor play equipment and materials in terms of quantity and quality and also observed pupils as a group during outdoor play activities three times a day to ascertain whether outdoor play activities enhanced holistic development. Two ECDE teachers were interviewed by the researcher herself from the two sampled ECDE centres and two Head teachers were given the questionnaire to fill. Afterwards, the validity and reliability of these instruments was checked and corrections made

The information obtained from the pilot study helped in testing the consistency, reliability and validity of the tools to be used in the actual study. The main advantage of conducting a pilot study was that it was likely to give advance warning about where the main research project might failed and where research protocols might not be followed or proposed methods or instruments were inappropriate or too complicated for the study.

3.7.2 Validity of the Research Instruments

According to Kombo & Tromp (2006), validity of a test is a measure of how well a test measures what it is supposed to measure. In order to ensure this, the validity was used where the items in the questionnaire were checked against the research objective. An expert judgment was also sought from the supervisor who assisted the researcher in the validation of the instruments. The validity helped in identifying items in the questionnaire that needed restating and removing those that were not important in the

study. Content validation process was used to determine the extent to which a set of test tasks provides a relevant and representative sample of the domain of tasks under consideration. According to Creswell (2011) content validation was done so that the tools we construct using this specification aids in constructing a test that produces results that represent both the content areas and the objectives we wish to measure.

Additionally, Criterion-related validity was adopted to measure the validity of the research instruments. This related to the researcher's ability to predict some outcomes or estimate the existence of some current condition concerning the utilization of outdoor play in enhancing holistic development of the child in ECDE centres. This form of validity reflected the success of measures that were used and the concerned criterion must possessed elements of relevance whereby the criterion is relevant if it was defined in terms of what the researcher judge to be the proper measure. Also it has to be free from bias whereby this freedom from biasness was attained when the criterion gives each subject an equal opportunity to score well. The criterion has to be reliable in that it would be stable in its application throughout the study. Finally, the chosen instruments would have to provide availability of information specified by the criterion which must be available throughout the study.

3.7.3 Reliability of the Research Instruments

Creswell (2011) asserts that reliability of measurements concerns the degree to which a particular measuring procedure gives similar results over a number of repeated trials. It also refers to the consistency of an instrument to yield similar results at different times. The researcher used test re-tests method in order to establish the reliability of the instruments. Test re-test method is applied where a test is given to respondents then after some time the test is given again and gives the same results. The researcher made

a comparison between answers obtained in the test and re-test of questionnaires. A Pearson's Product Moment Correlation Coefficient formula was used.

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[N\sum(x)^2 - (x^2)][N\sum(y)^2 - (y^2)]}}$$

According to Mugenda & Mugenda (1999) a correlation coefficient expresses the degree of relationship between two sets of scores by numbers ranging from +1.00 from -1.00 to +1.00 to -1.00. A perfect positive correlation is indicated by a coefficient of +1.00 and a perfect negative correlation by a coefficient of -1.00. He further asserts that a correlation coefficient of .00 lays midways between these extremes and indicates no relationship between the two sets of scores. A coefficient of 0.80 or more will simply show that there is high reliability of data hence a reliability coefficient of 0.75 was obtained in this study and it was in line with the recommendation of (Mugenda & Mugenda, 2003).

3.8 Data Collection Procedures

According to Kombo and Tromp (2006), a researcher requires a research permit before embarking on the study. The researcher proceed to collect data from the respondents after seeking clearance from the department of Curriculum Instruction and Educational Media, Moi University, School of Education and served with research permit. The researcher sought authorization to conduct the research from the National Council of Science and Technology, Nairobi; the County Education Office and at the Sub-County Education Office in Bomet County. Thereafter Permission was sought from the head teachers of the various schools selected beforehand for familiarization, informed the Head teachers and ECDE teachers about the purpose of the study and book appointments to undertake data collection on agreed dates. The researcher agreed with

ECDE teachers that during the actual visit, children would be observed three times in order to ascertain whether holistic development of the child has been achieved.

During the visit, the researcher embarked on administering of research tools to the sampled respondents. The researcher observed the availability of outdoor play facilities in terms of their availability, quantity and quality in relation to the age and size of the ECDE learners, and also observed the ECDE children playing as a group three times when they were undertaking their outdoor play activities in enhancing holistic development of the child at the sampled ECDE centres as per the allocations in the learning time table as it was strictly determined by the time captured in the ECDE syllabus.

Observation schedule was used to check on holistic development of ECDE children in various aspects of development through outdoor play activities. The researcher administered interviews to the ECDE teachers during break time in a silent room to provide their responses on the utilization of outdoor play in an enhanced holistic development of the child in the ECDE centres. Finally the questionnaires were administered to the head teachers to give information on availability of outdoor play facilities, teachers' roles during outdoor play activities, challenges that faced ECDE teachers during outdoor play activities because they were key administrators of ECDE curriculum. The researcher gave respondents a specific time to respond to their respective questionnaire after which they handed in to the researcher. The researcher observed all children as a group as organized by the teacher in charge during their outdoor play activity time for a period of time amounting to thirty five minutes in order to ascertain how holistic development was enhanced through outdoor play activities which contained a list of behaviours that were observed from the children then indicated

on the observation check list if the behaviour had been acquired, attempted or not acquired in their natural environment and was done three times a day in all the 36 sampled schools hence all children were participants as shown in the observation schedule in Appendix III.

The main advantage of this method is that subjective bias was eliminated if observation was done accurately. Secondly, the information obtained under this method related to what was currently happening as the learners undertook outdoor play activities at the ECDE centres as it was not complicated by either the past behaviour or future intentions or attitudes of the learners. Thirdly, this method was independent of respondents' willingness to respond and as such was relatively less demanding of active cooperation on the part of respondents as it happened to be the case in the interview schedule or the questionnaire method administered to the ECDE teachers and the head teachers respectively. This method was particularly suitable in this study since it dealt with respondents who were not capable of giving verbal reports of their own activities during outdoor play.

3.9 Data Analysis Procedures

This is a process of bringing order, structure and meaning to the mass of information collected (Mugenda & Mugenda, 1999). It is a process of inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, suggesting conclusions and supporting decision making. Quantitative data was collected, processed, and analysed by use of descriptive statistics like tables which include the frequencies and percentages. Quantitative data were then entered into the computer for analysis using the Statistical Package for Social Sciences (SPSS) computer software version 12.0 for windows to generate frequencies (f) and

percentages (%), which were then used to discuss the findings whereas qualitative data was analysed by use of thematic analysis procedures.

Thematic analysis was a method of identifying, analysing and reporting themes within a data. It minimally organised and described the data set in rich detail and further interpreted the various aspects of the research topic. It was driven by the researcher's theoretical or analytic interest in the area of study. The quantitative findings were presented by use of frequencies and percentages inform of figures and tables accompanied by explanations, while the qualitative findings were presented in narrative form by use of emerging themes based on the study variables and objectives.

3.10 Ethical Considerations

The study stressed the need for a research that had an understanding of ethical concerns and was more responsive to the local community's self-identified needs. The researcher obtained permission from the graduate school, Moi University, sought permit from the relevant authority, NACOSTI which was served to the other authorities in the County and Sub-County where the research was undertaken. Finally, the researcher sought permission from the head teacher before collecting data from the sampled ECDE centres. The researcher pre-visited the 36 sampled ECDE Centres mainly to seek permission from the head teachers and create rapport teachers and children.

During the pre-visit, participants agreed with the researcher on the best time and date for data collection. The researcher explained critically the intended purpose of the study which was purely for academic purpose. The researcher ensured the principle of voluntary participation where by the participants were not coerced into participating in research. The researcher ensured respect for anonymity by allowing respondents to have pre-eminence over time and extent to which they would share the information.

Research participants also were assured that privacy would prevailed in the study whereby their identities, their responses and the names of their schools would not be mentioned and all the respondents would be treated with respect and equality. Informed consent was upheld during the study in that all prospective research participants would be fully informed about the procedures and the purpose of the study, the demands and risks of the study for this would influence their willingness to participate in providing relevant information. Researcher did not put participants in a situation where they would risk harm either physical or psychological as a result of their participation. The researcher guaranteed the participants confidentiality.

3.11 Chapter Summary

This chapter has presented a discussion on the Methodology that guided the preparation of instruments, data collection and data analysis. As mentioned earlier, the appropriate research design used in this study was Descriptive Survey. Several subtopics have been presented that included the description of the research design, study area, target population, sample size, sampling procedures and techniques , research instruments, pilot study, validity and reliability of research instruments, ethical considerations, data collection procedures and data analysis procedures that were highlighted and discussed.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter highlighted presentation of findings, analysis, interpretation and discussion whereby an introduction to the chapter, demographic information of the respondents, the findings based on the study objectives, discussion of findings integrated with the literature review in chapter two for each objective and chapter summary. The study targeted the Head teacher and one ECDE teacher from the sampled schools. The first ECDE center visited was numbered 1 and the last ECDE center visited was numbered 36 and the respondents were coded and for the interview were represented by T, and ECDE center represented by S hence the purpose of this study was to investigate the utilization of outdoor play in enhancing holistic development of the child in ECDE centres and was organized based on the study objectives which have been stated below.

i. Establish different types of outdoor play facilities available in enhancing holistic development of ECDE children.
ii. Assess the appropriateness of outdoor play facilities in enhancing holistic development of ECDE children
iii. Evaluate the roles of the teacher in organizing outdoor play activities utilised for the enhancement of holistic development of ECDE children
iv. Examine the outdoor play activities that ECDE children participate in for the enhancement of holistic development
v. Identify the challenges ECDE teachers face during outdoor play activities utilised for holistic development of ECDE children

4.2 Questionnaire and Interview Return Rate

This study targeted both Head teachers and ECDE teachers. A total of 32 Head teachers were administered with questionnaires and 32 ECDE teachers were interviewed. Out of 72 respondents in total who were sampled, 4 Head teachers were not administered with questionnaires and 4 ECDE teachers were not interviewed due to the Covid 19 pandemic which rendered some ECDE centres un available hence a return rate of 88.9% was made.

Their general and demographic information were collected and analyzed as follows. The respondents were coded and the first respondent was assigned number 1 and the last respondent assigned number 32. They were to give their responses using a YES or NO and support their responses by giving more explanations.

The researcher worked out the Questionnaire and interview response rate and the results were as shown in Table 4.1

Table 4.1 Questionnaire and Interview response rate

Respondents	Target population	Returns	Response rate
Head teachers	36	32	88.8%
ECDE teachers	36	32	88.8%
TOTAL	72	64	88.8%

Based on Figure 4.1, the data represented showed the total number of sampled ECDE centres whereby, the public ECDE centres who participated in the study were 21 (58.3%) and private ECDE centres who participated in this study were 11 (30.5%) while those who did not participate in the study were 4 (11.1%) hence this data implies that there were more public ECDE centres in Bomet East Sub County than the private ECDE centres.

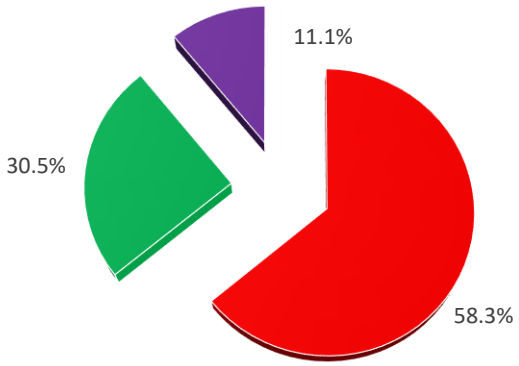

Figure 4.1: Type of ECDE Centre

ECDE teachers were also asked to state their teaching experience and it is shown in Figure 4.2 which indicated that majority of ECDE teachers from the sampled ECDE centres had teaching experience between 6-10 years at 11(34.3%) followed by ECDE teachers with 0-5 years at 8(25%). About 6(18.8%) had an experience of 11-15 years and those with 16-20 years of working experience were about 4(12.5%) while those with 21-25 years of working experience were 2(6.2%) while 26-30 years of working experience were none and with 31-35 years was 1(3.1%). Through these findings, it was revealed that a larger population of ECDE teachers in Bomet East Sub County had a working experience of 6-10 years. Additionally ECDE teachers were also asked to state their professional qualification and findings were presented in Figure 4.3.

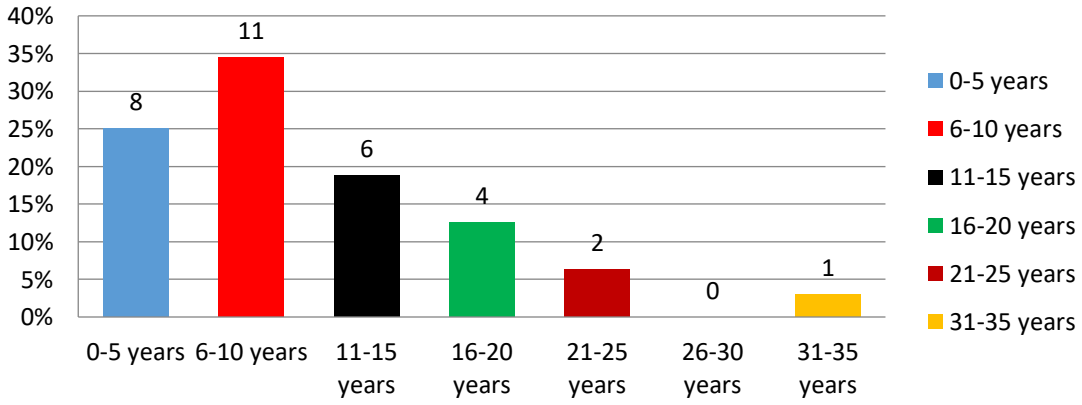

Figure 4.2. ECDE Teachers Working Experience

As shown in Figure 4.3, the study findings revealed that the largest number of sampled ECDE teachers 20(62.5%) had Kenya Certificate of Early Childhood Development and Education, followed by 12(37.5%) with Diploma in Early Childhood Development and Education and none of the sampled ECDE teachers had Bachelor Degree in Early childhood Development Education. This can therefore be concluded that all ECDE teachers in the sampled ECDE centres were trained and more than half of the sampled ECDE teachers were trained for certificate while others were trained under Diploma level hence they are all qualified to handle ECDE children and therefore they must be having some know how on the outdoor play activities and enhancement of holistic development of the ECDE children.

