UNIVERSITY OF EDUCATION, WINNEBA

INFLUENCE OF LEARNING CORNERS ON PRESCHOOLERS' LEARNING OUTCOME IN EARLY CHILDHOOD EDUCATION IN THE GA-EAST MUNICIPALITY

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DECLARATION

Student Declaration

I **Susana Hammond Atisu**, declare that this thesis with the exception of quotations and references contained in published works which have been identified and dully acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole for another degree elsewhere.

SIGNATURE: …….

DATE:……

Supervisor's Declaration

I hereby declare that the preparations and presentations of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: **Dr. Wiabo Baffoe**

SIGNATURE: …….……..……..

DATE: …….……..……..

DEDICATION

I dedicate this work first to the Lord Almighty for His Grace and Strength given me. I also dedicate this work to my family, Rev. Michael Atisu and my children Elsie, Davies and Lesley for their advice and support throughout my education.

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This work would not have come into existence without the support of others. Therefore, I wish to acknowledge a few people who helped in the realization of this research work.

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ABSTRACT

The purpose of the study was to examine the effect of learning corners on the preschoolers' learning outcomes in early childhood education in the Ga-East Municipality. This study adopted a mixed-method approach and the convergent mixed-method design. The multistage sampling techniques were used to select 35 facilitators for the study. Closed-ended questionnaires and structured interview guide were used to collect data from the participants for the study which were analyzed using descriptive statistics like frequency count and percentages for the quantitative analysis and the qualitative phase was analyzed thematically. The findings of the study revealed that, though all the participants who responded to the study stated that, they use learning corners, not all learning corners were utilized in their schools. However, the dominant learning corner used by facilitators was make-belief / role play corner as it is easily arranged and far less expensive in setting up than others like the natural corner which involves purchasing natural objects for building a corner and may sometimes involve interfering with the natural environment with plants and others. It was further revealed that learning corners have immense influence on the development of the children such as children learning to explore, investigate and experiment, learning the benefits of nature, beginning to think and learn about things around them, bringing out nurturing qualities in children, developing social skills such as children collaborate with others among others. Finally, the study revealed that there were not adequate materials in some schools to be used to set up the learning corners. It was concluded that facilitators and inadequate materials are some of the key factors that influence learning corner utilization. Based on the findings of the study, it was recommended that the importance of learning corners in preschools has to be highlighted for the facilitator. Also, The Ministry of Education through GES should offer more service training to the facilitators about learning corners in preschools.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

Internationally, the number of children attending non-parental childcare and education services before primary school entry has been increasing since the 1960s, and in developed countries, some preschool education or care is the norm for most groups of children. The terms day care, child care and Early Childhood Education and Care have all been used to refer to various forms of non-parental child care and early education occurring before school.

The definition of Early Childhood (also known as Early Childhood Learning and Early Education) varies in scope and seem to be closely linked to geographical locations. While the main thrust of some definitions is based on age bracket, some consider the environment within which the education is delivered, others combine both. Early Childhood Education has been considered to be a pre-school, semi-formal education outside the home (Oyewumi, Alhassan and Ofoha, 2010). It includes the crèche, the nursery and kindergarten (Olaleye, Dalamide & Omotayo, 2009).

Recent years has seen a marked increase in both the demand for and the supply of early childhood education services in Ghana. An exploratory study conducted by Innovations for Poverty Action-Ghana in 2013 in the Ashaiman neighbourhood revealed two key findings: (a) the quality of classroom instruction in preschools was generally low and developmentally inappropriate, and (b) parents' subjective assessment of preschool quality focused on developmentally inappropriate instruction and classroom materials and infrastructure.

Over the last decades, increasing interest has been prompted by a large body of studies focusing on the long-term effects of early childhood education on life outcomes (Barnett, 1995, 1998; Campbell F.A., Ramey C.T., Pungello E.P., Sparling J.J. & Miller-Johnson S., 2002; Belsky et al., 2007; Hurry and Sylva, 2007; Cascio, 2009; Ruhm and Waldfogel, 2012; Cort´azar, 2015; Lehrl et al., 2016; Bakken et al., 2017). This literature promotes the importance of early childhood education in several domains of development including an educational achievement (Reynolds et al., 2004; Pence et al., 2004; Corta´zar, 2015), learning skills (Hyde and Kabiru, 2006; Conger, L. Kruse, U. & Roehring, G., 2019), employment performance (Myers, 1992; Schweinhart et al., 1993; Wilson, 1995), physical and mental health outcomes (Fergusson and Horwood, 1998; Waldfogel, 2006; Duncan et al., 2013) and drug abuse (Campbell et al., 2002) etc.

In addition to these long-term effects, growing empirical studies in high-income and middle-income countries found evidence that early childhood education increases children's early development (Haskins, 1989; Currie, 2001; Ramey and Ramey, 2004; Conger et al., 2019). In a recent paper in China, Li, H., Yang, W. & Chen, J.J. (2016) find that early childhood education quality, teaching and interactions, were positively associated with children language, early mathematics and social development. Using a randomized controlled trial in Switzerland, Schaub S., Ramseier E., Neuhauser A., Burkhardt S.C.A., Lanfranchi A., (2019) also found that early education, even by parents as teachers, improves children's adaptive behaviour, developmental status, and language skills at the age of 3 years. More recently, Rao, C., Paul, K., Johnston, S. S., & Kidder, J. E. (2019) found that children's participation in early childhood education is positively associated with cognitive, language, and socio-emotional

development in Mongolia, Cambodia and China. In the United States, Conger et al. (2019) found that children who participate in the pre-K program have higher rates of promotion to the first grade and a higher rate of school stability between kindergarten and first grade.

The early years of a child's development are very important not only because they lay the basis for human development but also because experiences children are exposed to during that period have a lasting influence on childhood. Successful early childhood care and stimulation programmes lay the foundation for creativity, imagination, self-reliance and survival of the child (Asenso-Boakye, 2005). A person's future potential is better exploited when proper attention, care and support are accorded as early as possible in one's life.

Empirical research findings indicate that the nature of care given to children in the first eight years is directly linked to an individual's health and productivity during childhood and to the socio-economic development of society as a whole. The success of children in school to a large extent determines their success as adults, determining whether they can go to college, what professions they enter, and how much they are paid (Asenso-Boakye, 2005).

The prime goal of school education is to foster the children to be innovative, creative and enterprising to join the world of work; to learn for life and self-fulfilment, and to act as socially critical citizens in a democratic society. The education sector is responsible to provide a nationwide system of school education to the expectations of the country, related to Gross National Happiness (GNH), relevant to the needs and aspirations of the students, efficient in the use of available resources, and effective in

the achievement of high quality and sustainable educational programmes. Expenditure on education in Bhutan is mostly met by public funding.

In Ghana and Africa as a whole, Early Childhood Education was previously taken as the responsibility of parents and families and not the state (The White Paper, 1995: 7). This makes it difficult for one to find tangible documents and evidence on how Early Childhood Education has evolved over the years. Elements of Early Childhood Education interventions in Ghana can, however, be traced to as early as the 1950s. The focus at that time was largely on the provision of care to young children before starting class one.

However, young children learn best by experimenting with their environment through hands-on activities and play, which is why learning corners are such a vital part of the preschool classroom. Using learning corners to give children the hands-on experiences and play opportunities they need is important, but there are varieties of factors that influence which corners would work best for your space, how you should set them up, and the materials you should include in each. Research indicates that a well-organized classroom helps children learning and motivates them to interact positively with each other which in turn enhance children's learning outcome (Olds, 2001: pp. 34-36).

Learning is an act of acquiring new or modified and reinforced, existing knowledge/ concepts, behaviours, skills, values and/or preferences. And it may involve synthesizing different types of information that can be positively utilized by the learner. (Leena, 2017) The ability to learn is observed in humans, animals and some

machines. Learning is not a compulsory act but it is contextual. It does not happen all at once, but builds upon and can be shaped depending on the know-how. Learning corners' general aim is to ensure learning in a suitable environment that allows learners to benefit from any kind of learning resources (Landvoigt, Muehler, and Pfeiffer, 2007; Spiess et al., 2003).

