

The Availability of Children's Outdoor Play Equipment in City ECD Centers for their Holistic Development

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ABSTRACT

Children require a lot of opportunities for creative play and creative thinking. Outdoor play for children has been regarded as not only a crucial part of children's developmental stage but also as important for their holistic development. Despite this wide range of research that has shown positive correlation between play and children's learning, recent trends indicate that children no longer engage in outdoor play. This study thus set to investigate the status of play environments in Early Childhood Development (ECD) centers. The main concern of the study was to establish whether the equipment in ECD outdoor play environments were enough and of different variety to cater for holistic development of children. The study was done in Kisumu city in Kenya. The city has 512 ECD centers with the majority of these being public and run by Parents Teachers Associations (PTAs). Purposive sampling was used to select 20 urban ECD centers in Kisumu city and children who constituted the sample. Data was collected from the head teachers and teachers of the selected respondents by use of interviews, an event observation schedule and observation checklist. The data collected was qualitative and thus was analyzed descriptively. The study results indicated that many ECD centers' environments promoted physical development of children but only to a small extent. The equipment were available enhance gross motor development mostly. These included those that encouraged climbing, sliding, jumping and swinging. The equipment were inadequate in number in most of the schools. According to the results of the study, ECD center outdoor play environments did not accord opportunities for children's cognitive development. Outdoor play environment had only equipment and materials for play. Many ECD centers did not have natural elements for children to learn from. Those that had natural things for children to explore and learn from were not deliberately conserved for children's education but rather because they were found there. Outdoor play environment in ECD centers were not inclusive of the children with physical challenges. The design and organization of the play environment did not factor accessibility for children with physical challenges. Play equipment, materials and elements found in the outdoor play environment were not adapted to suit children with physical challenges. The study recommends that the Ministry of Education should make follow ups in all ECD centers to ascertain the extent to which the special needs policy framework has been implemented.

Key Words: Outdoor play, Play equipment, ECD Centers, Holistic Development

INTRODUCTION

Children require a lot of opportunities for creative play and creative thinking. Creative play is a child's way of life and a vital component of childhood (Clark, 2005). Outdoor play for children has been regarded as not only a crucial part of children's developmental stage but also as important for their holistic development (Weissman & Hendrick, 2003). Play activities have been attested to involve children's total self and also balances their mental, physical, social and emotional status (Samuelsson & Carlsson, 2008). Through play,

children acquire most of the necessary skills for effective living. Play has been shown to instigate social, cognitive, physical and emotional development in any child (Hughes, 2009; Vygotsky, 2004). Additionally, researchers have found a strong link between play and learning for young children, especially in the areas of problem solving, language acquisition, literacy, numeracy and social, physical, and emotional skills (Welsh *et al.*, 2010; Hirsh-Pasek *et al.*, 2008). It has been revealed that these skills are better learned through play than through flashcards or academic drills (Hirsh-Pasek & Golinkoff, 2003). This is because most young children actively explore their environment and the world around them through learning-based play (Wood & Attfield, 2005). According to researcher Dorothy Singer (Singer & Singer, 2009);

“Through make-believe games children can be anyone they wish and go anywhere they want. When they engage in sociodramatic play, they learn how to cope with feelings, how to bring the large, confusing world into a small, manageable size; and how to become socially adept as they share, take turns and cooperate with each other. When children play, they are learning new words, how to problem solve, and how to be flexible”

The evidence of the value of early childhood outdoor play activities is backed by scientific research. Despite this wide range of research that has shown positive correlation between play and children’s learning, recent trends indicate that children no longer engage in outdoor play despite attempts to provide outdoor play environments in learning institutions (Clements, 2004; Rose *et al.*, 2008). The lives of children nowadays are much more structured and supervised, with few opportunities for free outdoor play (Brooks, 2001). A number of causal factors have been hypothesized. Firstly, most parents are afraid for their children's safety when they leave the house alone; many children are no longer free to roam their neighborhoods or even their own yards unless accompanied by adults. Some working families can't supervise their children after school, giving rise to latchkey children who stay indoors or attend supervised after-school activities. Furthermore, children's lives have become structured and scheduled by adults, who hold the mistaken belief that this sport or that lesson will make their children more successful as adults.

It is unfortunate that children can't design their outdoor play environments. Research on children's preferences shows that if children had the design skills to do so, their creations would be completely different from the areas called playgrounds that most adults design for them (Wilson, 2012; Freeman & Tranter, 2011). If children could design their outdoor play spaces, they would be rich developmentally appropriate learning environments where children would want to stay all day.