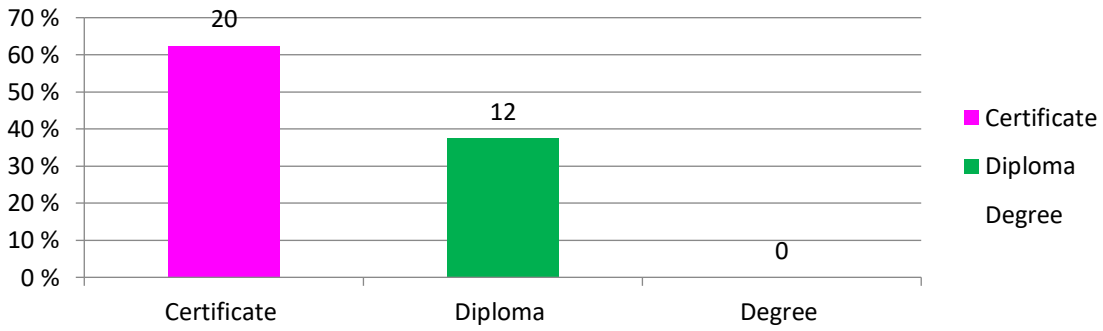

Figure 4.3: ECDE teacher's professional qualifications

4.3 Availability of Outdoor Play Facilities

The researcher tried to determine holistic development of the child through ascertaining the facilities and materials available that ECDE children could engage in as it was one of the key variable in this study. The researcher observed the outdoor play facilities and materials available and indicate their availability and state of these outdoor play facilities and materials. Observation and interview data collection tools were utilized and ECDE teachers were the interview respondents and they were asked to describe the availability of equipment which include the (ladders, swings, climbing frames,

stairways, see-saw, tunnels, slides) space and materials which include (balls, tyres, rings, hoops, ropes, logs, bean bags, sags, landing mats) and any other relevant materials compared to the number of children in their respective ECDE centres to outdoor play by indicating a YES (available and adequate), NO (available and inadequate**)** response and the findings were shown in Figure 4.4.

Figure 4.4 revealed that, a higher number of ECDE teachers 31(96.8%) indicated that the available equipment were not adequate compared to the number of ECDE children in their centres while 1(3.1%) indicate that the equipment were available and adequate compared to the number of children in their ECDE centres. 29 (90.6%) of the sampled ECDE centres revealed that the space was available and adequate for play while 3(9.3%) revealed that the space was available but inadequate for outdoor play activities whereas 3 (9.3%) revealed that the materials in their ECDE centres were available and not adequate for play while about 29(90.6%) stated that the materials in their ECDE centres were available and adequate for outdoor play activities.

The researcher observed that most of the sampled ECDE centres lack outdoor play equipment in that only 3(9.3%) had swings where 2(6.3%) had permanent swings though they need to be repaired while 1(3.1%) had an improvised swing all were public ECDE centres. Availability of space and materials was considered adequate in most of the sampled ECDE centres only that in 3(9.3%) have limited space and materials and they were majorly private ECDE centres.

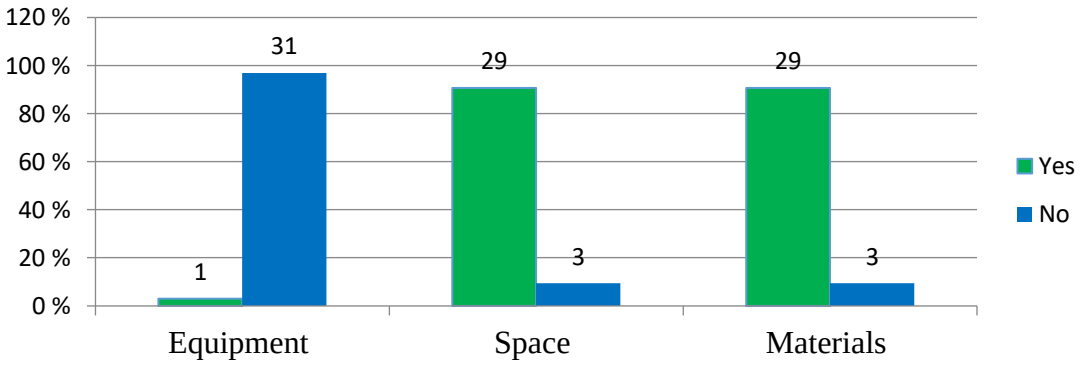

Figure 4.4: Availability of Equipment, Space and Materials

4.4 Roles of the Teacher during Outdoor Play Activities

The researcher observed ECDE teachers during children's outdoor play activities in order to determine their roles and ECDE teachers were also interviewed on their specific roles during children's outdoor play activities and they gave their responses and first were to indicate whether they plan for outdoor play activities or not and their responses were indicated by a YES to represent that they plan and a NO to indicate that they do not plan for and it was revealed that 31 (96.9%) of the ECDE teachers reported that their role was to plan for their outdoor play activities according to the activity of the day and 1(3.1%), do not plan for their outdoor activities and considered it as a free choice activity. This means that the respondents followed the Curriculum for the ECDE whereby they understand that outdoor play activities are important for the development of the child hence planning for the outdoor play enhanced development of the child.

The observations results indicated that 1(3.1%) left children to play on their own while the rest of the sampled ECDE teachers who plan and accompany their children for outdoor play activities enhanced various roles in order to enhance holistic development of the child. The respondents were further asked to state whoever responsible for supervising ECDE children during outdoor play activities in their respective ECDE

centres and the response was that all the respondents making a total of 32 (100%) are responsible for supervising ECDE children during their outdoor play activities. This implies that all ECDE teachers from sampled centres were in charge of their children during outdoor play as they understand more about their children since they are trained and qualified to handle these ECDE children.

ECDE teachers were interviewed and asked to indicate their different specific roles during outdoor play activities and majority of them have more than one role to play and Table 4.2 showed the response rate. Based on the findings in Table 4.2, the respondents 31(96.9%) organize outdoor play activities. Most of the respondents 27 (84.4%) indicated that they supervise their children during outdoor play activities and those who do not supervise were 5(15.6%) whereas 24(75%) indicated that they ensure safety among children and enhance demonstration and those who do not ensure safety and demonstrate were half of the respondents and indicated that they guide learners during outdoor play activities. There was an observation made by the researcher that some ECDE teachers are not knowledgeable in terms of their roles since majority of them indicated their roles which are below the average percent and they are stated categorically as other roles.

Other roles were represented by a small representative which include 13(40.6%) who ensure full participation among children, 9(28.1%) control the class, 8(25%) role play during outdoor play activities, 7(21.9%) assesse and evaluate learners, 6(18.8%) give instructions, 5(15.6%) ensure turn taking and sharing of materials, 4(12.5%) motivate learners, 2(6.3%) provide materials and 1(3.1%) identify special need children and enhance communication among learners. It was also observed that majority of the ECDE teachers have varied roles. Researcher observed that the main roles among all

the ECDE teachers during children's outdoor play activities include organizing outdoor play facilities and materials, supervising and ensuring full participation among children through grouping, turn taking and sharing available outdoor facilities and materials.

Table 4.2 Specific roles during outdoor play activities

Roles of Teachers	Frequency	%
Ensure full participation	13	40.6
Supervise	27	84.4
Control class	9	28.1
Role play during outdoor activities	8	25
Motivate learners	4	12.5
Identify special children	1	3.1
Enhance communication among learners	1	3.1
Assess and evaluate learners	7	21.9
Ensure safety	24	75
Demonstrate	24	75
Give instructions	6	18.8
Guide learners	16	50
Provide materials	2	6.3
Organize outdoor play activities	31	96.9
Ensure turn taking and sharing of materials	5	15.6

4.5 Appropriateness of Outdoor Play Facilities

The respondents were asked to rate the appropriateness of outdoor play materials in their ECDE centres with respect to the age of the learners and to rate them on how these ECDE children conduct themselves with those materials whether they handle them with ease and play with them safely and freely without any harm as the materials were relevant to the age of the learners by indicating a YES if they were relevant and indicating a NO if they were not relevant and give reasons for their responses and a response from the ECDE teacher's interview was a 100% indicating a YES meaning all the respondents revealed that facilities and materials that were available in their ECDE centres were appropriate to the age of their learners as learners were able to play with

them easily for example the available tyres were of the size of the learners, the ropes, balls and logs were of children's age researcher's observation concur with the interview responses.

Also respondents were asked to state and explained whether children utilized outdoor play equipment and materials with ease or they scrambled for the few that were available and indicate their responses with YES/NO accompanied with the explanations and majority of the respondents 28(87.5%) explained that children utilized the available materials with ease through grouping, turn taking, sharing, teacher controlling the class and introducing a new game while a 4(12.5%) explained that children scrambled for the few that were available due to poor class control, large class size and inadequacy of materials in the centre. All children from the sampled ECDE centres were able to swing, jump over the rope, kick the ball, race with tyres easily because these facilities and materials were of children's age and were locally made from the available resource materials hence the size of these materials were considered as relevant to the age of the learners.

4.6 Children's Participation during Outdoor Play Activities

Outdoor play time was an important part of preschool curriculum. According to Deaver and Wright (2018), children have authentic opportunities to interact with other children during outdoor play; these experiences enhanced children's social skills and increased problem-solving skills. Additionally, Dennis et al (2019) stressed how outdoor play increases children's abilities to solve problems and to experience hands-on learning in science, technology, engineering and math. Moreover, during self-selected outdoor play, children enhanced their physical and mental well-being (Dennis et al., 2019). Children could use and build large muscles by climbing, running, throwing, jumping,

and kicking. They could use and develop small muscles by manipulating small toys, rocks, sticks, and pinecones.

According to Cordiano et al. (2019), nature-based programs which included outdoor play activities provide children with opportunities to engage with unstructured materials, including rocks, dirt, leaves and sticks. Children do not have to be told what to do with these unstructured materials. Through imaginative play, children can transform these unstructured materials into whatever new objects they can think of. This approach enhances creativity and problem-solving skills as children learn to be imaginatively flexible in thinking of new things to do with these materials. For example, stick shelters might be transformed into a grocery store one day and into a rocket ship the next (Cordiano et al., 2019). This demonstrates the expansive use of unstructured materials to generate ideas that are beneficial to childhood growth and development as children transition from the home to the school environment.

Observation was made by the researcher and found out that majority of the ECDE teachers engaged their children for 30-40 minutes and the interview responses were indicated in Figure 4.5 which revealed their responses and most ECDE centres had set aside forty minutes and thirty minutes for outdoor activities at about 9(28.1%) each. This was in accordance with ECDE curriculum in Kenya which advocate for 30 minutes for outdoor play activities on daily basis, 5(15.6%) of the interview respondents said that they set aside 35 minutes for outdoor play activities and 3(9.3%) set aside 1hour and the rest 6 respondents each 2(6.3%) set aside 50 minutes, 45 minutes and 20 minutes. Also, it was observed that at the end of the outdoor play time that each center has set aside, children yearn for more play and majority of the ECDE teachers engaged their children in various outdoor play activities by ensuring turn taking among children,

grouping according to gender, sharing the available equipment and materials and enhance competition among learners in order to enhance full participation during outdoor activities where each and every child participate.

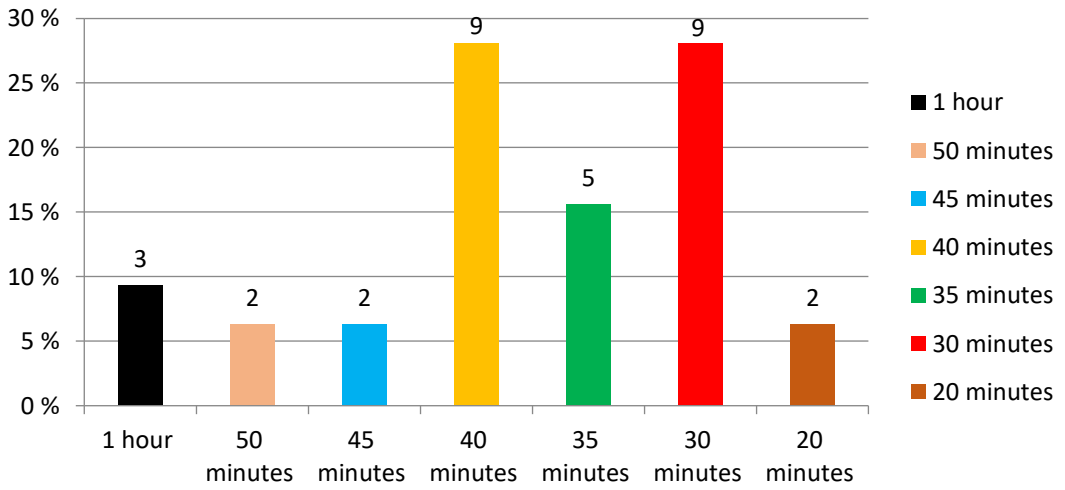

Figure 4.5 Time allocated for outdoor play activities

Respondents were further asked to state their opinion on how much outdoor play time they believed ECDE learners should experience while at school and majority 30(93.6%) represented by YES believed that 30 minutes to one hour was recommendable citing that children like playing and development of the child is enhanced. Also children experiencing various materials requires enough time in order to play with all the materials that are available in their outdoor play space while the rest 2 (6.3%) represented by NO believed that less than 30 minutes is adequate for children citing that a lot of class work has to be done hence do not believe in outdoor play in enhancing development of the child and Figure 4.6 showed their response however, ECDE teachers should engage their children in a playground comprising of varied outdoor play facilities and materials for children to participate fully and enhance their holistic development and be available in order to guide, control, supervise, ensure safety among children during their plays.