Research in early childhood development has shown that young children learn best in an active hands-on environment. Availability of these learning corners has a positive influence on the development of children's language, their personal, emotional and social skills as they participate in the activities designed in the environments. Children are given choices that help them become better decision-makers. The materials in the learning corners are organized to help children engage in meaningful learning. Examples are listening corner, block corner, writing corner, and puppet areas, dramatic play, small motor play (puzzles, Legos, small manipulative), cooking, water/sand play, art, music, science, library corners, storytelling activities etc. (Swiniarski, Breitborde, & Murphy, 1999).

However, Learning Corners is a special learning activity for pre-schoolers which strongly promotes independence and Love of Learning. It involves all the children playing and working on various tasks in the same classroom, under the supervision of 3 or more teachers. Learning Corners is based on the child-centred approach to teaching young children – it gives children the freedom to choose what to do and promotes socialization in learning. It also draws from the Montessori tradition of letting children from a broad age range learn together, working with tasks that build

concentration and encourage independent and investigative learning styles (Essa, 1999; Wortham, 2000).

The early childhood classroom is set up to be an environment that supports learning. Furniture, equipment and materials are carefully chosen and arranged to appeal to children and promote the curriculum's content goals. The learning environment encourages a mix of independence and cooperative play and provided materials that reflect the diversity of children's family lives. Interest Areas or "Learning Corners" are specific places in a preschool room's physical environment where specific activities are arranged for the children to explore (Nakpodia, 2011).

According to Bredekamp (1987), preschool classrooms are usually organized around interest areas or learning corners. These defined areas allow children to play and explore materials with the guidance of the teacher either individually or in small groups. Low dividers are often used to separate the corners, but children move freely among them. Skills that lead to reading and writing and mathematics are not confined to specific corners but rather reinforced in different ways throughout all the corners via communication. The environment of the classroom communicates to pre-schoolers what is expected of them. Independence and the joy of learning are what should be conveyed. In the early childhood classroom, the use of learning corners is a key component to ensuring the success of pre-schoolers. Three basic settings are needed when planning where to set up corners: a place for the whole class to work together, a place for pre-schoolers to work independently, and a place for teacher-directed small group work. It is helpful to use a map of the classroom with scale cut-outs of furniture and equipment to try different arrangements.

According to Duba and Orodho (2014), most families living in arid and semi-arid areas in the rural areas in Kenya face several challenges with regards to access to schooling and preschool education; especially for the girl child is worst hit. In a classroom where there is a teacher and an assistant, both are responsible for supporting children's play and work in the learning corner while also monitoring children and encouraging supportive friendship behaviours. When children are in the learning corners, the teachers' role is to encourage them and engage them in conversation and by asking open-ended questions (questions that require more than just yes or no answers), extending their learning by introducing new ideas and materials and also observe their skills, development and interests. However, this current study seeks to collect data from preschool facilitators in the Ga-East Municipality on how learning corners used in teaching children in their various schools affect the pre-schoolers' learning outcomes and to also explore the different problems facilitators may face in using the corners.

1.1 Statement of the Problem

The Republic of Ghana is one of the first African countries to ratify the international convention on children's rights. Following the Millennium Development Goals, Ghana adopted in 2004, the National Early Childhood Care and Development Policy (ECCD) which aims to promote children's development and protection through financing kindergarten facilities accessible to vulnerable children as well. This program aims to provide a quality early childhood education to all children to reduce inequalities in development outcomes among children (Wolf et al., 2019). In 2007, Ghana officially introduced a pre-primary education of two years for children between 3 and 4 years old.

There has been a substantial increase in pre-primary school attendance. Data from Education Management Information System (2014-2015) indicates an increase of 2.1% in public pre-primary schools while it increased by 8.7% for private pre-primary schools in the same period. Before the new Millennium, most of the early childhood education system was run by the private sector and these schools were few, very expensive and located in cities and towns (Send Africa, 2018). Furthermore, the government has increased the budget allocated to the early education system.

According to the Ministry of Education report in 2016, the budget allocated to the early education system was from 435,502,334 GHS (around 7.6% of the education budget) in 2012 to 501,912,110 GHS (7.6% of the education budget) in 2014. However, despite the government efforts, a recent study by McCoy D.C., Peet E.D., Ezzati M., Danaei G., Black M.M., Sudfeld C.R., et al. (2016) found that around 32.6% of Ghanaian children (3- and 4-year-old) still do not meet the school readiness indicator threshold. Early Childhood Education is very important as far as the government's quest to provide quality education and care, as free and compulsory primary Education for children in this country.

Developmentally appropriate practices were developed by the National Association for the Education of Young Children (NAEYC) (Walter & Lippard, 2017). This practice was developed to help reduce learning gaps, increase learning achievement, and to improve education for the early childhood classroom by looking at teacher knowledge and decision-making as an important part of making school effective (The National Association for the Education of Young Children, 2009). A developmentally

appropriate program gives support for the child's social, emotional, and cognitive development (Pyle & Deluca, 2013).

However, it has been estimated that globally, 43 per cent of children less than five years old are not achieving their full potential. This could be because they do not receive the five elements of 'nurturing care' for children. Due to this, their cognitive, language and psycho-social skills remain underdeveloped, which keeps them from performing well in primary school and eventually dropping out. Despite the progress that Ghana has made in improving access to school, several children do not have the required literacy and numeracy skills. A large number of pupils struggle to meet the proficiency cut-off point for English and Mathematics between grades four and six.

Moreover, since the commencement of the implementation of the National Policy on Education Ghana which seeks to ensure an optimal and qualitative EARLY CHILDHOOD EDUCATION, streams of concerns have been raised by stakeholders in respect of the quality of education in Early Childhood Development and Education (ECDE) and its actual implementation. Despite all measures put in place by the Ghanaian Government, there are still lapses in the provision of quality pre-school education in Ghana. Another challenge affecting Early Childhood Education is the huge capital involvement in establishing learning corners in Ghana's environment which is pricier.

Considering the curiosity and inquisitive character of the children in preschool years, regular education program such as Montessori, Waldorf, Reggio Emilia and others must be carried out for the child to accommodate the programmed learning period afterwards. In this program, in addition to tale, game, music and art activities, various

information concerning the knowledge of self, near surroundings and the outer world should be taught at the child's level of understanding. Consequently, the children can gain the knowledge, skills and manners that preschools require and they can be more successful in primary schools. The programmed learning process started from three years old constitutes the first step of systematic education. It is intended for the child to get prepared for primary education with a program carried out in a free environment prepared per the child's developmental properties.

Learning corner is also a part of this program because the child would want to get answers to the concepts and observations as he/she interplays with the environment. From this moment on, in his/her mind cognitive and affective structuring regarding Science, Mathematics, the real world and nature will begin to form and continue during his/her life. However, the important thing about preschool is to improve the child's research, analysis and observation skills to form a good scientific basis and learn scientific thinking. The teacher's mission is not to teach knowledge but to encourage them to research and provide a proper environment accordingly.

That notwithstanding the above, the report from the Ministry of Education (2006) holds the rationale that, early childhood curriculum has been enacted to meet the developmental needs of children in the formative years and also to help children come out with tremendous potential and experiences covering a various area of human experiences. However, it appears that the learning corner in the curriculum is not given the necessary recognition by pre-school facilitators and less emphasis by GES.

According to the National Association for the Education of Young Children (2005), there are standards for serving good quality education. Therefore, there is a need for teachers to meet those standards especially when their role is related to curriculum implementation. However, knowledge in teaching with learning corners is more challenging and heavier as greater responsibility creates on the shoulders of some early childhood educators. It appears that despite what is planned and documented in the early childhood curriculum on learning corners, practices of facilitators and events going on in the classroom settings are not being realized. Moreover, since the executing of some learning corners may be expensive in the purchasing of materials and equipment to use in the setups, it becomes challenging for many facilitators. The researcher has also observed that play through learning corners has an immense impact on some children in other preschools in the Ga-East Municipality. Also, whiles some schools use learning corners in teaching children in their classrooms, the intended effects on them are not visible.