The National Early Childhood Development Policy Framework for Kenya (G.O.K., 2006) stresses that because of the proven importance of early childhood stages, Kenya would reap substantial benefits with investment in all sorts of childhood development programs for children. In order to make sure that the early year’s curriculum is effective, all elements that are integral part of their effective learning process must be identified and implemented. One such element is the outdoor play. In early childhood development and Education, play has been regarded as a central activity in childhood and therefore it must be incorporated in the teaching and learning of children.

This study thus set to investigate the status of play environments in Early Childhood Development (ECD) centers. The main concern of the study was to establish whether the equipment in ECD outdoor play environments were enough and of different variety to cater for holistic development of children. This study was guided by Bronfenbrenner’s Ecological theory (2000) which has been recently named the Bioecological

model. The model includes four main components: process, person, context and time and the dynamic interactions between them.

RESEARCH METHODOLOGY

The study was done in Kisumu city in Kenya. It is a port city in Kisumu County, Kenya. It has an elevation of 1,131 m, with a population of 409,928 according to 2009 census (Linard *et al.*, 2012). It is the third largest city in Kenya after Nairobi and Mombasa. Kisumu city has 512 ECD centers with the majority of these being public and run by Parents Teachers Associations (PTAs). Kisumu city was selected because it is expanding very rapidly and there was need to establish whether the expansion had any impact on availability of children's environment and play in the ECD centers.

The study used phenomenology design. The research design seeks the individual's perceptions and meanings of a phenomenon or experience (Creswell, 2003). The study population comprised of the heads and the ECD teachers in all the ECD centers in the city. Heads of ECD centers were selected because they plan for the resources to be used by children in the center. On the other hand the teachers were selected because they are involved in the preparation of activities for children and in the organization of outdoor play space.

From the study population, purposive sampling was used to select urban ECD centers in Kisumu city and children who constituted the sample. The selected ECD centers provided information on the nature of play environments in relation to the children's needs. These centers were identified with the help of District Centre for Early Childhood Education (DICECE) Officers. On the other hand, the children who were selected were those who are normally active during outdoor play. The number of ECD centers that formed sample were 20 since it is typical in qualitative research to study a few individuals or cases. This is because the overall ability of a research to provide an in depth picture diminishes with the addition of each individual or site in the view of Creswell (2012).

Data was collected from the selected respondents by use of interviews, an event observation schedule and observation checklist. The data that was collected was mainly qualitative. In this case, head teachers and ECD teachers were interviewed to elicit information pertaining the nature of the outdoor playgrounds in their centers. For observation purposes, a checklist was used to obtain information on the availability of space and equipment, which offers an opportunity for children's holistic physical development in outdoor play.

The data collected was qualitative and thus was analyzed descriptively. Data from the various instruments was described and interpreted from the researcher's perspective and compared with other researchers views which either supported or contradicted the presentation of the data. Data analysis in this study took place simultaneously with data collection. As each individual responded to the interview questions, the responses were analyzed and compared for relevance of the research themes.

RESULTS

Results of Checklist for equipment and materials for physical development

Information derived from the checklist showed that fifteen ECD centers had swings and five did not have. The information contradicts the results derived from the head teachers' interviews which indicated that eighteen of them budgeted for swings. It is therefore evident that the fact that the head teachers may budget for the equipment does not imply that they actually purchase all of them. The swings were inadequate in all

the ECD centres going by the recommended ratio by the Ministry of Education that one equipment should serve ten children. Twelve ECD centres had swings that were sturdy and firmly fixed while three ECD centres had shaky swings. The swings in ten ECD centres were of child height and ten ECD centers had swings that were quite high for children's use. In centers where the swings were high, the teachers and head teachers ignored the place of age and developmental appropriateness in the selection of children's play equipment. The equipment should be child size to avoid a unnecessary difficulty when in use. The ropes that connected the frames and seats were smooth and strong in eleven ECD centres while in it ECD centres the materials utilized to connect the seats and the frames were rough and dirty. Whereas the unappealing handles could discourage the children from using the swings, the health of children is important and teachers should always strive to maintain very high standards of hygiene in all areas in which children operate. Slides were found in nine ECD centres and were missing in the eleven ECD centres. In the nine ECD centres where the slides were available, it is only in one that the slides were adequate. The eight ECD centres had inadequate slides. Sliding is one activity that many young children enjoy and lack of slides deprives them of the happiness and the physical development skills offered by slides. In two of the ECD centres the landing ground around the slides was covered with saw dust. The other seven ECD centres placed the slides on a hard ground that could easily cause some harm on children's bodies. This situation regarding children's safety when using large equipment is confirmed by the fact that one teacher talked of ensuring that equipment does not expose children to any hazards during play.