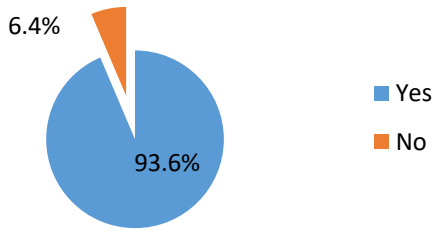

Figure 4.6: Duration of time ECDE children should take during outdoor play activities

Respondents were further asked to state whether they believed outdoor play was a distraction or beneficial to their learners and all the respondents agreed that outdoor play was beneficial to ECDE learners giving a total of 32(100%). Regarding what facilities and materials children like playing with during outdoor play time the responses indicated according to children's preferences represented by a YES in that, balls 26 (81.5%), ropes 20 (62.5%), tyres 14 (43.8%) clay and soil 5(15.6%) each and sticks and swings 3(9.4%) each, while those who did not like the material were represented by a NO. Figure 4.7 showed their responses. It was an indication that during outdoor play activities children from more than half of the sampled ECDE centres like playing with Ropes and Balls because they are easy to handle and access.

This results concurs with the observation from the researcher whereby children who participated with balls also participated with the ropes as the two materials were available in most of the sampled centres. This means that balls and ropes are readily available, they can be bought as they are cheap or can be improvised also and can be used for various purposes. Clay was seasonal and was in specific centres where they have clay soil and children like modelling various objects with it during outdoor play times. Tyres also were preferred by a good number of ECDE centres as it enhance children's fun and communication during competition.

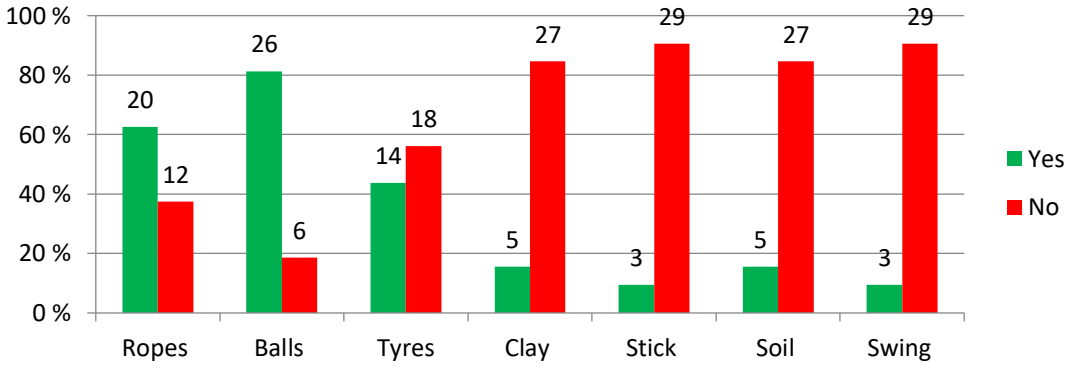

Figure 4.7 Outdoor Play Facilities and Materials Children like Playing with

The respondents were further asked to state any other outdoor activities that do not require the use of outdoor play facility and materials especially when there was inadequacy of facilities and materials and the responses were indicated in Figure 4.8, represented by YES and it was revealed that most children 27(84.4%) like running round the field since the field was adequate and spacious in most ECDE centres where jumping as they count, making a circle and joking around after running was observed and they were 22(68.8%) each as it was preferred by majority of the ECDE centres. Other activities with more than a half of the percentages were skipping 17(53.1%) and Making a circle 16(50%). This implies that children utilized the playground well hence ECDE children can develop all aspects of development without necessarily depending on the availability of outdoor play facilities and materials.

Other activities with less than half the percentage and represented by YES were hide and seek Game 13 (40.6%), Frog jumping 10 (31.2%) and Clapping of hands 3 (9.4%). This means that nearly all the sampled ECDE centres do not like these games citing that no fun or enjoyment was experienced by the children as they were more of individual play. These results contradicted with the findings from the observation schedule where the researcher observed that children like running in all the sampled ECDE centres even with centres with limited space. Jogging was done in all the

sampled ECDE centres by children after running round the field, they jog around and later on frog jump to a given direction of the field. The findings agreed with researcher's observation whereby more than half of the sampled ECDE centres engaged in skipping and making a circle. An indication by observation schedule was that there was a small percentage on hide and seek game in that most of the fields were clear and nowhere to hide for the play to be enhanced.

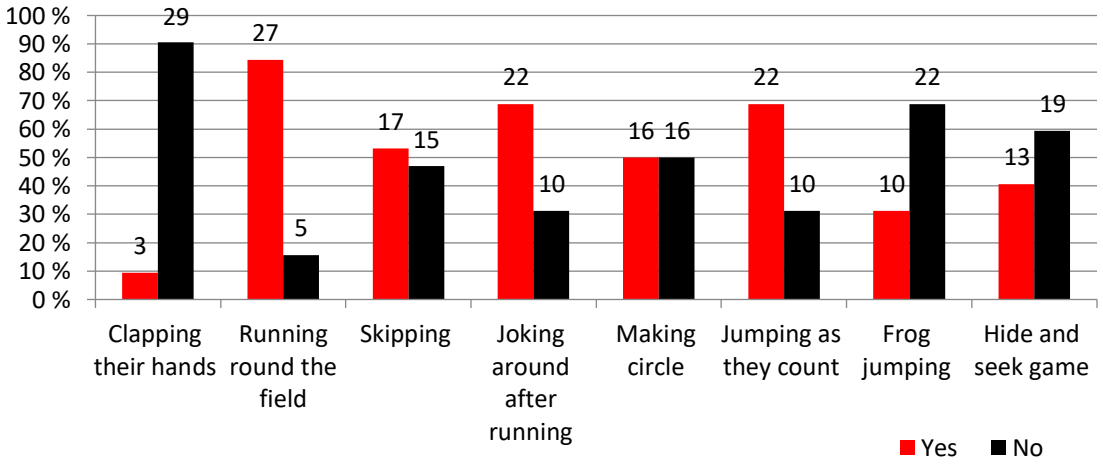

Figure 4.8: Activities that do not require the use of outdoor play facilities and materials

The respondents were also asked to indicate the frequency of children participation during outdoor play and Figure 4.9 showed their responses. It revealed that most of the ECDE teachers engaged their children on a daily basis in outdoor play activities giving 28(87.5%) citing that outdoor play activities were important for the development of ECDE children and more so as stipulated in the ECDE curriculum. ECDE teachers believed that when children are engaged daily in outdoor play activities, various aspects of development are enhanced and children are not necessarily expected to be assessed during class work only.

However there were few ECDE teachers 2(6.3%) who believed that outdoor activities could not take place daily but four times a week indicating that one day was meant for hygiene routine and they believed that children were able to develop despite one day where children were not involved in outdoor play activities. 1(3.1%) believed that three times a week was recommendable for children and 1(3.1%) believed that two times per week was enough for ECDE children and both the two teachers believed that other days were meant for academic purposes in order to improve their academic performances.

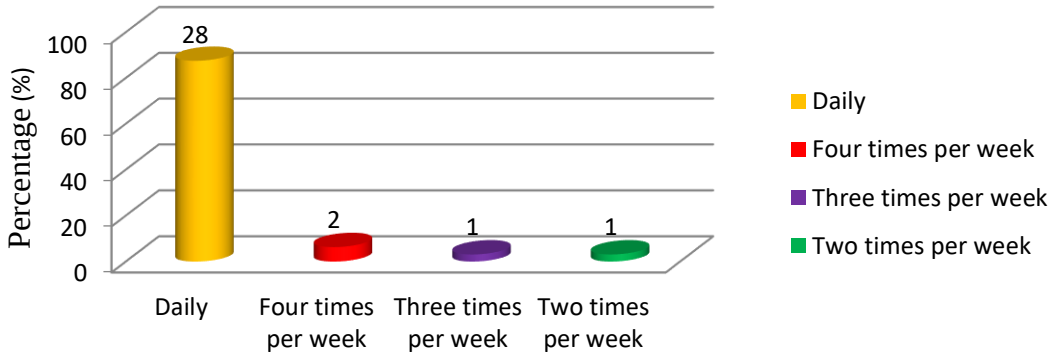

Figure 4.9: Frequency of children's participation per week in outdoor play activities

The respondents were asked to state the time they took their children out for outdoor play activities and explained their responses and Figure 4.10 represented their responses. The respondents who took their children for outdoor play activities during morning hours believed that children are still active and they were 5 (15.6%) citing that children should be engaged in outdoor play activities when they are still active and full of energy and relax later during the day when they are exhausted with class work and other respondents who took their children out for outdoor play activities during mid-morning believed that children extended their class activities to outdoor play giving a 25(78.1%) and also break the class monotony.

They also indicated that during midmorning, children are almost getting exhausted hence taking them for outdoor play activities would regain their energy and become active during class time again while respondents who took their children out for outdoor play activities during noon time believed that it was for relaxation purposes as children are exhausted during noon hours giving a 2(6.2%) hence based on the above analysis, most ECDE teachers took their children out for outdoor play activities during mid-morning. Similar observation was made whereby in most of the centres, children were taken for outdoor play during mid-morning hours and few took their children for outdoor activities during morning time while the rest took their children during noon as represented in Figure 4.10 citing their personal reasons on the time they took their children out.

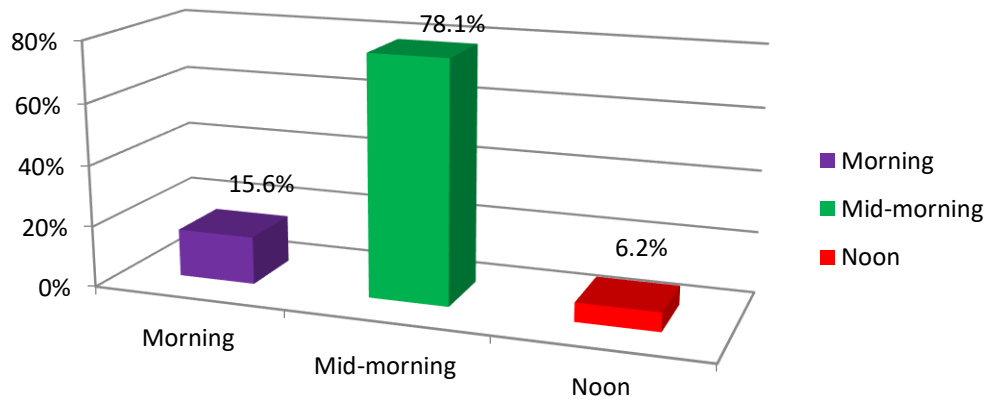

Figure 4.10: Time of the day when children are taken out for outdoor play activities

The respondents were asked to state and explain where they took their children for outdoor play activities and 32(100%) response rate was obtained revealing that children are taken to the field/playground for maximum participation because it was spacious and it can accommodate the number of ECDE children in each center whereby grouping

of learners for competition was enhanced, turn taking and sharing inadequate outdoor play facilities and materials. ECDE teacher can ascertain various aspects of development among children as there was enough space for ECDE children to work on and findings from observation concurs with that of interview as children were taken to the field for outdoor play activities because it was spacious in most of the ECDE centres and can enhance various developments.

The respondents were asked if the space for outdoor play activities was adequate and their responses revealed in Figure 4.11 that most 30 (93.8%) represented by YES perceived the available space adequate while 2(6.2%)) represented by NO perceived that the available space was inadequate for outdoor play activities and they were from the private ECDE centres. Similarly, these results concurred with the observation made by the researcher where she observed that most of the public ECDE centres had adequate space compared to the private ECDE centres where majority of the private ECDE centres had limited space but adequate for the number of children in their centres. The researcher noted that if the population of children continued to grow, it should also accommodate all of them.