In this sense, as the researcher identifies efforts, the Government with the Ministry of Education is putting in place to make early childhood education in Ghana, a better one for children, it was further noticed that various studies have been conducted on Early Childhood Education and its impact on children's educational outcome, classroom environment and its effect on pre-schoolers academic performance and more around such field but there are few studies on the impact of several teaching and learning activities in the preschool classroom implemented from the early childhood curriculum on the development of the children, hence, this leaves a gap from a Ghanaian perspective to be filled. However, the researcher deemed it far necessary to examine the impact of learning corners on the learning outcome of pre-schoolers as

this is a challenging teaching aspect for facilitators in many preschools since it was introduced.

Moreover, examining challenges pre-school facilitators face during the implementation of the curriculum in using learning corners in their various schools is a necessity because once the challenges are detected precisely, it is easier to deal with them by finding ways of managing them. In this light, it is very imperative to conduct an empirical study to ascertain the challenges that pre-school teachers face in the utilization of learning corners in their preschool classrooms.

It is therefore against this background that this study aimed to examine preschool facilitators' opinions about Learning Corners, their influence on pre-schoolers learning outcomes and the challenges faced in executing such a programme in the Ga-East Municipality.

1.2 Purpose of the Study

The rationale behind this study was to examine the effect of learning corners on the pre-schoolers learning outcomes in early childhood education in the Ga-East Municipality.

1.3 Objectives of the Study

The objectives of the study were;

1. To explore the types of learning corners used by facilitators in teaching pre-schoolers in the Ga-East Municipality.
2. Find out the extent to which learning corners influence the development of a pre-schooler in the Ga-East Municipality.

3. Discover challenges faced by facilitators in structuring learning corners in their classrooms to improve the learning outcomes of pre-schoolers in the Ga-East Municipality.

1.4 Research Questions

The following questions guided the study

1. What types of learning corners are used by facilitators in teaching pre-schoolers in the Ga-East Municipality?
2. How do learning corners influence the learning outcomes of pre-schoolers in the Ga-East Municipality?
3. What are the challenges faced by facilitators in structuring learning corners to improve learning outcomes in the Ga-East Municipality?

1.5 Significance of the Study

The findings of the study would enlighten caregivers, school owners and the government about the factors affecting learning corners and preschoolers' learning outcomes and development in early childhood education. This study would also serve as a guide to caregivers, instructors and facilitators on how to strategically enhance the use of learning corners to aid in better teaching and learning processes of preschool children. The findings of the study would enable pre-nursery school proprietors to be able to plan systematically for the provision of a good classroom that enhances children's academic performance. It would further contribute to the existing body of knowledge and help other researchers when working on related issues especially, from the Ghanaian perspective.

1.6 Delimitation

The study covered only facilitators who are currently working in pre-nursery schools located within the Ga-East Municipality. Also, the aspect of learning corners on the preschoolers' learning outcome and challenges faced by facilitators in using them in pre-schools were covered.

1.7 Definition of terms

Caregiver: A caregiver is an unpaid or paid person who helps to look after the preschool children.

Facilitator: A facilitator is a person who teaches a subject or skill and gives care to children in a preschool: someone who instructs preschool children and assess them in their classroom activities.

Preschool: A preschool is an educational establishment or learning space offering early childhood education to children. Usually between the ages of three and five, before the commencement of compulsory education at primary school.

Early Childhood Education: Early childhood education is a branch of education theory that relates to the teaching of young children (formally and informally) up until the age of about eight.

Classroom: A classroom is a learning space, a room in which classes are held.

Education: This is the process of facilitating learning or the acquisition of knowledge, skills, values, beliefs and habits.

Learning corners: Learning corners is a special learning activity for nursery children which strongly promotes independence and a love of learning.

Learning outcome: Leaning outcome is the measure of how individuals learn to think and reason for themselves concerning the world around them.

1.8 Organization of the Study

The study is in five chapters. The first chapter covers the background of the research, problem statement, and the purpose of the study, the objectives of the study, the research questions, the significance of the study, delimitations of the study and the operational definition of terms. Literature related to the study was reviewed in chapter two. The review involves a theoretical framework and review of previous studies. The third chapter covers the design, methodology and procedures employed for the study. The sample and the instrumentation have also been captured in the third chapter. The chapter also explains the procedures adopted for gathering and analyzing the data. The fourth chapter contains the raw data presentation, analysis and discussions of findings of the research and the final chapter discuss a summary of the key findings of the study, recommendations as well as suggestions for future research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Overview

This chapter presents a review of relevant literature on the effect of learning corners on preschooler's outcomes. It provides a context to the subject of this research and establishes a rationale for the study and the guide for the methodology employed. A variety of sources and databases were used for the literature collection. The following constitute the sub-topics of the literature review:

1. Theoretical Review
2. The Preschool Child
3. Learning Environments
4. Learning Corners
5. Impact of Learning Corners
6. Benefits of Learning Corners
7. Teachers Role in Learning Corners
8. Developmentally Appropriate Practice
9. Development Areas Impacted by Play in Learning Corners
10. Developmental Benefits and Play
11. Preparing the Physical Space for Play
12. Materials and Equipment for the Early Childhood Classroom

2.1 Theoretical framework

For this study, I used the theoretical frameworks from Piaget (1951) and Vygotsky (1978). According to Jean Piaget's theory of cognitive development, learning occurs

in four phases for children. His theory focuses on understanding the nature of intelligence as well as how children gain information. The four phases identified by Piaget are the Sensorimotor stage (from birth to age 2), Preoperational stage (from age 2 to age 7), Concrete operational stage (from age 7 to age 11), and Formal operational stage (Ages 12 and up). Piaget thought that children actively participate in the learning process, acting somewhat like young scientists as they conduct experiments, record observations, and gain knowledge of the outside world. Children constantly add new knowledge, expand upon existing knowledge, and modify long-held beliefs to account for new information as they interact with the world around them.

Lev Vygotsky stated that the development of higher-order functions is the responsibility of parents, caregivers, peers, and the culture at large. Vygotsky asserts that social interaction is the basis of learning. The knowledge is then processed on a personal level once this has happened. Vygotsky argued that children's minds are born with fundamental biological limitations. However, each culture offers "tools of intellectual adaptation," which enable kids to apply their skills in a way that is suited to the society in which they live.

I chose these theories because of their immense contribution to child development and the field of education. Piaget' theory proposed many relevant educational strategies, such as discovery learning with an emphasis on activity and play which could be applied in early childhood education. Vygotsky, on the other hand demonstrated the importance of social interactions and merged a co-constructed knowledge base to the theory of cognitive development. Both theories are necessary in identifying just how much learning corners can influence learning outcome of pre-schoolers.

Piaget's theoretical cognitive framework originally came from the observations he made of his children playing and learning. He thought in terms of an individual's learning by building concepts in memory to keep information.

According to Powell and Kalina (2009):

> Piaget's main focus of constructivism has to do with the individual and how the individual constructs knowledge. Cognitive constructivism came directly from Piagets's work. Piaget's theory of cognitive development proposes that humans cannot be given information that they immediately understand and use; instead, humans must construct their knowledge… Piaget's (1953) four states are the Sensorimotor stage, which a child goes through from ages zero to two; preoperational stage two to seven years old; concrete operational state-seven to eleven years old; and formal operational stage eleven years old to adulthood. (p.242)

In the first stage, children learn about their environment. In the second stage, children are egocentric where they feel as though the world revolves around them. In the third stage, children begin to think more logically, and in the final stage, children think abstractly. As children move through Piaget's stages of development, they initially explore their world to construct knowledge through the use of their senses, by manipulating objects in their environment, and by bringing meaning to complex concepts in a rich environment under the supervision of the teacher.

Vygotsky's theoretical framework centres on a child's social interactions. According to Powell and Kalina (2009), Vygotsky believed that social interactions are important during the stages of individual development and that social interactions are the pathway for the development of a child's thinking. Vygotsky's theory of learning and teaching is based on a child's relationship formed through social experiences. Powell and Kalina (2009) referenced that:

> Social constructivism is a highly effective method of teaching that all students can benefit from since collaboration and social interaction are incorporated. This type of constructivism was formed after Piaget described his theories involving individual or cognitive constructivism. Vygotsky believed in social interaction [which is an integral part of learning. Social constructivism is based on the social interaction of a child in the classroom along with [other peers or adults] understanding his theories or building a classroom where interaction is prominent helps develop effective classrooms (p.243).