Six ECD centres provided see-saws for children's outdoor play while fourteen of them did not have. Children enjoy working in pairs and the sensation of moving up and down and ECD centers that lack see-saws deny children the opportunity to have fun. In addition to training children to work with others, see-saws also improve children's balance and co-ordination skills. In twelve ECD centres, the see-saw were adequate compared to four ECD centers where they were not adequate. Three ECD centres had safe see-saws that the sitting area had been enclosed to prevent children from falling. The remaining three ECD centres had unsafe see-saws which had unenclosed sitting areas and the surrounding ground was rough and wet.

Merry go rounds were available in four schools and were unavailable in sixteen centres. In three, ECD centres the merry go rounds were adequate as each could accommodate six children at a go. It is only in one ECD centre that the merry go round was not adequate to serve the number of the children in the centre. In terms of safety, it was observed that the materials used to make the merry go round were quite weak in two ECD centers. Wood had been used instead of metal which is strong and cannot easily break. In the same ECD centres, the rotating points at the centre of merry go round were not securely fixed.

Half of twenty centres had climbing frames. The climbing frames were adequate in two ECD centres and inadequate in eight ECD centres. Climbing frames were sturdy and firmly fixed on the ground in all the centers that had the frames. However, four centers had the frames fixed on an irregular unlevelled ground thus posing danger for the children because they could easily fall and sustain injuries.

There was only one monkey bar in one of the ECD center and also it was the only outdoor large equipment available in the center. The monkey bar was very high for ECD children to reach it. The other nineteen ECD centers did not have a monkey bar in the playground. Likewise, a bouncing castle was available in one of the twenty ECD centres that were under study. Bouncing castles were absent in all the ECD centers except one.

Skipping ropes were found in sixteen centres and missing in four. In the thirteen ECD centres, the ropes were adequate in number since each ECD center had more than 10 skipping ropes which were largely improvised

with a few centres having purchased them. In three centres, the available ropes were less than five. In all the sixteen ECD centres the ropes were light and appropriate for children use but in ten of the sixteen ECD centres, the ropes were quite long and could create difficulty in children to use.

There were tyres in ten centres and none in twelve ECD centres. In five centres the tyres were adequate. In three centres the tyres were light and could be pushed by children but in one center the tyres were too big and heavy to be pushed by the children. Fourteen ECD centres had balls and six did not have. In eleven centres the balls were adequate and in three centres the balls were few in relation to the children in the ECD centre. In seven of the eleven centres the balls were large and did not match the developmental level of the children.

Two ECD centres had hoops and missing in eighteen ECD centres. In the two ECD centres the hoops were small and could fit the children's small bodies. A small bicycle was noted in only one centre. The other nineteen ECD centres did not have any bicycles. The improvised toy cars that had wires to aid in pulling were seen only in two ECD centres. Wooden blocks were available in three centres and not available in seventeen ECD centres. However, the blocks were very few in all the three ECD centers.

Equipment for Gross Motor Development

Gross motor activities enable children to exercise and practice the use of large muscles for example those found in the leg, arm, shoulder back and neck muscles. The equipment that enhance provides opportunity for gross motor development that were observed include swings, slides, monkey bars, see saw merry go rounds, barrels, climbing frames, bicycles and bouncing castles.

Most of the ECD centres had at least one of the equipment. It is important, however to note that the equipment were inadequate in number and therefore not all the children would benefit from the equipment whenever they wanted to. The various equipment serve different purposes and therefore there is need to have a variety of equipment if children have to exercise all parts of their bodies and develop the different large muscles. The swings exercise and offer practice to the arm and back muscles. Slides develop the leg muscles and the back muscles. Bouncing castles can be used to exercise and develop children's gross motor muscles although it was only found in one ECD centre.

Climbing frames help in exercising and developing leg and arm muscles as children use it. Despite the importance of the climbing frames, those that were available could not attract children because they were not firm and steady and could thus comprising children's safety. Teachers should ensure playgrounds are safe for children so as to eliminate preventable injuries to children and increase their motivation for play. Monkey bars are good for stretching the upper arms and exercising the legs as the child moves across the bar with the hands gripping the bar.