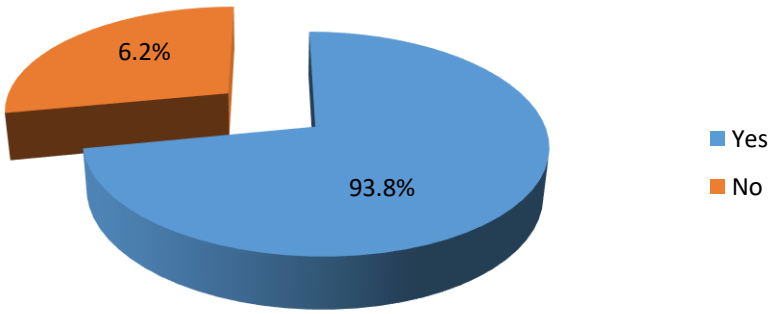

Figure 4.11 Adequacy of space for outdoor play activities

The respondents were asked to state and explain activities that children participate in while in the playground, whether planned, unplanned, guided and free choice activities and Figure 4.12 shows the findings and respondents of 13 (40.6%) revealed that activities were planned according to the activity of the day while respondents of 2 (6.3%) revealed that children engaged in activities that were unplanned according to the availability of outdoor play facilities and materials and the other respondents of 17 (53.1%) revealed that children engaged in both guided and free choice activities as the teacher planned for some activities and later on children engaged in free choice activities. These findings concurred with the observation made by the researcher where by majority of the children in the sampled ECDE centres participated in the outdoor activities planned and unplanned based on the theme or activity of the day.

This means that the observations in the 17(53.1%) of ECDE centres, indicated that teachers accompanied their children to the field and supervised them in order to undertake the guided play and later on leave children to engage in other activities of their preferences which were not guided. The 13(40.6%) planned for the activity of the day based on the theme of that day. In this case, ECDE teachers were compelled to avail relevant materials for that day and the respondents of 2 (6.3%) cited that availability of materials determines the activity of the day hence if materials were not available then no activity is enhanced but free choice activities only where children can engaged in any game they felt like participating in.

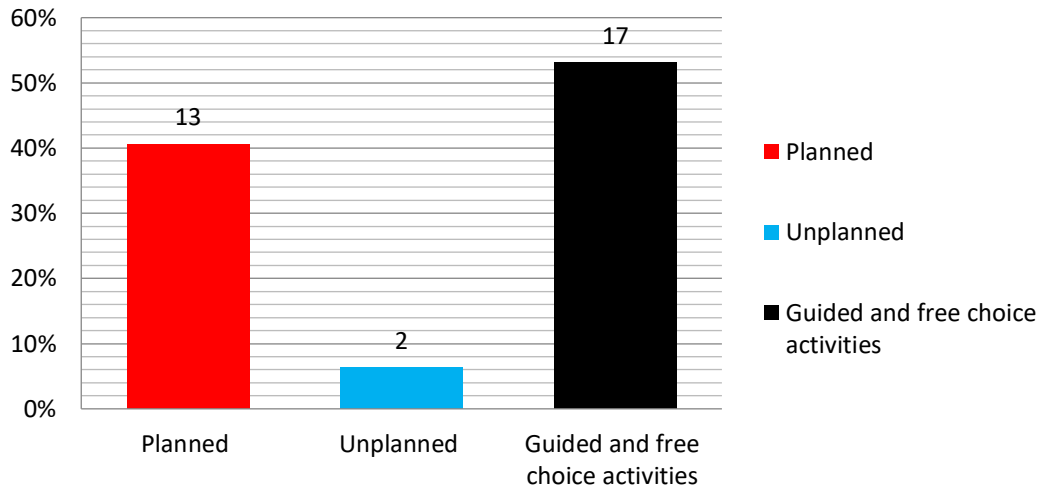

Figure 4.12 Activities children engaged in, planned, unplanned, guided and free choice.

4.7 Challenges faced by ECDE Teachers during Outdoor Play Activities

Educators may face challenges when engaging preschool children in activities that promote learning development and creativity. In multicultural environments, for example, teachers might find the creation of social interactions between the children difficult (Csánya, 2018), meaning that creative and learning development activities that required cooperation and social interaction cannot be enacted as planned. Some limitations in the use of outdoor activities in preschool education have been identified. Hunter et al. (2020) argued that educators do not have sufficient time and adequate conversations regarding the preparation and planning of outdoor learning.

Many educators believed that more time is required to prepare for indoor activities compared to outdoor play. This was related to the notion that during adventure activities, teachers had the opportunity to take a break while the children in their care play on their own (Hunter et al, 2020). The lack of coordination and discussion concerning adventure learning demonstrate a lack of connection between the major stakeholders responsible for steering and supporting outside play. Therefore, common

understanding is required among educators of the role applied of outdoor teaching methods in the development of creativity and learning among preschool children.

With relevance to this study, the respondents were asked to state if their ECDE centres had the safety and regulation guide and the analysis was shown in Figure 4.13 and how it influenced children's participation during outdoor play activities, where 1 (3.1%) represented by YES responded that it enhanced full participation as children were guided well while those who did not have were represented by 31 (96.9%) represented by NO and responded that they use their experiences and knowledge gained during training and was shown in Figure 4.13.

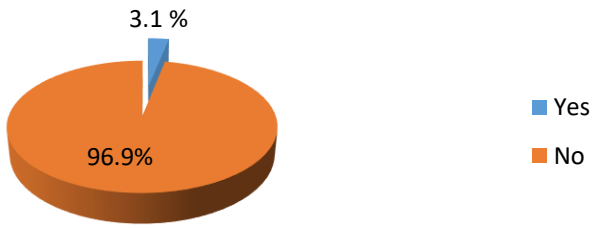

Figure 4.13 Availability of Safety and Regulation Guide

The respondents represented by NO were asked on how their children were guided to participate during outdoor play activities and their response were presented in Figure 4.14, majority of the respondents had various guidelines during outdoor play and a larger percentage 26 (81.3%) indicated that they guide their children during outdoor play activities using the work experience they had gained as majority of them had a working experience of 6-10 years. Respondents of 12 (37.5%) were those using knowledge gained during training and use of syllabus. This was supported by their professional qualification where all the ECDE teachers from the sampled centres were qualified as they have trained in certificate and Diploma. Syllabus was available in all the ECDE centres and it was a guide to ECDE teachers.

The respondents of 9 (28.1%) used scheme of work citing that they introduced the activity, presented, developed and concluded it. The smaller percentage of 3 (9.4%) indicated that they use assessment book to guide children during outdoor play activities. Similarly researcher observed that majority of the ECDE teachers performed their various roles in their ECDE centres to ensure that outdoor play facilities enhanced holistic development of the child. Observation made in one ECDE center, indicated that the teacher had no role as children engage in free choice activities and played with the equipment and material they like on their own and when outdoor play equipment and materials were not available, they could enjoy other activities that do not require these equipment and materials which include running around the field and to a given direction for competition, jogging also.

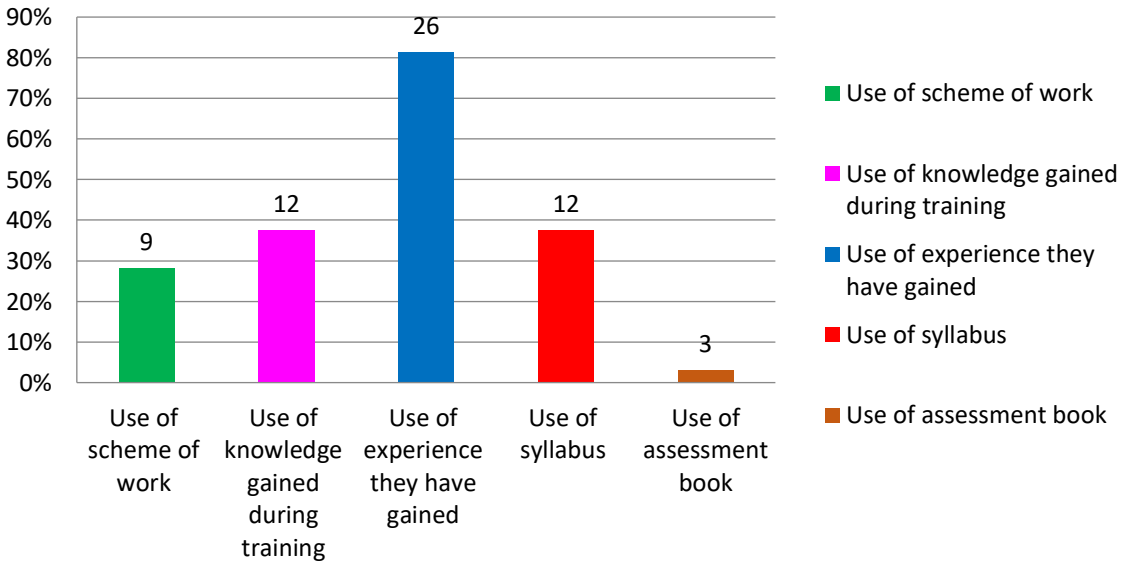

Figure 4.14: How children were guided during outdoor play activities

The respondents were asked what they normally do in case there were shortages of outdoor play facilities and materials during outdoor play and their responses were analyzed as in Figure 4.15. The results from the observation schedule contradicts with some findings in Figure 4.15 whereby all the schools improvised the outdoor play

materials for example, ball and ropes were the most improvised in all the sampled ECDE centres. Despite the shortages of outdoor play materials, the researcher did not observed any ECDE teacher introducing another play due to inadequacy of outdoor play materials and 2 ECDE teachers were seen grouping learners and not the 22 as indicated in the findings. The findings in Figure 4.15 concurred with the researcher's observation on ensuring turn taking and sharing the available materials whereby the same number of ECDE centres tallied with the results from the interview.

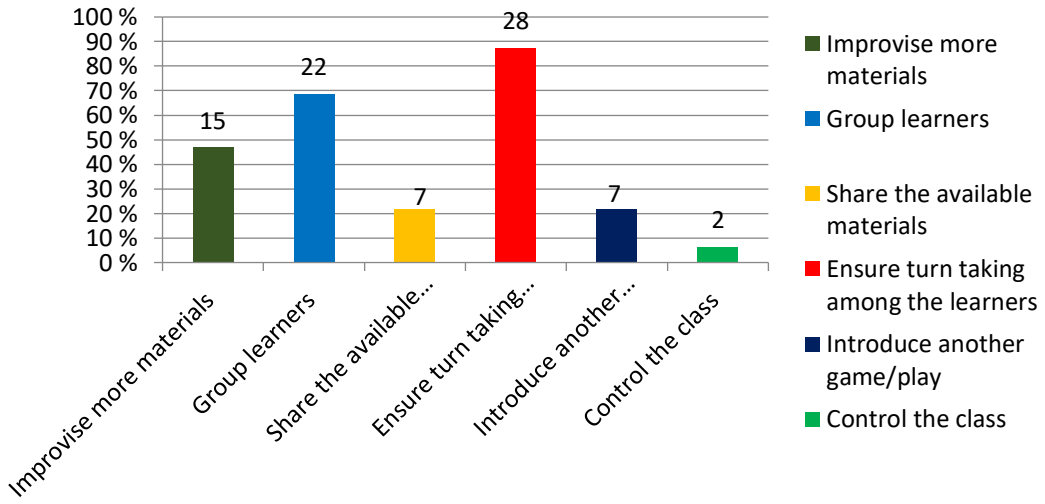

Figure 4.15 How to overcome inadequacy of outdoor play facilities and materials

The respondents were also asked to state how they ensured safety of the play area and play materials/equipment and their responses were analyzed as shown in Table 4.3. It was revealed that majority of the ECDE teachers have various ways in ensuring safety of the play area and materials whereby storing the materials safely after use had a higher percentage 28 (87.5%). Respondents of 21 (65.6%) removed unwanted materials from the field. This was because the playground was used by the entire school hence they might have left unwanted materials after use and 16(50%) of the respondents inspect the field first before engaging children with outdoor play activities. The respondents of 15(46.9%) fill existing holes citing that some of the plays which boys engaged in during

free choice activities included drilling of holes and leaving them without filling them hence the ECDE teacher should consider filling them before the actual outdoor play activities. The respondents of 4 (12.5%) collected the materials after use and store them safely.

This implied that collection of the materials after use was not considered a major way of ensuring safety of the play as indicated by the percentage. The respondents of 3(9.4%) indicated that they controlled the class and fenced the field. This implied that by controlling the class, teachers ensured that children did not tampered with the materials before or after use and fencing the field was to ensure that children understand the boundary of the field and not to extend their plays outside the field which include roads as it posed danger to their lives.

These findings concurred with the findings from observation where the researcher observed that no teacher inspected the field first before play and filling existing holes as indicated in the findings from some respondents. Observation also was made whereby only 4(12.5%) ECDE centres collected their materials after use and store them safely in their lockable cupboard unlike the results from interview where 28 respondents indicated that they stored them safe after use and only 3 (9.4%) ECDE centres control the class as it was manageable.

Table 4.3 How to ensure safety of the play area

Safety of the play area and materials	Frequency	%
Inspect the field first	16	50
Remove unwanted materials from the field	21	65.6
Fill existing holes in the field	15	46.9
Fence the field	3	9.4
Collect the materials after play/use	4	12.5
Store the materials safely after use	28	87.5
Control the class	3	9.4

The respondents were asked to state challenges they faced during outdoor play activities and the analysis of their responses are shown in Figure 4.16. It was evident that most of the ECDE centres lack enough facilities and materials with a frequency of 30 (93.8%) and some respondents indicated that materials were adequate in their ECDE centres. These results contradicted with the observation where by the researcher observed that none of the sampled ECDE centres had adequate materials hence sharing, taking turns and grouping were enhanced for each and every child to participate. This implied that even though outdoor play materials were available, they were inadequate compared to the number of children for example one ball, one rope and a tyre was observed by the researcher in most of the ECDE centres hence inadequate for the entire ECDE class where children's population was almost fifty in all the public centres and around thirty in private centres.