Vygotsky's (1978) concept of the zone of proximal development is also a major contribution to the body of education literature. According to Bartlett (2011), Vygotsky stressed that "in the right environment, with the right guidance, children can perform successfully" (p.28). For example, when a child is trying to count how many trains he has to share with his friends, another more knowledgeable peer or who may be watching might notice that this child counted wrong. When noticing this, the more knowledgeable other could guide him in trying again by holding his finger and helping him count or redirect him to double-check. Therefore, having another person to work alongside the learner could help assist the learning process.

According to Powell and Kalina 2009, the term constructivism can bring an about confused reaction from teachers because of their unfamiliarity with the term. When teachers are asked to use strategies in their classroom, they may not know what to do. For teachers to be successful in using constructivism, they need to know about children's prior knowledge, so that when new information is taught, children can master new knowledge. Teachers can teach constructively if they can understand the theory of constructivism.

Powell and Kalina (2009) believe that a teacher should use both cognitive and social constructivism because both methods can positively impact the children. Both cognitive and social constructivism will help children construct ideas from experiences that they partake in, which will in the end help to build meaningful knowledge.

2.2 The Preschool Child

A preschool child is defined as being between the ages of three and five, a time when children start to become verbal (Watkins & Durant, 1992). They begin to work together and interact with other children. They develop their verbal skills rapidly as they become more interested in books and writing (Isbell & Exelby, 2001). Preschoolers become brave and are easily entertained, they are friendly to their peers; enjoy people and new experiences (Watkins & Durant, 1992). Preschool children begin the stage Piaget labelled "preoperational", a time when they can grasp small and simple concepts. This stage has three main characteristics. The first is centration, where the child attributes only one meaning to things. For example, a father is only a father but not the son of someone else. The second characteristic is egocentrism, which refers to the child's belief that the world revolves around him alone. The third and final characteristic is animism, which refers to children believing all things are capable of human characteristics. Children at this age can spend a day away from home and enjoy being cooperative, especially when they receive individual attention due to their good behaviour. However, they have difficulty sharing when they are tired or tense. In addition, they might cry in the middle of playing with other children because they feel frustrated (Watkins & Durant, 1992).

Preschoolers are very proud of building things out of raw materials such as clay, wood, and paint (Olds, 2001). They have a good sense of self-esteem and often feel smart and capable. These feelings, if properly nurtured, can last forever. They have a hard time grasping distance and the proper use of verbs. At this age, they use the verbs according to the way they think; this includes adding the termination -s- or -ed to a verb (Watkins & Durant, 1992). Although most behaviour problems in the preschool years are a part of typical development, instructors should avoid giving confusing or pointless rules. Sleepiness, hunger, or excessive motivation can be common explanations of why children misbehave, cry, not share, or are not willing to interact with others (Watkins & Durant).

2.3 Learning Environments

Decisions about how the classroom or physical environment is arranged will depend on the philosophy and goals of the instructor. Depending on the instructor's objectives, the room arrangements and placement of instructional materials will differ; however, certain essential features will need to be in every classroom (Hand & Nourot, 1999). For example, one instructor believes that children become more literate through participating in a broad range of activities that include read-aloud and group reading. Given this belief, the instructors will make sure that their classrooms have a comfortable library area, that the children can access many literacy materials without asking for them, and that they have table space for reading and writing silently.

2.4 Learning Corners

A Learning Corner is a special learning activity for pre-schoolers which strongly promotes independence and Love of Learning. It involves all the children playing and working on various tasks in the same classroom, under the supervision of 3 or more teachers. Learning Corners is based on the child-centred approach to teaching young children – it gives children the freedom to choose what to do and promotes socialization in learning. It also draws from the Montessori tradition of letting children from a broad age range learn together, working with tasks that build concentration and encourage independent and investigative learning styles (Essa, 1999; Wortham, 2000).

2.5 Impact of Learning Corners

The environment affects the people, or users, that interact with it. This is especially true in children who are susceptible to the influences of their surroundings (Watkins & Durant, 1992). The physical environment in the preschool setting influences a child's behaviour (Read, M. A., Sugawara, A. I., & Brandt, J. A. (1999). According to Isbell & Exelby (2001), the environment is a good indicator of how children should respond or act. Room arrangement and materials determine where children focus their attention.

Children learn through exploration and investigation of their surroundings. A learning corner should be attractive, exciting, and a place where a child can learn and play using suitable resources (Isbell & Exelby, 2001). Most of the characteristics in the physical setting can have an effect on the way the occupants behave and on their mental health. This includes the interaction with the learning corner, which aids children in their development. How children interact with their learning corner and its

occupants should influence the arrangement of objects and activities in the space (Isbell & Exelby, 2001).

In a recent study by Read et al. (1999), children were exposed to different variations in ceiling height and colour. They found that the behaviour of the children was significantly changed by the alterations in ceiling heights. This study demonstrates that changes made to the physical setting of a learning corner may have an impact on children's behaviour. In addition, a study by Teets (1985) found that modifications to the overall organization of the learning corner had positive changes in the ambience of the room; consequently, improving the children's behaviour. These two studies support the theory that there is a relationship between the learning corner and children's behaviour.

2.6 Benefits of Learning Corner

Children who participate in learning corners have the opportunity to use hands-on activities to learn from (Reyes, 2010). They can manipulate blocks or other objects to help with mathematics skills. They can learn through play in learning corners with clay or play dough to help with their fine motor development. They can dress up so they can use pretend play to encourage language development and social skills. Play is an important part of every child's life (Gullo & Hughes, 2011). When kindergarten children go to school their work is play. Play is important since it helps develop language, cognition, social competence, and self-regulation and learning corners are used in teaching through the act of play (Gullo & Hughes, 2011). This is the way a child learns, it is the way a child can explore the world around them and be successful (Stegelin, 2005).

Invigorating play environments promotes higher levels of thought during childhood (Stegelin, 2005). In this study, brain research shows that when a child learns something new it needs to be repeated often so it is not forgotten. The brain research findings state that physical, hands-on learning, eye-hand coordination activities, auditory and visually stimulating environments and consistent daily routines that are engaging for young pre-schoolers help them learn in the school setting.

Research shows that play in learning corners is just one way to help children's teach (Reyes, 2010). This is why learning corners are a valuable part of any kindergarten curriculum. This study stated that aside from learning corners, the learning corners are also developmentally appropriate for kindergarten pre-schoolers. Being an active participant in learning is important for children and having appropriate activities for them helps them learn better than doing worksheets (Reyes, 2010). Children are encouraged to explore the Learning corner by taking part in the activities provided. Children can play and learn with their peers by using shapes to discuss math goals. They can examine plants growing and what a plant needs to survive for a science centre. These activities might seem like the child is playing with the materials provided and not showing any type of learning. Learners that are more engaged with purposeful activities are planned and have fewer behaviour problems (Reyes, 2010). Children's language, cognitive, social, and emotional development develops by being involved in learning corners (Anderson, Spainhower, Sharp, 2014).

Learning corners help children with problem-solving skills (The National Association for the Education of Young Children, 1995). When children are playing together they often get into conflicts. When a conflict happens each child has to decide what to do to solve the problem.

The teacher is there to help give preschooler's support about the situation but lets the pre-schoolers figure out what to do. Social skills develop while children play together. Children are responsible for solving their problems. In a child-centred environment, children feel they have more power and control (Bottini & Grossman, 2005). Children are independent and can take on responsibility for themselves. Research on play states that children learn to cooperate, take turns, and play by the rules (Stegelin, 2005).

Learning corners help children with symbol representation (NAEYC, 1995). This is used so children can make objects stand for real things. When a child is playing in the dramatic play centre they often have to use their imagination and have items represent different things. This is an important skill for children to understand since letters have sounds that create words that represent an idea (Anderson et al., 2014).