Skipping is also a very important activity that assists in developing children's gross motor muscles particularly those in the legs and arms. The majority of ECD centres possessed ropes, an indication that the children had opportunities to skip. The ropes in five of the ECD centres could not be used since they were very long and cannot be easily used by the children. The need to select child size and developmentally appropriate materials was ignored in this case.

The tyres found in eight ECD centres showed that children could push and run at the same time thus exercising their hands, backs and legs. There were hoops in two ECD centres. These suggest that children have the chance to twist their bodies and exercise them body large muscles. A small bicycle was recorded in one ECD centre. The bicycle helps children to exercise their leg and hand muscles.

Balls give children the chance to engage in running, throwing and catching activities which promote the development of and strengthening of leg and hand muscles. It was noted though that some of the balls in the ECD centres were very big and the children could not use them as effectively as required. The one barrel that existed in one of ECD centre promotes development of arm and leg muscles as the children struggle to push and roll it.

Equipment that enhance fine motor development

Fine motor muscles are mainly the small muscles in the fingers and palm. Fine motor development occurs when children perform activities that involve exercise of fingers and the palm. During outdoor play the activities that promote the development of these muscles are picking, throwing and catching, skipping, carrying and building with bricks, grasping among others.

The ropes found in some of the ECD centres provide opportunities for children to exercise the fine motor muscles as they firmly grip the rope during skipping time. Tyres also enable children to push. In the process of pushing, their hands and fingers exerts some force on the tyres and therefore strengthen the fine motor muscles.

In one of other ECD centres, there was a bicycle. A bicycle provides an opportunity for a child to grasp the handle and move the hands as he/she and fingers as he/she controls the bicycle. The gross motor muscles found in the legs are also strengthened as children peddle. The bean bags were available in most centers. This implies that the children had the chance to do throwing and catching activities. There were balls in some of the ECD centres that were child size and are used for throwing and catching activities.

Blocks were available in three ECD centres. Block play develop children's finger muscles during lifting carrying, stacking and building processes. Swinging and moving across the monkey bar entails grasping the vertical and horizontal bars consecutively. The exercises require a firm grip in order to perform the task effectively and safely therefore subjecting the fingers and palms to good exercise.

In view of the fact that the equipment for enhancing was either unavailable or inadequate in most of the ECD centres, it means that the children had limited opportunities to engage in activities that promote development of gross and fine motor muscles.

Inclusion of physically challenged children in outdoor play

In order to gather information on inclusion of physically challenged children in the provision of outdoor play environment, a checklist on the availability of play materials, accessibility, adaptation and safety of materials and play environment was developed.

In seven ECD centres, there were well defined pathways that led to various play areas, while in thirteen centres there were no paths and children used any point to get to the play environment. In the seven ECD centres that had pathways, it is only in one that a wheelchair could be accommodated. The other six ECD centres had pathways that were very narrow. Two of the seven ECD centres had pathways that easily facilitated use of other movement support aids like crutches and walking sticks. In four ECD centres the pathways had stone chips and soil that did not support easy movement of those using crutches and walking sticks.

Two ECD centres had organized the play area in such a way that there were close to each other. Play equipment were within reach of each other and also the open play space was next to the equipment. In this case physically challenged children did not have to strain by covering a long distance to get to wherever they wished to play. However in eighteen ECD centres, the case was different since play equipment were scattered all over the outdoor play environment. In and other forms of play was far from where connections from one play area to another was only distinct in one ECD centre. There were no connecting paths between play areas in eighteen ECD centres.

In analyzing the adaptability of play materials and equipment, it was found that equipment in nine ECD was of low height and could easily be reached and used by children with physical challenges. In eleven ECD centres the equipment were high and had no provision for additional support to enable children with physical challenges to use the equipment. None of the ECD centres had equipment that could be adjusted to suit the needs of children with physical challenges. Likewise there were no ramps in any part of the centre in all the twenty ECD centres in the study.

Three out of the twenty ECD centers had movable containers which children could use for water and sand play. Seventeen ECD centres did not have any containers. This means that the children with physical challenges either had to struggle to reach the water and sand area or miss out on water and sand play altogether. Movable sand trays were unavailable in all the ECD. A few potted plants that were located outside the classes were available in three ECD centres. The play materials in the ECD centres were assessed to find out whether they were light enough to be manipulated by children with physical challenges. Light balls and bean bags were available in three centers in comparison to seventeen which had big and heavy balls, heavy blocks and large improvised toy cars and balls.