Lack of outdoor play facilities was a major challenge in most sampled ECDE centres giving 25(78.1%). This was observed by the researcher whereby facilities were not available in all the sampled ECDE centres include Climbing ladders, Climbing Frames, Tunnels, See saw and Beam balance indicating that they are expensive to buy and not safe to improvise, however only two ECDE centres had permanent swing and 1 ECDE centre had an improvised swing. Interference by other learners was another challenge experienced by a number of ECDE teachers. This was because despite the field being spacious, children love plays and they were interfered with other children without their awareness as their outdoor play materials might strayed beyond their marked fields. This contradict with the findings from observation whereby all the ECDE children were interfered by older children since they do not have their own playground. The respondents of 3(9.4%) each indicated difference in abilities and ages.

This implies that despite ECDE children seemed to be of the same age, they tend to vary in abilities hence posing a challenge during outdoor play activities where some children mature faster than others and 3 (9.4%) indicated that there was dominance among other children whereby when one got a materials, he/she wanted to play with it till the end of the play time without giving others a chance to play with. Large size of class and respondents 2 (6.3%) indicated that there was a high population in their centres and the few materials available was not proportional to the number. The smallest percentage of 1 (9.45%) indicated that there was lack of cooperation among learners and this implied that each child had his or her own interest during outdoor play activities more so when playing with the swings.

These findings concurred with most of the observations made by the researcher where there was dominance over an equipment in 4 (12.5%). Also there was high population recorded in 2 (6.3%) hence controlling the class was a challenge. Additionally, 3 (9.4%) were observed and findings concurred with the interview results which indicated that there was difference in abilities where by some children handle the materials with ease while other handle with difficulties.

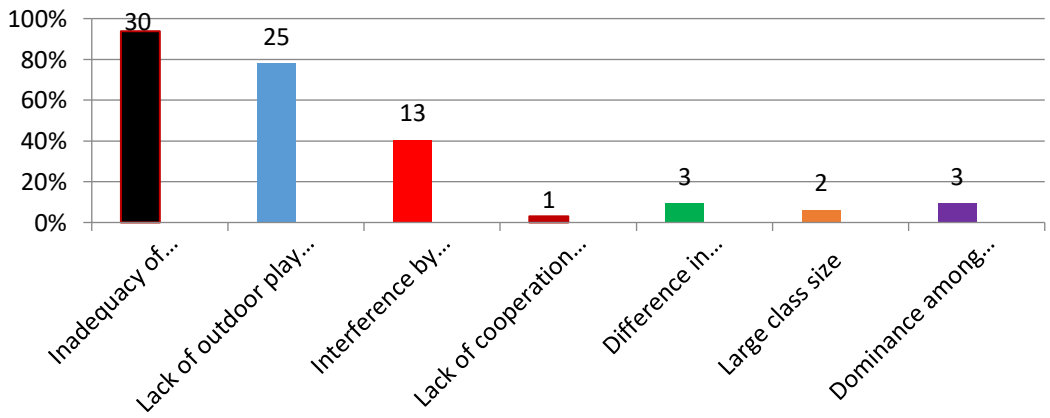

Figure 4.16: Challenges faced by ECDE Teachers during outdoor play activities

The respondents were also asked to state how they overcome these challenges as stated above and their responses are analyzed in Figure 4:17. Based on the responses in Figure 4.17, ECDE teachers which were half of the respondents' group learners 16 (50%) which was the major activity. This implied that grouping of learners was due to inadequacy of outdoor play equipment and materials and through grouping each child will get an equal chance to participate during outdoor play activities. Controlling the class, 15 (46.9%) was another major way of overcoming the challenge. This indicated that if the teacher took control of the class, then there was no scrambling of the few available equipment and materials. Turn taking also had a larger percentage 13 (40.6%) whereby ECDE teachers indicated that they overcome the inadequacy of outdoor play equipment and materials by ensuring that turns were taken among ECDE children so that each child participated in outdoor play activities.

The respondents of 5 (15.75%) indicated that they shared the available materials. This implied that despite the availability of few equipment and materials, sharing them among learners enhanced full participation during outdoor play activities. Storing the materials safely after use as indicated by respondents of 3 (9.4%) helps in overcoming the challenge of inadequacy of materials during the next outdoor activity time as it enabled safety and availability. Also, 1 (3.1%) each indicates that they ensure one game per day and instructed the learners hence it implied that children are instructed to wait for his or her turn in order to play with the equipment or materials and introducing one game per day means that the ECDE teacher only focuses on one event and all learners were to play one game only.

The findings concurs with observations made where by the researcher observed that half of the ECDE teachers group their learners since availability of materials were

inadequate and turn taking was enhanced. Sharing the available materials was observed in most of the centres and the findings from interview contradict in that only 5 (15.75%) respondents indicated that they shared the materials. The findings from the observation contradict with the interview findings where by the researcher made no observation in any ECDE centre where instruction was enhanced and ensuring one activity per day. Children were observed performing various activities based on the availability of outdoor play facilities and materials. The findings from the observations concurred with the findings from the interview whereby storing of the materials safely after used was reported in the same ECDE centres though a small variation was made on the observation where 4 (12.5%) schools were reported to store them safely while the interview findings reported that 3 (9.4%) ECDE centres stored these facilities and materials safely.

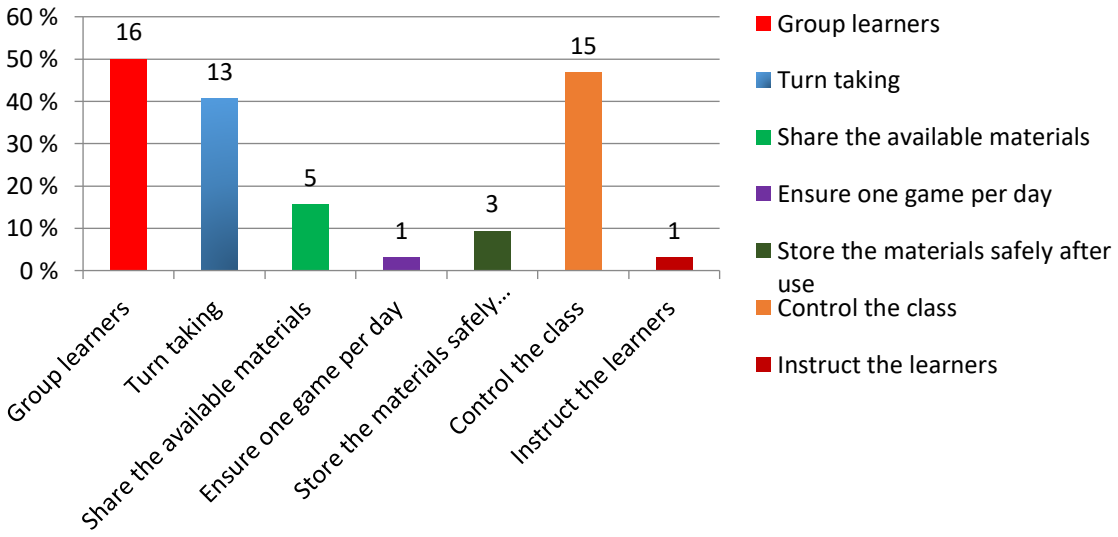

Figure 4.17 How to overcome challenges during outdoor play activities

The respondents were asked to give their own opinions on outdoor play activities and holistic development and their responses were analyzed as shown in Table 4.4. Based on the analysis made, a higher percentage 27 (84.4%) said that school management should purchase outdoor play facilities using the community development fund which

include the slides, beam balance, tunnels, see saw, climbing ladders and frames citing that they are expensive for parents to buy and availability of these materials helped children in developing various aspects of development. The respondents of 19 (59.4%) indicated that parents should donate more materials for outdoor play activities citing that there was availability of these materials in their homes hence donation was encouraged. Old tyres, improvised ropes and balls should be donated to ECDE centres for outdoor play activities. The respondents of 11 (34.4%) indicated that ECDE teachers to improvise more materials on their own citing that they have relevant knowledge and what it takes during improvisation of these outdoor play materials.

Equally 11 (34.4%) indicated that County Government should purchase these equipment citing that ECDE has been devolved to County Government. The respondents of 8 (25%) purported that variety and age appropriate materials be provided as they enhanced all aspect of development. This implied that if varied materials were availed, each child played with his or her own choice of materials and the respondents of 6 (18.8%) indicated that ECDE children to improvise more materials on their own in that it will develop their fine and gross motor development as well as other aspects of development. The respondents of 4 (12.5%) indicated that the provision of more materials by any well-wisher should be encouraged. This implied that majority of the ECDE teachers from the sampled ECDE centres depend entirely on School, Parents, and County Government to provide for these outdoor play facilities and materials.

Table 4.4 Opinions on outdoor play and holistic development

Opinions	Frequency	%
ECDE teacher to improvise more materials	11	34.4
ECDE learners to improvise more on their own	6	18.8
Parents to donate more materials for outdoor	19	59.4
School management should purchase outdoor play facilities	27	84.4
County government to purchase instead of the school management	11	34.4
Provide more materials	4	12.5
Variety and age appropriate materials be provided	8	25

4.8 Discussion of Findings

The researcher observed equipment and materials available in ECDE centres and children while undertaking their various outdoor play activities to ascertain holistic development. The researcher issued questionnaires to Head teacher and interviewed ECDE teachers based on the five objectives of this study which were; Availability of outdoor play facilities, appropriateness of outdoor play facilities, roles of the teacher in organizing outdoor play facilities, children's participation during outdoor play activities and challenges ECDE teacher faced during outdoor play activities and the findings were discussed as follows. In the representation of data, they were coded and ECDE centres were labelled with a letter S (S-1, S-2, S-3…...S-32) and interviewed participants numbered T (T-1, T-2, T-3, T-4….T32.).

4.8.1 Availability of Equipment, Space and Materials

The researcher through her own observation identified that majority of the sampled ECDE centres lack outdoor play equipment and only one swing was available in the three ECDE centres. Other equipment which include climbing ladders, slides, climbing frames, tunnels, balance, see saw were not available. Materials that were available and mostly used were balls and ropes. They were similar and age appropriate but not adequate compared to the number of learners thus learners utilised through sharing,

grouping themselves and turn taking. In addition Coe (2020), asserted that equipment can either be portable or fixed where fixed equipment might include slides, swings and play structures, while portable equipment might include toys, balls and gardening tools which were observed in the sampled ECDE centres.

Of relevance to this study, the findings contradicted the report of (Tarimo, 2013) on use of play as a teaching strategy which revealed that most preschools lack enough play materials to engage children in meaningful play activities. However, the results of this study agrees with those of (Ochanda, 2015) who established that many preschool in her sample had adequate play materials. From Ochanda's study, it was concluded that children from preschools with plenty of play materials shows a higher interest of participating in outdoor play activities as observed in the sampled ECDE centres .

Space was available and adequate in majority of the sampled ECDE centres and very few had space which was not adequate especially in private ECDE centres despite the fact that nearly all the teachers interviewed believed that availability of materials, facilities and equipment encouraged holistic development of the child in ECDE centres.

As the first theme, ECDE teachers thought of availability of outdoor play facilities and materials enhanced Holistic development occurred from the collected data. This theme covers responses to whether availability of outdoor play facilities and materials enhanced holistic development of the child in their ECDE centres or not. Majority of the ECDE teachers claimed that their centres lacked outdoor play equipment whereby materials were fairly available but three of them said that the outdoor facilities were available and adequate. One of the general context,

T-1 claimed that,

> *Availability of the swing as one of the outdoor equipment served the same purpose like other facilities which were not available since the teacher enhanced full participation among children through grouping and turn taking whereby various concept of holistic development were enhanced and children developed holistically.*

T-6 briefly asserted that,

> *Outdoor play materials were enough in her ECDE centre compared to the number of children whereby children play on the available materials without scrambling.*

Supporting this statement, T-7claimed that,

> *It was nice for children to have outdoor activities. I supported my children as long as I am accompanying them. However, I never let them out alone since one child might dominate on the playing equipment denying others the chance to play. In this case, this limited outdoor activities for children create disadvantages in terms of children' joy and development.*

In light of these statements, it can be seen that although few ECDE teachers feel favourably towards the availability of outdoor play equipment and materials, the rest of them have concerns with cost aspects. However, there was no direct procedure of purchasing them since these equipment were rarely improvised unlike the outdoor play materials which could be improvised locally. Additionally, outdoor play facilities and materials were crucial part of child's development hence should be considered by all the stake holders as they were part of children's developmental factors and should be availed in every ECDE centre.

4.8.2 Roles of Teachers during Outdoor Play activities

The researcher was able to identify various roles of the ECDE teachers by observing them during outdoor play activities and while conducting the interviews. These roles were similar to those of other studies which include (Yang, 2013) who also established teacher's roles as planning, facilitating, mediating, supporting and monitoring children outdoor play activities which were similar to findings in Figure 4.6. Though it was

observed that not all the teachers in the sampled ECDE centres involved directly or indirectly to children's play activities, majority of them were not seen playing with children though they provided the play materials. The implication of this was that teachers may fail to involve themselves to children outdoor play due to the tight schedule.