Learning corners helps children with literacy skills (Stegelin, 2005). Teachers must nurture literacy development during the kindergarten year by giving children the most beneficial activities, such as play (Cavanaugh, Clemence, Teale, Rule, & Montgomery, 2017). Research showed a relationship with literacy skills such as decoding, oral reading, fluency, reading comprehension, and writing conventions just by giving children the opportunity for pretend play (Cavanaugh et al., 2017). In a reading centre children can look at many different types of books and pretend to read them. They learn about book handling and print awareness skills. They study the pictures in the book and start to pretend to read or make up the story. This is the starting stage of reading. Since children enter school with many different learning experiences with literacy this centre must be full of a print-rich environment. Literacy

props such as stuffed animals and puppets are a useful tool when helping children with their verbal expression and social interactions. Children can listen to songs, poems, and nursery rhymes to help with phonemic awareness skills and to learn letter names and sounds.

Early childhood educators promote oral language development and literacy-rich environments by producing play-based opportunities for children since children learn best through play (Cavanaugh et al., 2017). Creating a literacy-rich play environment shows that literacy is found in everyday use (Anderson et al., 2014). While children are playing they learn to stretch their language skills, build vocabulary, and understand how language works (Anderson et al., 2014).

A writing centre is a place for children to explore writing. Since children are at all different stages their writing can be represented with scribbles, letterforms, and letters. Preschoolers are encouraged to use developmental spelling when writing and to use print that is around the room (Anderson et al., 2014). While children are writing they can also be practising their handwriting skills. Instead of doing workbook pages' children can have an authentic purpose to write.

Children are working with print in the writing centre but it can also be used in other centres that children play in (Anderson et al., 2014). When children are in the play centre they can write a shopping list or write a letter to a friend. They can take orders for a restaurant they have created. They can fill out doctor notes for patients they have cared for in the doctor office they created. Writing can take place in other centres if the materials are provided (Reyes, 2010; Anderson et al., 2014). If they are

in the math centre they can create story problems for others to solve. In the block centre, a child can draw their creation for others to make. Children are using their imagination and using writing for an authentic purpose (Bautista et al., 2019).

Learning corners help children with mathematics and science concepts (Hansel, 2015). Building blocks are just one manipulative that is important to have in a centre. According to Hansel (2015), working with blocks helps children build a foundation in mathematics. Children can explore and understand shapes, measurement, geometry, and spatial relations. Children can count, sort, and classify blocks; they can compose and decompose with blocks; they can create patterns; they can see the difference between two and three-dimensional shapes just by touching and playing with them. Working with blocks has many benefits. When children are building with blocks they are solving problems with spatial visualization and spatial orientation. They are exploring the blocks and creating structures that inspire engineers, architects, and artists. Having child-led explorations with blocks and then having the teacher share photos or drawings of different constructions will enhance children's knowledge of vocabulary (Pyle et al., 2017b). Children have to also use problem-solving skills when creating their structures so the pieces will fit. Using blocks in learning corners also leads to STEM (science, technology, engineering, and mathematics) activities. Children have a better understanding of abstract concepts since they have the opportunity to play. Teachers have included learning about number sense through games children play (Pyle et al., 2017b).

When teaching science, Hansel (2015) states, that kindergarten children can explore freely with blocks to learn science standards. Children can ask questions and develop

hypotheses about the blocks and structure they are creating. They can test their hypotheses with their peers and discuss what happens. Children examine real materials to experiment with and investigate. Science learning corners have open-ended activities for the pre-schoolers to be interactive with and discover new ideas. It lets children be curious about learning.

Having an art centre lets children use their imagination and be creative. They get to explore the materials to make something new. Children can express themselves by using different materials and different art supplies that are provided in the art centre. Play helps with the development of creativity (Wood, 2014). Children can mix colours, express feelings by using colours, they practice their fine motor development by painting and other writing tools (NAEYC, 1995).

Learning corners help with differential learning (Gullo & Hughes, 2011). All pre-schoolers learn differently and are at different levels when they enter kindergarten. This is why differential learning is important. Differentiated instruction lets pre-schoolers use different materials, strategies, and experiences to guide their learning (Gullo et al., 2011). The activities planned in the centres are child-led and teacher-directed. The centres are put together so all children can explore and be successful at learning the concept being taught. Children can work at their learning level and are also challenged by the activities in the centre. Play lets children choose their level of challenge and stretches others in a low-stress situation (Gullo et al., 2011).

Learning corners promote decision-making skills (Bottini & Grossman, 2005). In this study, when the children start to play they have to decide where they want to go.

They are constantly making independent choices of how they are going to use the materials in the centre. They have to decide if they are going to create something with a partner or are they going to do something by themselves. Letting children have choices shows that the teacher is giving the child respect and trust (Bottini et al., 2005).

Learning corners help pre-schoolers with cooperation and teamwork (NAEYC, 1995). In this study, it was shown that children have to learn to work together when they are in each centre. They need to learn how to take turns and communicate with one another to help decide how they are going to play in the centre. When it is time to pick up they have to use teamwork so the job gets done correctly. They have more opportunities for social interaction with their peers that lead to cooperative learning.

2.7 Teachers Role in learning corners

The teacher's role in a classroom with learning corners is very different from a regular classroom activity. Teachers need to have assessments, set-up the learning corners, have a plan plus activities, interact with the children, and be an arbitrator when problems arise (Pattillo & Vaughan, 1992). Teachers are researchers, watching children how they play and how they can keep improving and making new learning corners (McDonald, 2018). The teacher must have an environment set up so that it is child-centred with engaging activities for children to participate in. According to Pattillo and Vaughan, (1992) each centre needs to be self-learning since learning corners promote independence. Each centre needs materials provided so children can work in small groups or independently. The teacher visits each centre for short periods to work with the children and to further their learning. While the child is

playing the teacher is observing, guiding them, and planning how they can tie in the standards that need to be taught (McDonald, 2018).

Since accountability is very important the teacher must have some type of assessment to show what the children are learning (Pattillo & Vaughan, 1992). Most of the assessments are done informally by observation by using checklists with the learning standard kindergarten pre-schoolers are required to know (Pattillo & Vaughan, 1992; Blessing, 2019). The teacher can ask probing questions to see what each child knows to see what the child's skill level is (Pattillo & Vaughan, 1992). They can collect pieces of their work or take pictures of what they have created to put in a child's portfolio. Assessments are valuable pieces of information since they will determine what skills children know and what they still need to work on (Blessing, 2019). This also helps when planning for new centre activities (Pattillo et al., 1992).

Pattillo and Vaughan (1992) state, when a teacher plans for a Learning corner they first need to think about the goals and standards they want the children to achieve (Pattillo & Vaughan, 1992). Each activity in the centre is focused on this goal and what is being taught in the classroom. Materials are put into the centre for children to use so the centre will be engaging. The activity must be something that children can do independently and many learning corners have anchor charts for pre-schoolers to follow (Pattillo & Vaughan, 1992).

Pattillo & Vaughan (1992), discuss a variety of ways a teacher interacts with the children at a Learning corner. The teacher can observe the child and watch what they are doing. Teachers can also use nondirective statements while visiting a centre. This

is where the teacher will talk about what the child is doing but it does not need any response back from the child. Teachers will often use two different types of questions when working with children at a centre. They will either ask open-ended or closed-ended questions. The teacher may also use directive statements to give directions to children at the centre. The last way is physical intervention. This is where the teacher may have to model what is expected at the centre such as how to play a game or how to work in a centre.

When children attend a Learning corner problems often arise. The teacher's role is to be an arbitrator where they assist children in handling conflicts (Pattillo & Vaughan, 1992). The teacher is not there to solve the problem but to encourage and guide them to find a resolution. Children need to be able to discuss their feelings and tell what is bothering them. This is one of the main reasons to have learning corners, it lets children have the responsibility and independence. It teaches them how to get along with others.

2.8 Developmentally Appropriate Practice (DAP)

Developmentally appropriate practices were developed by the NAEYC (Walter & Lippard, 2017). This practice was developed to help reduce learning gaps, increase learning achievement, and to improve education for the early childhood classroom by looking at teacher knowledge and decision making as an important part of making school effective (NAEYC, 2009). A developmentally appropriate program gives support for the child's social, emotional, and cognitive development (Pyle & Deluca, 2013). Children who participate in developmentally appropriate programs have fewer stress behaviours, better social skills, and are more motivated than those who are not in a developmentally appropriate classroom (Walter & Lippard, 2017). The

developmentally appropriate practice has been outlined as teaching decisions made about each child looking at the interests, age, and experiences (Repko-Erwin, 2017).