The safety of children with physical challenges was derived from the results. From the checklist it was indicated that only two ECD centres had smooth and properly leveled ground while eighteen that had rough and irregular play environment. The grass in the two centers was mowed and had no visible depressions. The eighteen ECD centers' play environment had stones, depressions, holes, sticks and discarded plastic tins and paper bags. In the seven ECD centres that had defined pathways, three had pathways that were clear. There were no obstacles that could hinder movement of children with physical challenges.

On the other hand, four of ECD centres had pathways that did not facilitate easy movement for children with physical challenges and who may use wheelchairs, crutches or walking sticks. The pathways had stones, sticks plastic papers, leaves, plants, mud and weeds.

DISCUSSION

The fundamental principle behind the argument in this study is that the outdoor play environment influences the learning and development of the child. The outdoor environment has to provide affordances that will compel the child to move. In so doing this contributes significantly not only to physical development but also to development in other dimensions namely socially, emotionally and cognitively.

School ground setting that provides opportunities for movement, investigation, concentration and social interaction within the educational setting contributes to children's understanding of their place within the environment. It is therefore good practice for teachers to plan for children's outdoor play both in terms of provision of materials and equipment and diversifying the contents in the environment to capture children's holistic necessary. All teachers said that they planned for outdoor play .This is a good indication that children's play did not just happen. Most of the teachers indicated that they planned for physical play by

providing space and equipment. These tallies with observations made by Brotherson (2005) those teachers' beliefs were reflected on the way the outdoor environment was set up, with most opportunities for children being related to physical development.

Although many teachers Planned for children's physical play activities, they differed in the in the types of equipment they availed, with the majority stating that climbing frames, swings and slides were the only equipment in their ECD centers. Many teachers explained that they included safety measures in their plan for outdoor play. The seriousness attached to safety of children during outdoor play was evident in the results from the checklist on opportunities for physical development which showed the state of most of the equipment and playgrounds in most of the ECD centers. The large equipment were firmly fixed and playgrounds were free from objects that could hurt children. Most head teachers adhered to the requirements of Early Childhood Development Service and Standards Guidelines for Kenya (G.O.K, 2006) that the outdoor play area should be free of sharp objects, harmful plants and discarded materials. These safety measures taken in most of ECD centers also concur with recommendations of the United States Consumer Product Safety Commission (CPSC) which recommended that in designing outdoor spaces for children, safety and liability issues should be of paramount importance. Children learn and develop by experimentation and by challenging themselves through play and so safety must be guaranteed for this exploration to takes place. Clements (2004) however, has a contrary view and argues that parents, increasingly concerned about security of their children are making carefully constructed outdoor playgrounds that limit challenge in the name of safety. Walker *et al.* (2007) concurs with this view and states that there is a risk that there is no risk for children's play.

Climbing frames, swings, slides and tyres were common in most ECD centers while monkey bars, bouncing castles, see- saws, hoops and ladders were available in a few centers. These equipment encouraged, climbing, swinging, sliding, bouncing, pushing rocking, twisting, rocking and balancing. The event schedule also provided information to the effect that during free play the activities that children engaged in were mostly those that involved physical gross motor skills, that is, swinging, climbing, sliding, running and pushing in a large number of ECD centers. This scenario reveals that most teachers and head teachers seem to believe that outdoor play is about physical activities and exercise. Malone, (2003) notes that the desire to run, jump, crawl, climb and swing is the natural way through which children's bodies develop. These activities lead to improvement in coordination, bone and muscle growth, strength, agility and are essential to a healthy childhood and later life.

Play materials were available in most ECD centers though they were few and not varied. Bean bags, balls, ropes and blocks were common in most ECD centers. This means that materials had to be shared between many children. Inadequate play materials deny children sufficient time to enjoy and play effectively .These materials promote the development of fine motor muscles as children grasp, throw and catch, skip and carry materials such as bricks. By observing the children play, it was clear that activities that encouraged fine motor development were very few yet fine motor skills are essential for academic work such as writing and drawing.

Water which has been regarded as a very useful component in children's outdoor play was available in very few ECD centres and missing in a majority of centres. Results from the analysis of teachers and head teachers' interviews revealed that although a few teachers were aware of importance of water play activities, it was not reflected by the results of the checklist for cognitive development. There were only two ECD centres that had water. In the children's event schedule, only two children were involved in filling, emptying

and floating pods in a pool of water which had settled on the ground after a down pour indicating the need for clean water for children's play. Water provides an excellent learning environment for children. As children manipulate water play materials, they begin to understand why and how many things happen. They can experiment with concepts such as more/less, same/different, many/few, empty/full, before/after, greater than/less than and counting (Clark, 2005).