Majority of the respondents interviewed said they properly plan for outdoor activities based on the activity of the day and by assembling all the materials required for that day's activity. Only a negligible number said they preferred free choice activities. Additionally, majority of the teachers when asked about their roles during their outdoor play activities said that they supervise, ensure safety, demonstrate for the learners to observe and organize play activities. However few teachers who were of different opinions who included T-12 and T-22 indicated that;

T-12 indicated that

> *'I motivate my learners during outdoor especially those who tend to shy away and those who feel that their friends might be looked down upon them and denied the chance of playing, I also identify special children simply because some children needs special attention, for example one boy in my class feel so neglected hence to me he was a special case, while* T-22 indicated that *" I enhance communication among children during play in order to develop social skills and enhance problem solving skills as they share the available materials on their own. Additionally, I also assessed and evaluated them during outdoor play activities as i gave instructions and provide materials in order to enhance turn taking among themselves and ensure full participation among all children.*

Additionally, with reference to T-12 and T-22 Kalpogianni (2019), asserted that the presence of teachers during outdoor play was essential in supporting children in the understanding of the dynamics of nature such as risks and opportunities. Educators can provide a supportive environment in which children can develop communication skills, imagination, cooperation, flexibility and different perspectives. Similarly, Erdem

(2018) found that preschool educators have different opinions and practices regarding their mandate. While some teachers acknowledge the role of outdoor activities in childhood development, they do not embrace such activities for reasons such as safety risks, injuries and weather conditions. As a result, these educators prefer indoor play with ropes and balls. However, this practice was contrary to the requirement that children have the opportunity to spend time outdoors each day. They include T-16 and T-25, who asserted that;

T-25 claimed that;

> *Children can developed holistically either in outdoor or indoor hence should be encouraged to participate in indoors, " there was no need for children to participate in outdoor activities especially in my centre where the outdoor space was inadequate and the playground is not well fenced''* where as T-25 *claimed that children can stray because the field was partially fenced and the road was adjacent to the centre and when the ball is kicked outside children tend to bring it back risking their lives hence it is good if indoor activities are organized well to enhance their general development.*

4.8.3 Appropriateness of Outdoor Play Facilities and materials

The researcher revealed through observation of outdoor play facilities and materials that the age of the learner was appropriate to that of outdoor play facilities and materials available in the ECDE centres making a (100%) as learners were able to utilize with ease for example the available tyres were of the size of the learners, the ropes, balls and tyres were of children's age and various aspect of development were enhance as communication and sharing was enhanced which was social development, counting and assigning numbers was enhanced hence cognitive development, jumping over the rope, racing with the tyre enhances physical development and feeling empathy for their friends when they lose the game enhances emotional development.

The respondents were asked on how children utilized outdoor play equipment and materials either with ease or they scramble and the respondents 28(87.5%) explained

that children utilize the available materials with ease through grouping, turn taking, sharing, teacher controlling the class and introducing a new game while a 4 (12.5%) explained that children scramble for the few that were available due to poor class control, large class size and inadequacy of materials in the centre and some ECDE teachers were strongly in support of this in that T-14, claimed that;

> *"I ensured that all the materials available in my centre are age appropriate before I let the children out for play and I enhance this through improvisation whereby I encourage my children to improvise these materials especially the balls that they can handle with ease through throw and catch the ball activity".*

Another teacher, T-28 indicated that

> "*I request older children to improvise for these young children by assigning some specific older boys especially during Fridays so that they improvise over weekends and availed them on Monday. Tyres also were availed by these older children as during weekends they will look for them hence it has assisted my class greatly".*

4.8.4 Children's participation on Outdoor Play Activities

The researcher observed all children as a group during their outdoor play activities and the time children took during outdoor play activities and variation on time was seen. The researcher made the same observation where majority of the sample ECDE centres group their children into small manageable groups especially in private ECDE centres where turn taking was enhanced among children and each child had to participate with the available materials. Therefore, the researcher realized that before ECDE teachers provide the outdoor play facilities and materials, they ensured that they were appropriate in terms of age of the learners and size to avoid any injury. The respondents were asked to state the amount of outdoor play time children should be experiencing while at school and Figure 4.5 showed their findings. It was revealed that, most schools had set aside forty minutes and thirty minutes for outdoor activities at about 9 (28.1%) each citing that it was in accordance with ECDE curriculum in Kenya which advocate for 30 minutes for outdoor play activities on daily basis.

> *Majority of teachers in the sampled ECDE centres indicated that the 30 minutes they set aside was according to time table citing that they only extend indoors to outdoors and they focus on the theme of the day hence the time in the syllabus was enough to them. Another group which was majority also claimed that they allowed 40 minutes for their children in that the extra 10 minutes they set aside apart from the 30minutes in the syllabus were meant for competition and relaxation hence they claimed that 30 minutes to them were not enough as children enjoyed being outdoors and they feel to be left to play for longer hours.*

Teachers who were T-1, T-5, T-16, T-19 and T-21 all asserted that;

> We *set aside 35 minutes for outdoor play activities citing that the 30 minutes that children were given according to the syllabus were not enough and the extra 5 minutes are meant for relaxation and cooling before they head to class where they will be active again.*

Teachers T-4, T-8 and T-11 had different views and they indicated that

> *1 hour is preferred in that children when given the 30 minutes that was in the syllabus is not enough and they yearn for more time to play because they enjoyed being outdoors than indoors hence the ECDE syllabus should be revised and more time for outdoor play activities should be increased as children can also learn and develop holistically and indoor activities would not be hindered by allocating more time for outdoors.*

T-2 and T-14 hold different views citing that

> *The 50 minutes they allocate to children in their centres feel that it was enough as children are introduced into a play after teacher demonstrating and each learner to participate in. Also children enhance turn taking since materials were not adequate in the centre.*

T-13 and T-17 both were from the private centres each indicated that;

> *I set aside 45 minutes irrespective of the syllabus because children love playing and denying them a chance to play is like denying their general growth. The 45 minutes set aside are meant for introducing the game, participation and reinforcing what has been learnt in class in order to retain the content through play. They later cool their bodies and get back to class and learning continues.*

Respondent T-7 and T-20 both said that they set aside 20 minutes citing that;

> *Children will develop anywhere despite denying the chance to play. The 20 minutes that i set aside for them were just meant for relaxation because i do not accompany them to the field. I only release them and give them outdoor play equipment and materials that they use during their plays. Similarly during indoors i had a chance to assess them*

> *and ascertain whether there was any development either physical, cognitive or emotionally. To me there was no need of taking children outside as they enjoyed outdoors during their normal break time with older children.*

Respondents were asked to state their opinion on how much outdoor play time they believed ECDE learners should be experiencing while at school, and majority 25 (78.1%) believed that 30 minutes to one hour was recommendable citing that children like playing and development of the child was enhanced. Also children experiencing various materials requires enough time in order to play with all the materials that were available in their outdoor play space while the rest 7 (21.9%) believed that less than 30 minutes was adequate for children citing that a lot of class work had to be done hence did not believe in outdoor play in enhancing development of the child thus this finding supports the assertion of (Okoruwa, 2017) that many teachers have a lot of paperwork to do which inhibit them from taking children out of the classroom for outdoor activities thus the researcher pointed out that children should participate in outdoor play as stipulated in the ECDE curriculum on daily basis.

ECDE children participated in outdoor play activities in their ECDE centres and analysis is shown in Figure 4.9, whereby the 87.5% concur with the ECDE curriculum which required children to participate on daily basis on their outdoor play activities while 12.5% participated 2-3 times a week.

The findings concurred with findings of (Carsley, et al., 2017) that most children in preschools and day care centres spent an average of 60 minutes in outdoor play every day and contrary to this statement, the findings of (Okoruwa, 2017) who established that preschool children spend more time in classrooms and their outdoor play time was

limited hence the findings of this study indicated that ECDE teachers engaged their children in outdoor play activities.

Based on the findings, it was revealed that most of the ECDE teachers engage their children on a daily basis in outdoor play activities giving 28 (87.5%) citing out that outdoor play activities are important for the development of ECDE children and more so as stipulated in the ECDE curriculum. ECDE teachers believed that when children are engaged daily in outdoor play activities, various aspects of development are enhanced and children are not necessary expected to be assessed during class work only.

However there were few ECDE teachers for example T-19 asserted that;

> *"I believed that outdoor activities cannot take place daily but four times a week in my centre and that one day was meant for hygiene routine. Additionally, i believed that children are able to develop despite one day where children are not involved in outdoor play activities".*

Another participant T-23 claimed that

> *"In my centre, i engaged children in outdoor play activities for three times a week as it was enough to enhance holistic development of the child, so long as plenty of outdoor play materials are availed hence it was not a must to be a daily activity as recommendable in the curriculum.*

Another participant T-26 claimed that "*Only two times per week was enough for ECDE children to participate in outdoor play activities and other days were used for academic purposes''*. These findings were contrary to the findings of (Okoruwa, 2017) who established that preschool children spend more time in classrooms and their outdoor play time was limited however this findings concur with Philiph (2015) whose findings established that all preschool teachers engage their children in outdoor play on a daily basis. This results, therefore, implied that teachers are aware of the importance of engaging children in outdoor play activities as a daily basis.

The respondents were asked to indicate the activities children involved in during outdoor play time that do not require the use of outdoor play materials in case there was inadequacy of materials as was seen in most ECDE centres and other children were utilizing the available outdoor play facilities and materials, other children engaged in various activities and Figure 4.8 revealed their responses. It was revealed that most children 27 (84.4%) like running round the field since the field was spacious in most ECDE centres, jumping as they count, making a circle and jogging around after running. A small percentage 5 (15.6%) who were (T-4, T-5, T-7, T-12 and T-24) generally indicated that;

> *Children like clapping their hands especially during a competition and doing frog jumping where competition was enhanced and the winner determined as whoever reached the finishing point was termed a winner. This mean that nearly all the sampled ECDE centres do not like these games citing that there was no fun or enjoyment experienced by the children as it was more of individual play.*

The researcher sought to investigate whether there was development of skills when children were engaged in their outdoor play activities given that outdoor play facilities and materials were appropriate. The findings indicated that a small percentage 3 (9.4%) indicated that the skills developed during outdoor play activities include communication skills, problem solving skills and socialization which were enhanced through grouping, turn taking, sharing the few materials and participation where by T-5, T-12 and T-21 all claimed that;

> *Once children were provided with various outdoor play equipment and materials which were age appropriate then at least a skill will be developed. This was where children encountered so many materials in their centres and playing with them with friends encouraged communication skills through sharing, turn taking and even during competition.*

A good number of 29(90.6%) indicated that there were no skills developed due to inadequacy of materials where children scramble for the few facilities and materials available.

The respondents were asked to state the time they took their children out for outdoor play activities and explain their responses and Figure 4.10 represents their responses and the respondents who took their children for outdoor play activities during morning hours were T-1, T-6, T-18, T-19 and T-29 who generally believed that;

> *''Children are still active during morning hours'' and they were 5 (15.6%) citing that children should be engaged in outdoor play activities when they are still active and full of energy so that they relax later during the day when they are exhausted with class work.*

The rest who were majority of the respondents took their children out for outdoor play activities during mid- morning believed that;

> *Children extend their class activities to outdoor play and also to break the class monotony. They also indicated that during midmorning, children were almost getting exhausted hence taking them for outdoor play activities would regained their energy and become active during class time again.*

While respondents T-8 and T-11 took their children out for outdoor play activities during noon time believed that;

> *It was for relaxation purposes as children are exhausted during noon hours and their concentration level is very low hence it is good when they are taught during morning hours when they are still active and after their class work is when they are best taken out for relaxation. Again children loved to play irrespective of time of the day and when the necessary materials and facilities are availed, they will play and achieve maximum development even at noon hours.*

The respondents were asked to state and explain where they took their children for outdoor play activities and a (100%) response rate was obtained that children are taken to the field or the playground for maximum participation as it was spacious and it could accommodate the number of ECDE children in each centre whereby grouping of

learners for competition was enhanced, turn taking and sharing outdoor play equipment and materials. ECDE teacher can ascertain various aspects of development among children as there was enough space for ECDE children to work on.

The respondents were asked if the area/space for outdoor play activities was adequate. Their responses were figured out in Figure 4.11. Based on this findings it was revealed that most 30 (93.8%) perceived the available space as adequate while 2 (6.2%) T-5 and T-20 both indicated that;

> *The available space was inadequate for outdoor play activities, since most of the private ECDE centres do not considered providing enough space for outdoor play activities hence they were only concerned about establishing structures like classrooms and maybe boarding facilities. With regard to this, all the stake holders of private ECDE centres should consider that the space should be enough both for outdoor play and various structures.*

This implied that the adequacy of outdoor play space should be considered before establishing the center as the 2 (6.2%) were from the private ECDE centres. Also if the population of children continue to grow, it should also accommodate all of them both in class and during outdoor play activities in order to enhance general development.

The respondents were asked to state and explain activities that children participate in while in the playground whether planned, unplanned, guided and free choice activities and Figure 4.12 showed analysis of the findings. The respondents of 13 (40.6%) revealed that activities were planned according to the activity of the day while respondents of 2 (6.3%) revealed that children engaged in activities that were unplanned according to the availability of the materials and respondents of 17(53.1%) revealed that children engaged in both guided activities as the teacher planned for and unplanned activities as children engaged in free choice activities. This means that more than half 17(53.1%) of ECDE teachers accompanied their children to the field and supervised

them in order to undertake the guided plays and later on leave children to engage in other activities of their preferences which were not guided. The 13(40.6%) planned for the activity of the day based on the theme of that day. In this case, ECDE teacher was compelled to avail relevant materials for that day and the respondents of T-2 and T-18 cited that;

> *Availability of materials determines the activity of the day hence if materials were not available then no activity is enhanced. Additionally, T-18 indicated that in my centre, children only ran round the field and enjoyed free choice activities if outdoor play materials were not provided and they enjoyed their plays.*

Basing on the above analysis, it was revealed that more than half of the ECDE teachers from the sampled ECDE centres engaged their children in both guided and free choice activities and majority also of the ECDE teachers participated in the planned activities based on the activity of the day.