A developmentally appropriate curriculum is where the child is intrinsically motivated to explore and discover (Phillips & Sturm, 2013). Phillips and Sturm stated that developmentally appropriate practices develop a positive character in young children and the skills needed to be successful in school and life. They also stated that a DAP program is nurturing and a safe environment for children that promotes critical thinking skills, cooperative learning, and problem-solving skills. Developmentally appropriate programs use hands-on activities that are child-centred and use cooperative learning (Pyle & DeLuca, 2013). One of the principles of child development that the NAEYC (2009) stated, is that play is valuable for developing self-regulation, promoting language, gaining knowledge, and being able to communicate with others. Active scaffolding of imaginative play is required in kindergarten to grow and sustain mature dramatic play that improves self-regulation, and social and emotional benefits (NAEYC, 2009).

Phillips (2013), stated that a developmentally appropriate classroom needs to be inviting and welcoming. This can be done by having personal touches such as children's furniture, rugs, lamps, stuffed animals for children to use in the classroom while learning. Children should be able to explore the space by using the materials, be able to talk to others, laugh with one another, enjoy learning with others, and encouraging words should be used. Student's work should be displayed at their level along with other items that represent their family. All materials such as books, writing materials, dolls, and manipulatives should be in reachable places for children.

2.9 Development Areas Impacted by Play in Learning Corners

Vygotsky believed that cognitive development occurred within social interactions (Roden & Szabo, 2017). Most play in early childhood classrooms incorporates social interactions between children. In social interactions between children, they must be able to read their verbal and nonverbal emotions simultaneously to be able to know what is happening (Bremme & Erickson, 1977). In contrast, there are many instances during play where children do not have social interactions with other children. There are certain areas of play in which this is not necessary, such as an art centre and the writing centre. Socio-dramatic play also helps pre-schoolers develop language skills (Moyles, 2012). Children learn language by playing with other children and adults can facilitate that learning by describing what is happening during play (Moyles, 2012).

Today there are high-stakes tests, push-down curriculum, and widespread criticism from instructors, parents, and policy makers that believe play is a waste of time (Roden & Szabo, 2017). There has been a recent emphasis on academics in earlier grades to prepare pre-schoolers for standardized tests in later grades. Kindergarten used to be consumed with play and interaction between pre-schoolers and their instructors. Accountability and setting measurable standards are becoming as well known in early childhood as the concept of developmentally appropriate practice (Rushton, 2011). Going into a kindergarten classroom, someone may see pre-schoolers sitting and working or listening to the instructor. Kindergarten is now consumed with assessments and preparing pre-schoolers for the grades to come. As this emphasis on academics in education has become more prevalent in earlier grades, preschools are trying to keep play as a predominant instructional strategy in their classrooms. Preschool may now be known as the new kindergarten to some.

There are now assessments being done in preschool to ensure that they are ready for the assessments to come in kindergarten. In preschool, children need to acquire a set of fundamental skills, including linguistic, cognitive and social-emotional skills and not just academic learning (Bodrova & Leong, 2005). These fundamental skills not only help children learn how to read and solve mathematical problems but also help children learn how to solve a conflict (Bodrova & Leong, 2005).

Children are born with over 100 million brain cells (neurons), and they do not grow any more neurons in their life, what can be changed is the connection between them (Moyles, 2012). Brain plasticity means that the brain can change and grow, changes occur rapidly in the first five years. Brain development is linked to the children's environment. This shows the optimal time for children's brains to grow is during preschool. The brain develops from stimulation and the fundamental stimulation for children is play. Lack of play has been shown to have long-term effects including physical harm, social harm, emotional harm, and may not be able to cope with pressures.

Piaget's and Vygotsky's contributions to our understanding of the characteristics of play are in the dimensions related to abstract thinking and the creation of rules (Van Hoorn, Nourot, Scales, & Alward, 2007). Piaget (1952) saw the play as the construction of knowledge within the individual child by interacting with the object (toy). On the other hand, Vygotsky (1978) perceived play as a social interaction (two children playing together) and believed children learn about the self through their interactions with others. Ultimately, it is through the act of the play that children come to see the developing self. Mead (as cited in Catron & Allen, 2007), another

researcher, found that play is the major vehicle for young children to learn to differentiate their perspectives from those of others. When children play "pretend" and undertake other roles, they come to view their behaviour from the perspectives of other children. According to Mead, the young child functions in the pretence play, achieving a role transformation from the self to others (Van Hoorn et al., 2007). Similarly, Smilansky (1990) explained this developmental process as the beginning stages of role-playing. The child simply becomes or pretends to be a doctor, nurse, chef, or teacher and then returns to being the self.

2.9.1 Cognitive Development and Play

To show how play functions and develops as a complex, adaptive system as children grow older, it is helpful to review some of the commonly recognized forms and developmental sequences of play. Smilansky (1990) provided a model presenting five basic forms of plays:

1. **Functional play** or exploratory play. This type of play is a sensorimotor approach in which a child learns the nature of his or her surroundings. Such examples include dumping, filling, stacking, water play, and outdoor play.

2. **Constructive play** describes children combining pieces or entities, such as with blocks. The purpose of this type of play is to make something and/or work out a problem.

3. **Dramatic play** entails pretending. The child pretends to be someone else, for example, the instructor or a fireman. This type of play does not require any social interaction with other children. See the example provided below.

> Ricky is 4 years old and is playing with a fire truck in front of his house. He is pretending to drive a fire truck. As he drives his truck, he sounds the sirens, screaming, "Whee-

> ooh! Whee-ooh!" He is speeding to get to the fire. As he arrives at the fire, he connects the fire hose to the fire hydrant and holds the hose toward the fire. He then raises the tall ladder to the top floor of the building. He holds the hose and shoots at the flames. He makes a sound of relief, saying the fire is gone and the building is saved (p.42).

4. **Sociodramatic play** is a form of dramatic play with more than one player socially interacting around a theme and a time trajectory over which the play continues and evolves. Children enact real-life types of play activities.

> Jeffrey and Brian are 7 years old and are playing together at a park. The two boys are imitating army men and are pretending the play structure is their ship. Brian exclaims, "Take the wheel I see land!" Once they decide they have landed, they proceed to crawl on the wood ships, dragging their stomachs to a nearby tube. Both boys struggle in the new shelter and take their shoes off. After whispering for some time about the enemy, they continue to throw their shoes and make explosion noises. Following the shoe explosions, both boys take off in opposite directions screaming and looking for cover (p.51).

These boys are engaged in sociodramatic play. They have taken an object (their shoes) and turned it into something completely different, drawn from their imaginations. Also, they are not just children anymore; they have taken on the role of people in the army. Not only are they army men, but they are busy running from pretending people. In addition, they have taken a typical play structure and turned it into a ship.

5. **Games with rules** encompass cooperative play, often with winners and losers. These games are distinguished by child-controlled rules and thus are different from the competitive games usually called "sports." Children begin the games with the rules stage at about age 6. Games with rules become more evident as children move from early into middle childhood. This type of play behaviour suggests that children are understanding the social rules of our culture.

2.9.2 Social Development and Play

Many researchers have suggested different types of models to describe children's social play. Parten (1933) presented a model of socialization skills in play that is considered one of the best in the field. Parten stated that children engage in solitary play until about $2\frac{1}{2}$ years of age. Children move from solitary play into parallel play, associative play, and then cooperative play.

1. **Solitary play**—Children play alone, usually with toys that are different from those of the children playing nearby. Children at this stage do not attempt to get close to or interact with others. The level of social interaction at this point is very low. It is important, however, to realize that despite its lack of social value, solitary play should be encouraged as a part of a young child's activities. Much of an elementary child's day, for example, is spent doing independent seatwork. Children who have learned to be comfortable in solitary play are more likely to succeed in working independently.

2. **Parallel play**—Children from $2\frac{1}{2}$ to $3\frac{1}{2}$ years old continue to play independently, but now they are among their peers and use toys that are similar to those of the children around them. Just as parallel lines run side by side, children in this play stage play beside, but not with, others. There is an awareness of the children nearby but little interaction, as in the following example of parallel play:

> Sarah and Madison are both 26 months old and are playing in the sandbox. Both girls are digging holes and filling up buckets with sand. Although they are both engaged in the activity, they do not speak to one another or interfere with each other's area. After some time of playing in the sand, their only interaction with each other is when Madison takes Sarah's bucket and a conflict arises. When the bucket is returned, the two girls go back to playing in the sand, keeping to themselves for the remainder of the time (p.31).