Analysis of results from the checklist for opportunities for cognitive development indicates that there were soil in all ECD centres but in some centers, the soil was not adequate for children to learn from it. Soils should be plenty within the ECD to allow children to learn how soil supports plants, the animals that can be found in the soil and that soil can be mixed with water to make models. Teachers should also ensure that soils are available in their settings for children to acquire knowledge through contact with the soil. Vygotsky (2004) supports learning in the natural environment and argues that children's affinity for the natural environment is connected to the child's development and his or her way of knowing (Clements, 2004). The wonder's of nature- children's way of knowing, *Early Childhood News*, March/April. Results showed that blocks were unavailable in all ECD centres except three. This points to the fact that teachers and ECD teachers in most ECD centers deny children the cognitive development opportunities provided by blocks. Ness and Feranga (2007) emphasize the importance of block play by asserting that they are frequently mentioned as contributing to the development of special skills as children pile blocks on top of one another. As their play become more sophisticated, children pay attention to the colours, shapes and sizes of blocks. Ferrara *et al.* (2011) supports this view and suggests that blocks allow children to play directly with spatial concepts, which could assist their growing representations of spatial relationships between objects in the physical world. Teachers should therefore encourage block play among children by ensuring that blocks are available, varied and adequate in number.

Results from the checklist on opportunities for children's social development revealed that many ECD centers had equipment and materials that children shared during free play. This situation agrees with Cazden & Beck (2003) view that the experiences of play in a group provide children with opportunities to learn social skills such as sharing, taking turns and cooperation. These equipment, however were few and not varied in most of the ECD centers. Sharing of materials and equipment by children during play is good for their social development when the materials are adequate. In most centers, however, these equipment were few and can breed unhealthy competition, selfishness and jealousy in children when there is a scramble for them, a fact that was vividly visible during the observation of children during their free play. Children waited for a period of time for their turn and even went to the extent of forcing those who were using the equipment to cut short their play.

Play props and materials for fantasy play were unavailable in all the ECD centers except one. This was also evident in children's play event schedule because in all the twenty centers, only children in two ECD centers engaged in fantasy play by pretending to drive a car using a stick and floating seed pods to represent a boat. It is therefore clear that the children cannot participate in pretend play without the right props in the play environment. The absence of props for fantasy play illustrates that teachers do not prepare the play environment to encourage children's spontaneous involvement in fantasy play. Bergen (2002) argues that as children develop skill in pretend play, they begin to converse on many levels at once becoming actors, directors, narrators and audience and therefore improving their social interaction abilities. Fantasy play is very significant in the social and cognitive development of children. The Ministry of Education (MOE) has to intervene to ensure the whole concept of play is a means of learning and development of children is well understood and implemented by early years educators. According to Brotherson (2005) research shows that

children who are active in pretend play are usually joyful and cooperative and have larger vocabularies than children who are less involved in pretend play.

Results obtained from the checklist on the inclusion of physically challenged children in the outdoor play revealed that most ECD centers had no designated pathways leading to play areas, thus not supporting movement for children with physical challenges. The few pathways that existed in a few ECD centers were narrow and could pose challenges to any children who may be required to use a wheelchair. In addition to this, the paths had stone chips and stones that hindered movement.

CONCLUSION

The study results indicated that many ECD centers' environments promoted physical development of children but only to a small extent. The equipment were available enhance gross motor development mostly. These included those that encouraged climbing, sliding, jumping and swinging. The equipment were inadequate in number in most of the schools. According to the results of the study, ECD center outdoor play environments did not accord opportunities for children's cognitive development. Outdoor play environment had only equipment and materials for play. Many ECD centers did not have natural elements for children to learn from. Those that had natural things for children to explore and learn from were not deliberately conserved for children's education but rather because they were found there. Outdoor play environment in ECD centers were not inclusive of the children with physical challenges. The design and organization of the play environment did not factor accessibility for children with physical challenges. Play equipment, materials and elements found in the outdoor play environment were not adapted to suit children with physical challenges.

RECOMMENDATIONS

- i) Teachers and head teachers should plan for space, equipment and materials and design outdoor environment to enable children engage fully in play.
- ii) Children's physical development in outdoor play should be enhanced by varying equipment and materials to encourage gross and fine motor development.
- iii) Outdoor play equipment should be assorted, designed and organized to facilitate children's optimum cognitive development.
- iv) The Ministry of Education should make follow ups in all ECD centers to ascertain the extent to which the special needs policy framework has been implemented.

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