4.8.5 Challenges faced by ECDE Teachers during Outdoor Play Activities

The researcher identified various challenges faced by ECDE teachers before and during their outdoor play activities as she observed children during their various plays. The respondent were asked if they have the safety and regulation guide in their centres and how does it influence children's participation during outdoor play activities and the responses as indicated in Figure 4.13 were 1 (3.1%) indicated that it enhanced full participation as children were guided well while those who did not have 31 (96.9%) were asked why and how their children were guided to participate during outdoor play activities and their response were shown in Figure 4.14 where a larger percentage 26 (81.3%) indicated that they guide children with their working experience they had gained as majority of them have a working experience of 6-10 years meaning that they understand the guidelines as they have been working with children.

Respondents of 12 (37.5%) indicated that they use knowledge gained during training and syllabus. This was supported by their professional qualification where all the ECDE teachers from the sampled centres were qualified as they had trained in certificate and Diploma. Syllabus was available in all the ECDE centres and it helped in guiding the ECDE teachers. The respondents of 9(28.1%) use scheme of work citing that they introduce the activity, present, develop and conclude it. The smaller percentage of 3 (9.4%) use the assessment book to guide children during outdoor play activities were T-6, T-14 and T-22 further explain that;

T-6 asserted that

"*when each and every child is being enrolled and as their teacher in charge, I develop an assessment book for every child. In this book, I marked it as a register in the field as children participates in outdoor play activities, I used it to guide and I am able to determine their development*".

T-14, indicated that,

"*with the help of the assessment book, I am in a position to guide my children during outdoor play activities because if children did not perform well in the previous lesson, then I will repeat the same activities until they have acquired what I intended them to acquire since I am in control of the class and the free choice activities were minimal since I wanted them to learn a certain concept".*

T-22 claimed that,

"*after each and every outdoor activities, I assess my children and record their progress as it helped me especially when distributing the available facilities and materials for the next outdoor play time. Again slow learners were ensured that they were involved in participation. With the assessment, it helped in ensuring that all the activities that I had planned for were all practiced and supervision was one of my role during children's outdoor activities''.*

The respondents were asked what they normally do in case there was shortages of outdoor play facilities and materials during outdoor play and their responses were analysed as in Figure 4:15 and it was indicated that most of the ECDE teachers 28 (87.5%) ensured turn taking citing that they had a high population of ECDE children

compared to the available facilities and materials and it was majorly public ECDE centres. Grouping of learners also 22 (68.8%) take a higher percentage whereby ECDE teachers group children basing on children's abilities, gender and choice of activities. Boys like playing with balls and tyres and girls like playing with balls and ropes. The respondents of 15 (46.9%) indicated that they improvised more materials citing that materials to be improvised were readily available. This is because children use them and they may not store them well hence get lost after use.

The respondents of 7(21.9%) each indicated that they shared the available materials as materials to be improvised were not available while the other 7(21.9%) indicated that they introduced another game/play which did not require the use of outdoor play equipment or materials. The smallest percentage of 2 (6.25%) indicated that they controlled the class and they were T-22 and T-27 majorly private ECDE centres where T-22 asserted that;

> *"The space was inadequate for play and materials available were few since all the outdoor play facilities were not available and materials that were availed had nowhere to be erected because space was limited hence I encouraged children to avail the small and available materials which include balls, ropes and tyres only.*

T-27 claimed that

> *"controlling the class was my major role during outdoor play activities because the materials that were available were inadequate despite the population of children being small. The space also was inadequate hence children were not able to participate in their free choice activities and competition was not enhanced. I ensured that I controlled the class in order for each and every child to participate without any one dominating the activity, material or play*.

The respondents were also asked to state how they ensured safety of the play area and play materials/equipment and their responses were analysed as shown in Table 4.3. The findings indicated that storing the materials safely after use has a higher percentage

28(87.5%). This implied that ECDE teacher trained their children on their responsibilities of storing the materials safely after use as they await the next activity of the day an indication that it was a primary way of ensuring safety of the play space and materials. Respondents of 21(65.6%) remove unwanted materials from the field. This was because the playground was used by the entire school hence they might have left unwanted materials, 16 (50%) of the respondents inspected the field first before engaging children with outdoor play activities. The respondents of 15(46.9%) filled the existing holes citing that some of the plays which boys engage in during free choice activities include drilling of holes and leaving them without filling hence the ECDE teacher should consider filling them before the actual outdoor play activities.

The respondents of 4 (12.5%) collect the materials after use and they were T-2, T-8, T-16 and T-18 who generally indicated that;

> *Collection of the materials after use was not considered a major way of ensuring safety of the play as indicated by the percentage but they were meant for the next lesson in that children before participating in the next outdoor play activities, the facilities and materials are availed.*

The respondents of 3(9.4%) indicated that they control the class and fence the field also and they were T-5, T-11 and T-23 who generally indicated that

> "*since our field was not fully fenced, we ensure that it was fenced to ensure children's safety for them not to stray during their outdoor activities hence controlling the class was a major role in order to avoid children tampering with the materials and any risk among children since the school was along the highway''.*

The respondents were asked to state challenges they faced during outdoor play activities and the analysis of their responses were shown in Figure 4:16. It was evident that most of the ECDE centres lack enough facilities and materials with a frequency of 30 (93.8%). This implied that even though outdoor play materials were available, they were inadequate compared to the number of children for example one ball, one rope

and a tyre as observed by the researcher in most of the ECDE centres was inadequate for the entire ECDE class where children's population was almost fifty.

Lack of outdoor play facilities was a major challenge in most sampled ECDE centres giving 25(78.1%). This was also observed by the researcher whereby facilities that were not available in all the sampled ECDE centres included climbing ladders, climbing frames, tunnels, see saw and beam balance and the respondents indicated that they were expensive to buy or improvised. Interference by other learners was another challenge experienced by a number of ECDE teachers. This was, despite the field being spacious, children love playing and they interfered with other children without their awareness.

The respondents of 3(9.4%) each indicate difference in abilities and ages as a major challenge. This implies that despite ECDE children seemed to be of same age, they tend to vary in abilities hence posed a challenge during outdoor play activities whereby some children handle the facility and material easily than others and the other 3(9.4%) indicated that there was dominance among other children whereby when one got a materials, he or she wanted to play with it till the end without giving others a chance to play with. Large size of class of 2(6.3%) indicated that there was a high population in their centres and the few materials available were not proportional in terms of number. The smallest percentage of 1(9.45%) indicated that there was lack of cooperation among learners and this implies that each child had his or her own interest during outdoor play activities. T-27 further indicated that;

> *Children are not cooperative during outdoor play because of different interests and lack of outdoor play facilities and materials. Children play their own individual plays as inadequate materials make them bored waiting for the only one material which was ball to play with. As a teacher, I was not able to control the class as children were all in different corners of the field playing freely''.*

The respondents were also asked to state how they overcome these challenges as stated above and analysed in Figure 4:17. Based on the responses on Figure 4:17, ECDE teachers indicated their responses by giving out the frequency and the percentage and grouping of learners 16 (50%) was the major one as it was more than half of the sampled ECDE teachers. This implied that grouping of learners as the main due to inadequacy of outdoor play equipment and materials and through grouping each child would get an equal chance to participate during outdoor play activities. Controlling the class, 15 (46.9%) was another major way of overcoming the challenge. This indicated that if the teacher took control of the class, then there would be no scrambling of the few available equipment and materials. Turn taking also had a larger percentage 13 (40.6%) where ECDE teachers indicated that they overcome the inadequacy of outdoor play equipment and materials by ensuring that turns were taken among ECDE children so that each child participated in outdoor play activities. The respondents of 5 (15.75%) indicated that they shared the available materials. It was supported by T-10 and T-19 who indicated that the population in their centres were high hence overstretching the available facilities and materials hence they indicated that;

> *Through sharing the available equipment and materials, children enhanced full participation among themselves during outdoor play activities because each child utilized the available material that was availed by the teacher*.

Storing the materials safely after use as indicated by respondents of 3 (9.4%) helped in overcoming the challenge of few materials during the next activity as it enabled its safety and availability. 1 (3.1%) each indicated that they ensured one game per day and instruct the learners. This implied that children were instructed either to wait for his or her turn in order to play with the equipment or materials and introducing one game per day means that the ECDE teacher only focused on one event and all learners were to play one game only.

The respondents were asked to recommend outdoor play activities in relation to holistic development and their responses were analysed as shown in Table 4.4. Based on the above analysis, a higher percentage 27(84.4%) recommended that school management should purchase outdoor play facilities using the community development fund which include the slides, beam balance, tunnels, see saw, climbing ladders and frames citing that they were expensive for parents to buy and availability of these materials helps children in developing various aspects of development. The respondents of 19(59.4%) indicated that parents should donate more materials for outdoor play activities citing that there is availability of these materials hence donation was encouraged. Old tyres, improvised ropes and balls could be donated to ECDE centres for outdoor play activities. The respondents of 11(34.4%) indicated that ECDE teacher to improvise more materials on their own citing that she had relevant knowledge and had what it take during improvisation of these outdoor play materials. Equally 11(34.4%) indicated that County Government to purchase these equipment citing that ECDE has been devolved to Counties.

The respondents of 8 (25%) purported that variety and age appropriate materials be provided as it enhanced all aspect of development. This implied that if varied materials were availed, each child was to play with his or her own choice of materials and the respondents of 6(18.8%) indicated that ECDE children to improvise more materials on their own citing that it would enhanced fine and gross motor development as well as other aspects of development. The respondents of 4 (12.5%) indicated that the provision of more materials by any well-wisher should be encouraged. This implied that majority of the ECDE teachers from the sampled ECDE centres depend entirely on School, Parents, and County Government to provide for these outdoor play materials. Thus, Schools should provide or improvise play facilities and materials to enhance holistic

development through play, the ministry of Education should provide policy guidelines to all pre-schools with regard to pre-school education, in service training for teachers on the use of outdoor play to enhance holistic development, curriculum and support materials.

Majority of the interviewed respondents indicated that:

> *Parents should donate the outdoor play facilities and materials, Teacher to improvise more materials and encourage older children to improvise also, County Government should consider purchasing the outdoor play facilities since they are expensive for the school to purchase*.

However, few teachers indicated that;

> *Outdoor play facilities and materials should be donated by any well-wishers either in the county or country irrespective of any department they hold. Even nongovernmental organisations are encouraged to donate also since most of the ECDE centres lack majority of these outdoor play equipment and materials for outdoor play activities.*

4.9 Chapter Summary

In this chapter the analysed results were presented objective by objective. The results were also interpreted and discussed based on the objectives**.** The chapter was important as it revealed the outcome of the study. Results from the researcher on observation schedule and observation checklist, interview from ECDE teacher and filling in of questionnaire from the Head teacher were all analysed and presented based on the objective.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gave the summary of the study and answers to the research questions. It further made recommendations on issues relating to the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-county based on the study objectives.

5.2 Summary of Findings

The purpose of this study was to investigate the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-county, Kenya. The study targeted ECDE teachers and head teachers in 36 sampled centres. The researcher made use of questionnaires and interview schedules as well as observation schedules

The study revealed that:

Different types of outdoor play equipment and materials that were available were in use in the sampled ECDE centres in Bomet East Sub-county. They included few improvised swings, balls, ropes, tyres, clay, sticks and clay. Balls and ropes were the most utilized by ECDE children due to their accessibility and can be improvised easily. Despite the inadequacy of these outdoor play facilities, ECDE teachers were able to enhance full participation among children through grouping, sharing, turn taking and controlling the class hence it enhanced holistic development among children. Other outdoor play facilities that were not available at all in the sampled ECDE centres and they should have been included are, climbing ladders, climbing frames, stairways, tunnels, swings, merry go round and platforms.

Most sampled ECDE centres engaged their children in appropriate plays whereby the available equipment and materials children played with were easily handled compared to the age of the learners. For example Balls, Ropes, Stick and other available materials therefore it enhanced holistic development of the child in the ECDE centre. Tyres were handled with ease with some learners while other learners were not able to handle as they were larger in size compared to the child's ability.

The study also revealed that the main roles of the teacher during outdoor play activities were majorly planning, grouping and ensuring turn taking for the activities as well as ensuring full participation. It was also observed that all the ECDE teachers from the sampled ECDE centres were not aware of various roles they should undertake during outdoor play activities as most teachers did not accompany their children during their outdoor play activities, provide outdoor play materials, control the class and ensure safety among children during their outdoor activities due to their busy schedule of class work and notes making.

It was also found out that children in most ECDE centres participated in guided activities daily during mid-day using different materials and most of them run around the field. Based on the observation made by the researcher, lack of various outdoor play equipment for various outdoor play activities denied children the chance to participate in various play which would have enhanced their full participation during outdoor play activities thus enhanced holistic development of the child.

Challenges faced by the ECDE teachers during outdoor play activities in their centres majorly include; lack of outdoor play equipment, inadequate outdoor play materials, lack of supervision during outdoor play activities due to high number of children when children are grouped into various groups, interference among other children during

outdoor play activities, lack of lockable cupboards to store the materials after use and poor class control.