3. **Associative play**— As children mature, they begin to engage in associative play, which begins at about $3\frac{1}{2}$ years old. In this type of play, children truly play with others. Children loan and borrow play materials from one another. Parten (1933) suggested that at this point, the associations are more important than the play activity itself. Children begin to form small playgroups and spend considerable time moving from one activity to the next, with playmates remaining together. The following is an example of associative play:

> Jessica is almost 4 years old and has a younger brother who is 16 months. She carefully watches over him and is often instructing him in what he can and cannot do. When he wanders off, she is quick to stop him from going anywhere, even when it is unnecessary to do so. He usually consumes most of her time; however, today her friend Kelly comes to the park. Within moments of the two girls spotting one another, Jessica loses all interest in her brother and replaces it with interest in Kelly. Jessica is following Kelly all over the play structure, and the girls become nearly inseparable during their playtime. When the girls decide to go down the slide, Kelly instructs Jessica to go down the other slide (which is parallel to her slide) so they can go down at the same time. Then the two girls choose the swings for some entertainment but quickly change their minds when they see that only one is available and they wanted to swing together. At the end of the play day, Jessica's brother attempts to come on the play structure, and Jessica instructs him to go away and tells him, "There are no babies allowed here." When Kelly states, "It's OK—he can play with us," Jessica yells for her brother to come back (p.41).

These girls demonstrate associative play. They are discussing what they are going to do and disregard plans that do not allow the two of them to be together. Also, they decide together who can be a part of their play and who cannot; when Kelly gives her approval of the new child in their play, Jessica is quick to agree.

4. **Cooperative play**—This final type of social play begins to take place at about $4\frac{1}{2}$ years of age. Parten (1933) described this as the highest level of social play; it is characterized by children playing in groups as they did in associative play, but now

the children demonstrate division of labour, whether working on a group project or cooperating to attain a common goal. Cooperative play is a more sophisticated type of play because it requires the process of negotiation among two or more children. An example of this negotiation process is when three children are pretending to work in a hospital setting. One child pretends to be the doctor, the second a nurse, and the third the patient. First, they negotiate by alternating their roles in the play, then they make suggestions about the plot, and one suggests they pretend that the patient has a cut and is bleeding and needs stitches and a bandage.

2.9.3 Emotional Development and Play

Play is an excellent vehicle for helping children with their emotional development (Johnson, Christie, & Yawkey, 1999). Children can master emotional issues such as anxiety, frustration, normal developmental conflicts, traumatic situations, unfamiliar concepts, and overwhelming experiences in their play. That is, play helps children find new ways of dealing with their emotions and their reality. As children play, they explore the properties of things and extract information about their environments. They imitate, re-create, and rehearse roles that help them understand and solve problems related to everyday living. They form relationships, share, cooperate, master their feelings, extend the range of their experience, test ideas, and form associations between things, events, and concepts. Another major emotional benefit of play is that it gives children numerous opportunities to feel good about themselves. Because there is no right or wrong way to play, children have multiple experiences in play, which positively influenced their concepts of self.

2.9.4 Language Development and Play

The act of play is influential in learning language and communication skills. When children are engaged in play, they use language to interact with their peers; as they interact, they are using different tones and sounds to regulate their speech, and are developing new vocabulary. Several researchers have argued that play and language promote children's development of expressive tones as well as their perception of the rules underlying the use of voice or conversation patterns of language (Bergen, 2002). Children are also able to improve their oral and written language skills. The language used in play, for example, encourages the development of metalinguistic awareness—the ability to reflect consciously on the linguistic operations and analytical orientations of language—which generates literacy development. This metalinguistic awareness allows children to think about the words they will be using in their conversations. Children play around with words, changing their syntax, use, and meaning. Children play with form, tone, and rhythm through words. Every aspect of language may be better grasped through play, according to Garvey (1990).

2.9.5 Physical Development and Play

A major characteristic of play is being active through dancing, jumping, throwing, running, and generally moving around. And children often strengthen their gross motor development through the use of their large muscles in these activities. Other types of play activities, such as cutting, eating, writing, buttoning, painting, and dressing, provide for their fine motor development, or refinement of the skills that require the use of smaller muscles. Through play, children are naturally able to use and learn to refine their gross and fine motor skills and coordination. As children get older, they use their muscles in continually more complex ways, integrating large and fine muscle movements with visual perception.

2.9.6 Creativity and Play

Through creativity, children use their imagination to invent or produce something new. The early years are very important for the development of creativity; young children have many opportunities to express and develop their creative talents. For example, during free play, young children experiment with things and ideas and create new combinations that they have never experienced before. According to Wasserman (1992), innovation arises from tinkering and playing about, from which new forms develop. New ideas do not originate from brains taught to slavishly adhere to what is previously known. Children develop their creativity in play situations that require them to use their imagination. Therefore, play materials are supposed to help elicit new ideas for children. Fostering creativity in children helps them promote healthy development and happy dispositions.

2.10 Developmental Benefits and Play

In addition to its developmental benefits, play provides a joyful experience for children, and it opens up the world to a child. No matter how eager we may be as early childhood educators to provide purposeful play opportunities for children that will enhance development and lead to learning, we must never forget that one of the greatest gifts of childhood is the ability to pursue seemingly insignificant interests and to explore tiny details to one's heart's content. Play is a marvellous, renewable resource in the life of a child. Play can follow any path the child desires and will end when the child decides to move on to something else or when the demands of living in the world intrude on the child's agenda. Play is practical, authentic, and an often suggested educational endeavour for young children who are gaining much of their knowledge about the world through their senses. Young children are very much dependent on sensory learning and physical contact with their environment. When

play is sense-based, it encourages children's active involvement in learning and is relevant and meaningful to them since they find it easier to attend and remain interested. When children are active in their play, learning becomes much easier.

2.11 Preparing the Physical Space for Play

In structuring the physical environment for play, consider these questions: How is the space arranged, both indoors and outdoors? Are there marked areas in which children may find the housekeeping, reading, and block materials? Is there enough space between the areas to walk around? All of these features of a classroom will foster children's freedom to choose their activities, which in turn develops the complexity of their play as well as encourages ongoing play. In addition to the arrangement of the classroom, size is important. Research on children's play environments indicates that between 30 and 50 square feet of usable space per child represent an ideal size for indoor environments. Spaces with less than 25 square feet per child generally lead to increases in aggression and unfocused behaviour for children (Smith & Connolly, 1980). For instructors, crowded physical spaces promote more directive teaching and limit opportunities for social interaction among children. In thinking about room arrangements, you may want to consider both the spaces arranged for children's play and the surrounding space, which is the area needed for people to move about.

2.12 Materials and Equipment for the Early Childhood Classroom

DRAMATIC PLAY

Child-sized kitchen equipment (with pots and pans), Dishes and silverware, Tables and chairs, Telephones, Child-sized ironing board and iron, Child-sized cleaning equipment (brooms, mops, dustpan, etc., Assorted dolls, Doll clothes, doll bed,

carriage, Dollhouse, furniture, Assorted tubs, buckets, dishpans, Assorted dress-up clothing, costumes, etc.

BLOCKS

Wooden and plastic blocks, Block accessories (people, cars, safety signs, etc.), Small blocks (sets of cubes, small coloured blocks), Sturdy wooden vehicles (cars, trucks, boats, planes, tractors, fire engines, buses, helicopters) etc.

ART

Adjustable easels, Brushes (half-inch to 1-inch widths), Liquid tempera paint (in a variety of colours), Painting smocks, Crayons, Coloured chalk, Clay, Scissors, Glue Paper (construction paper in a variety of colours, tissue paper, newsprints, white drawing paper), Drying rack for paintings, Miscellaneous supplies (fabric scraps, rickrack, yarn, ribbon, glitter, buttons, natural, materials) etc

LIBRARY/LISTENING/WRITING

Computer and printer, Typewriter, Paper (various colours, sizes, shapes) and writing instruments (pencils, markers), Tape recorder, tapes, books with tapes, Record player Flannel board with stand and flannel pieces, Books (professional and published by classroom authors), Magazines

MANIPULATIVE/GAMES

Hand puppets, Puzzles, Games (board games), Beads and strings, Sewing cards, Manipulative materials (ranging from stacking rings to very complex materials), Tinker toys, LEGO bricks, Bristle Blocks, etc.