5.3 Conclusions

In conclusion, outdoor play was a critical factor in building children's academic, physical, social and emotional growth. Outdoor play has been undermined in previous decades, with adults ignoring the benefits it brought to children's development. Outdoor play cut across academics and their spheres, which made it important. Similarly, it was clear that individual form their habits and character during their early formative ages, where they learn to comprehend things and enact them practically thus adults tend to act as gatekeepers or supervisors who oversee these activities.

Play that was free and unrestricted builds children's brains, with the prefrontal cortex being bigger as compared those of other children that do not have unconstrained play. Schools need to ensure that all children are given ample amount of time during the school day for play. Doing this would foster a student's skills, including social, emotional, cognitive, language, critical thinking and various other skills needed for a successful life. Though much more research was necessary, play was an essential factor for children in their early education.

Based on the study findings, the study concluded that*:*

Most of the ECDE centres had no equipment in that the available ones were 3 ECDE centres who had one swing each. Other equipment which include the climbing ladders, climbing frames, tunnels, see-saw, balance, rumps, rings and hoops were not available in all the sampled ECDE centres despite ECDE teachers indicating that their availability enhance holistic development of the child. Space was available in majority of the sampled ECDE centres and was adequate compared to the number of children in each

centre, only few private ECDE centres have a relatively small space. Materials for outdoor play in all the sampled ECDE centres were available despite being inadequate, ECDE teachers were able to group learners, ensure turn taking and share the available materials in order for every child to participate during outdoor play activities.

The main roles of the ECDE teachers were to plan, ensure turn taking and grouping children for the outdoor plays. Furthermore, majority of ECDE teachers had no other various roles which could have included provision of materials, ensure turn taking, grouping of learners, control the class, ensured safety and participation which could have further enhanced the holistic development of the child in ECDE centres.

The outdoor play equipment and materials available were appropriate to the age of the learners. Children could be seen swinging using the swing with ease as they climb up and down without difficulties. The ropes, balls, tyres, clay and sticks were appropriate to their age of the learners thus were appropriate for holistic development of the children however other equipment were not available at all hence cannot be concluded on how they could have influenced the holistic development of the child.

Also most children at the sampled ECDE centres participate in guided outdoor activities. However, some engaged in free choice activities due to inadequacy of materials especially in public ECDE centres where there was a high enrolment of children. They participated fully through turn taking, grouping and sharing the available facilities and materials.

ECDE teachers experienced a lot of challenges which include inadequacy of play facilities and materials, poor control of class, interference among other children, inadequate time for outdoor play where children yearn to play more when play time was over. Poor supervision and inadequate relevant knowledge on how to engage

children during outdoor play for holistic development as majority were focused on cognitive and physical development only.

5.4 Recommendations

Based on the foregoing findings and conclusions the study made the following recommendations:

The County government of Bomet should consider purchasing the outdoor equipment since ECDE had been devolved and these equipment are expensive for parents to purchase and the ECDE teachers and head teachers should invent ways to acquire more outdoor play materials for children by making them locally, though improvisation and encourage donation.

The relevant stakeholders should ensure that they provide these outdoor play facilities through purchasing, donation from any other charitable organization. Outdoor play materials available at the centres were appropriate for the children's holistic development therefore, ECDE teachers should ensure full participation to enhance holistic development of the child.

School Head teachers should ensure that ECDE children are taken out daily for outdoor play activities in order to enhance their holistic development and advise teachers to involve themselves in children plays and teachers be made aware of their various roles which in turn will enhance children's participation during their outdoor play activities and the importance of outdoor play activities among ECDE children in terms of their holistic development.

As most children do not independently participate in full range of outdoor play there is need for the teachers and head teachers to encourage children to take part in as many activities as possible provided that materials and equipment were available. To enhance

this, the ECDE teacher should accompany children to the playground and play their roles adequately for children to participate fully in their outdoor play activities for their holistic development to be enhanced.

5.5 Recommendations for Further Study

Based on the findings, the following recommendations were made:

Though the study attempted to determine utilization of outdoor play in an enhanced holistic development of the child in Bomet East Sub-County, it means that the study findings cannot be generalised to reflect the situation of the entire County. Therefore, it would be necessary to conduct the same study in other regions of the Bomet County to find out whether similar results would be obtained.

Play is an essential part of children's daily life and it promotes all round child development thus there is need for all ECDE stakeholders to pull efforts together in order to provide adequate and relevant outdoor play equipment and materials to enhance holistic development of the child.

There is need to carry out a research to find out the perception of teachers on how parents and the government could enhance outdoor play activities in ECDE centres in Kenya in order to enhance holistic development of the child.

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APPENDICES

Appendix I: Letter of Introduction

Dear respondents,

I am Evalyne Chepngetich Ndugi, a post graduate student at Moi University. I am carrying out a research to investigate the utilization of outdoor play in an enhanced holistic development of the child in ECDE centres in Bomet East Sub-county, Bomet County. I kindly request you to assist me by honestly responding to all the questions in this questionnaire. The information that you will provide in this questionnaire are strictly meant for academic purpose and will be treated with confidentiality.

Thanks in advance.

Signature

…….

Appendix II: Observation Checklist

A Checklist on availability of outdoor play materials, facilities and equipment in ECDE centre

School code……

Facility/ equipment	Yes	No		Description
Playground			Available	
			Quantity	
			Quality	
Tunnels			Available	
			Quantity	
			Quality	
Climbing ladders			Available	
			Quantity	
			Quality	
Climbing frames			Available	
			Quantity	
			Quality	
Swings			Available	
			Quantity	
			Quality	
See-saw			Available	
			Quantity	
			Quality	
Slides			Available	

			Quantity	
			Quality	
Beam balance			Available	
			Quantity	
			Quantity	
			Quality	
Balls			Available	
			Quantity	
			Quality	
Tyres			Available	
			Quantity	
			Quality	
Rings			Available	
			Quantity	
			Quality	
Hoops			Available	
			Quantity	
			Quality	
Skipping ropes			Available	
			Quantity	
			Quality	
Logs			Available	
			Quantity	

			Quality	
Bean bags			Available	
			Quantity	
			Quality	
Sags			Available	
			Quantity	
			Quality	
Landing mats			Available	
			Quantity	
			Quality	
Water play areas			Available	
			Quantity	
			Quality	
Others (Specify)s			Available	
			Quantity	
			Quality	

Appendix III: Observation Schedule

School code……

Outdoor play activities performed by learners to enhance holistic development.

Activities	Yes	No	Explanation
Can do physical activities			
Can follow the rules of the game			
Can share the equipment			
Can console with others			
Can take turn with others			
Can make their decisions			
Can solve the problems			
Can communicate among themselves			
Can enhance their creativity			
Can follow instructions from their teacher			
Can walk in rhythm			
Can jump over the rope			
Can climb ladders			
Can slide themselves using slides			
Can throw bean bags among themselves			

Appendix IV: Interview Schedule for ECDE Teachers

A. Personal information

1) What type of ECDE centre are you currently heading?

2) What was your teaching experience as an ECDE Teacher?

3) What was your highest academic qualification?

B. Availability of outdoor play facilities

1 a). How would you describe the adequacy of equipment, space and materials compared to the number of children in your ECDE centre to outdoor play?

b) Does this encourage holistic development of the child/pupil?

C. Appropriateness of outdoor play facilities

1) How would you rate the appropriateness of outdoor play materials in your ECDE centre in terms with respect to the age of the learners?

2) Was the size of materials relevant to the age of the learners? Explain

3) Do children utilize outdoor play equipment/facilities and materials with ease or they are scrambling for the few that are available? Explain

D. Roles of the teachers during outdoor play activities

1) Do you plan for the outdoor play activities properly compared to other activity areas?

2) Who was responsible for supervising ECDE children during outdoor play activities in your ECDE centre?

3) What was your role as an ECDE teacher during outdoor play activities?

4) How do you arrange outdoor play facilities in the outdoor play space? Explain

E. Participation of outdoor play activities

1) What amount of outdoor play time do you believe ECDE learners should be experiencing while at school?

2) Do you believe that outdoor play was a distraction or beneficial to ECDE learners?

3) How often do ECDE children participate in outdoor play activities in your ECDE centre?

4) Which outdoor play facilities and materials do children like participating with during outdoor play time?

5) What activities do children involve in during outdoor activities that does not require the use of outdoor play materials?

6) Do children undertake outdoor play activities that are relevant to holistic development given that outdoor play facilities are appropriate? Explain and describe the skill developed

7) At what time do you take the children out for play? Explain your response

8) How long do they participate in outdoor play activities? Explain

9) Where do you take the children for outdoor activities? Give reason for your answer

10) Was the area/space for outdoor activities adequate? Explain your answer

11) What outdoor activities do children participate in while in the playground? Planned, unplanned or both, Explain your response

F. Challenges faced by ECDE teachers during outdoor play activities

1) Does your ECDE centre have safety and regulation guide?

a) If yes, how does it influence children's participation during outdoor play activities?

b) If No, state why and how these ECDE children are guided to participate during their outdoor play activities

2) What do you normally do in case there are shortages of outdoor play facilities and materials during outdoor play?

3) How would you ensure the safety of the play area and play materials/ equipment?

4) What challenges do you face during outdoor play activities?

5) How do you overcome them?

6) What do you say or recommend concerning outdoor play activities in relation to holistic development?

Appendix V: Questionnaire Schedule for Head Teacher/ Deputy Head Teacher

Instructions

i Check/tick in the appropriate boxes

ii Fill in the blank spaces provided appropriately

A. Personal information

1. Indicate the type of ECDE centre you are currently heading

( ) Public ( ) private

2. How long have you been heading the school and the current ECDE centre as the Head teacher/Deputy head teacher?

( ) less than 1 year ( ) 1-5 Years ( ) 5-10 Years ( ) over 10 Years

3. What was your highest level of academic qualification?

( ) masters ( ) degree ( ) diploma ( ) certificate

B. Availability of outdoor play facilities

1. a. Do you provide children with outdoor play materials?

( ) Yes ( ) No

b. If yes, in (1a) above which materials?

……

……....

c. If No in (1a) above, indicate any other type of materials you provide and their importance

Holistic development of ECDE children?

……

……

2. How will you as the Head teacher/deputy head teacher ensure that outdoor play facilities, equipment and materials available are safe for children to use?

.....

.....

3. How often do you maintain the available outdoor play facilities, equipment and materials in your centres?

( ) Daily

( ) Weekly

( ) Monthly

( ) Termly

( ) Yearly

( ) Others,

Explain……

……...……

C. Teacher's roles in organizing outdoor play activities

1) Do you have any role to ensure that there was connection between the use of materials and Holistic development of the child?

( ) Yes ( ) No

Explain your response……

2) Who was responsible for supervision of children during outdoor play activities?

( ) Head teacher/deputy head teacher

( ) Pre-school teacher

( ) ECDE manager

( ) School care taker

3) Do you advice the parents on the importance of outdoor play activities on Holistic Development of the child?

( ) Yes ( ) No

a. Explain your response……

……

b. If No in 3 (a), why? Explain ……

c. How do they contribute to the provision of outdoor play equipment and materials?

……

……

4) Do you ensure safety for the children during their outdoor play activities?

( ) Yes ( ) No

Explain your response……..……..

5) Who was responsible for ensuring safety of learners during outdoor play activities?

Explain your response……

D. Appropriateness of outdoor play facilities

1) Are outdoor play facilities and materials appropriate to the age of the learners?

( ) Yes ( ) No

Explain your response……..

2) Are outdoor play facilities and materials adequate to the number of learners?

( ) Yes ( ) No

Explain your answer……

3) Are the available outdoor play facilities and materials' size relevant to the age of the learners?

( ) Yes ( ) No

Explain your response……

4) Was time allocated for outdoor play activities appropriate for holistic development?

( ) Yes ( ) No

Explain your response…….

E. Participation of outdoor play activities.

1) Does the school have playground safety rules and regulations guidelines?

( ) Yes ( ) No

Explain your response……

2) Does the school conform to the playground safety rules and regulations?

Explain your response……..

3) Was the one in charge of ECDE centres conversant with the playground safety rules and regulations guidelines?

Explain your response……

F. Challenges facing teachers during outdoor play activities

1) Was outdoor play space adequate in relation to number of pupils?

( ) Yes ( ) No

Explain your response…….....

2) Are outdoor play facilities adequate in relation to the class size?

( ) Yes ( ) No

Explain your response…….

3) Are there challenges reported to you during children's outdoor activities?

( ) Yes ( ) No

a. Name/describe the challenges…….

b. What solutions have been put in place?

……

4) Was time allocated to outdoor play enough for holistic development?

( ) Yes ( ) No

Explain your response……..

5) Was safety of the learners adhered to? (Yes) (No) Please describe how safety was adhered to……..

Appendix VI: Study Area Map

Bomet East Contituency Map

Appendix VII: Letter from NACOSTI

Hello Chepngetich,

Your Research License Reference Number 160760 has been screened for processing-.

Best regards NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

This message was sent to chepngeticheva@gmail.com

From: NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Nacosti

Appendix VIII: Research Licence

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **160760**

Date of Issue: **23/August/2021**

RESEARCH LICENSE

This is to Certify that Miss.. Chepngetich Eva of Moi University, has been licensed to conduct research in Bomet on the topic: UTILIZATION OF OUTDOOR PLAY IN ENHANCING HOLISTICDEVELOPMENT OF THE CHILD IN EARLY CHILDHOOD DEVELOPMENT EDUCATION CENTERS IN BOMET EAST SUB-COUNTY, KENYA. for the period ending : 23/August/2022.

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