SCIENCE/DISCOVERY

Aquarium, terrarium, magnets of various kinds, magnifying glasses, Prism, Metric measuring equipment, test tubes, slides, Petri dishes, pattern blocks, pegs and pegboards, scales, rhythm instruments, sandbox, water table with top, workbench with equipment, etc.

PHYSICAL EDUCATION

Balance beam, tumbling mat, Rocking the Boat, Steps, walking boards, Jungle gym, Fabric tunnel, Sawhorses, climbing ladder, climbing rope, Balls of various sizes, Ropes, hula hoops, bowling set, Outdoor equipment (gardening tools), etc.

CHAPTER THREE

METHODOLOGY

3.0 Overview

This chapter discussed the methodology that was employed in the study. It focused primarily on the research design, the setting, the population of the study, sample and sampling techniques, source of the data, the research instruments, pilot-testing, Trustworthiness of the study, validity and reliability of the research instruments, ethical considerations, data analysis and finally, summary.

3.1 Researcher's Methodological Position

The research paradigm is the philosophical or motivation for undertaking a study (Cohen, Manion & Morrison, 2007). The study was located basically in the pragmatic paradigm. Pragmatism is not committed to any one system of philosophy but focuses on the 'what' and 'how' of the research problem. The mixed-method approach was employed in the study. In general, pragmatists believe in employing research methodology that involves collecting, analysing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon. Hence, the study employed the mixed methods approach due to the nature of the research questions and advantages to be derived from applying two different approaches in garnering the required data. This design, according to Creswell (2012), involves combining or integration of qualitative and quantitative research data in a research study.

These two approaches allowed the researcher to study the effect of learning corners on preschoolers' learning outcomes, both quantitatively and qualitatively. No single approach, either qualitative or quantitative method can perfectly be effective

and thus, each method can be improved significantly through triangulation of data from various sources (Yin, 2014). Creswell (2012) also postulated that a mixed-methods design is useful when the quantitative or qualitative approach, each by itself, is inadequate to best understand a research problem and the strengths of both quantitative and qualitative research (and its data) can provide the best understanding.

3.2 Research Design

A research design is a plan that describes the conditions and procedures for collecting and analysing data (McMillan & Schumacher, 2010). In research design, it is believed that a good and careful design ensures that the research is valid and could yield consistent results every time (Yin, 2014). In general, there are several established research designs that a researcher could choose from: comparative design, cross-sectional design, longitudinal design, case study design or the traditional experimental design (Creswell, 2012). However, social phenomena have to do with extremely varying human conditions in different environments that make it difficult for social science researchers to choose appropriate research approaches and methods to investigate the specific problem concerned.

Given this, the study employed a convergent mixed-method design. Convergent mixed method design is an approach to research where the researcher collects both quantitative and qualitative data, analyses them separately, and then compares the results to see if the findings confirm or disconfirm each other (Creswell, 2012). Mixed methods researchers call this a side-by-side approach because the researcher makes the comparison within a discussion, presenting first one set of findings and then the other. The key assumption of this approach is that both quantitative and qualitative data provide different types of information, often detailed views of participants qualitatively and scores on instruments quantitatively, and

together they yield results that should be the same. It builds off the historic concept of the multimethod where a phenomenon can best be understood by gathering different forms of data (Creswell, 2012).

Researchers of mixed methods argue that the intent of quantitative and qualitative research differ (one to gain in-depth perspective and the other, to generalize to a population) and that each provides adequate count. The interpretation in the convergent approach would be typically written into a discussion section of the study, whereas the results section would report on the findings from the analysis of both the quantitative and qualitative databases. This method is deemed appropriate as it would be used to confirm, cross-validate or corroborate findings. This would enable the researcher to overcome a weakness in one method with the strengths of another. It can also be useful in expanding quantitative data through the collection of open-ended qualitative data. The study area for the research was the 34 public basic schools in the Ga-East Municipality.

3.3 Target Population

A population according to Kusi (2012) is a group of individuals or people with similar or same characteristics which are of interest to the researcher. A review of the literature revealed two types of population: target population and accessible population (Owu-Ewie, 2012). The target population refers to a specific group to whom the researcher intends to generalize the study findings on. The target population for this study was all the kindergarten facilitators in the 34 public basic schools in the Ga-East Municipality but the accessible population was 35 facilitators from 5 basic schools.

3.4 Sample Size and Sampling Technique

A sample is a small population selected from the accessible population for observation and analysis (Owu-Ewie, 2017). Lodico, Spaulding and Voegtle (2006) indicated that 30% or more of the population is adequate to serve as a study sample in quantitative research. On the other hand, Gay (2003) suggested that in quantitative research, 10% or more of the population is adequate to serve as a study sample. Based on that, a percentage of 10-30% would be structured from the total population of the participants for the study, which will include the facilitators and the principals or head teachers of the schools.

Seidu (2015) added that sampling is taking a portion of the population of a study as a representation of the whole population. Stratified random sampling techniques was employed for the study. Stratified random sampling according to Owu-Ewie (2017) is used when sub-groups are involved in the study and the opinion of each sub-group is crucial in the study. He noted that there are two types of stratified sampling: non-proportional stratified random sampling and proportional stratified random sampling. In this study, a non-proportional stratified simple random sampling technique were used to select the sample size. A non-proportional stratified simple random sampling (also known as disproportionate stratified sampling) is a stratified sampling procedure in which the number of elements sampled from each stratum is not proportional to their representation in the total population. Population elements are not given an equal chance to be included in the sample. This technique was used for both the qualitative and quantitative phase.

Firstly, each of the schools in the municipality would be treated as a stratum. Secondly, a simple random sampling technique was then used to select the facilitators

from the respective schools. In each of the sampled schools, a minimum of two and a maximum of three facilitators would be selected depending on the number of facilitators in the school. In the case of any school visited, requested the names of the facilitators from the head teacher or principal. The researcher wrote the names of each respondent (facilitator) on a piece of paper folded it and mixed them then picked three of the folded papers randomly. The facilitators whose names appeared on the papers were chosen to take part in the study. However, in schools where there were one or two facilitators, they were automatically selected. In all, professionally trained facilitators were randomly selected out of the total population.

Owu-Ewie (2012; 2017) noted that in simple random sampling, all the individuals in the defined population have an equal and independent chance of being selected. These facilitators were selected because of their long service, experience in instruction and willingness to be interviewed. Therefore, thirty-five (35) facilitators were finally selected to participate in this study

3.5 Pilot Test

A pilot test was conducted in the Kwabenya Atomic Municipal Authority (KAMA) cluster of schools before the actual fieldwork of the research under study. These schools were selected because they share common or similar characteristics of the sampled schools earmarked for the study such as qualification of facilitators, teaching Time-Table, and Teaching and learning resources. Two facilitators were purposely picked from each of the 3 schools, summing up to 6 participants for the pilot testing and a non-proportional stratified simple random sampling was used them. The purpose of the pilot study was to test the research instruments and gain more insight

into the research problem. The preliminary study was undertaken to help the researcher to make informed decisions about the actual study.

Eiselen, Uys and Potgieter (2005), noted that the outcome of the pilot study enables the researcher to adequately prepare ahead of the main research. It also gives an indication to the researcher about the expected response rate of the respondents. As a result, it is highly recommended that researchers pilot-test their instruments on subjects with the same or similar characteristics of the sampled population under study (McMillan & Schumacher, 2006). The pilot study provided room for the researcher to modify items to reduce ambiguities and inconsistencies in the instruments (Awanta and Asiedu-Addo, 2008).

3.6 Research Instrument

I used a closed-ended structured questionnaire for the quantitative phase and a semi-structured interview schedule for the qualitative phase of the study.

3.6.1 Structured Questionnaire

The study primarily used a closed-ended structured questionnaire to collect the quantitative data for the study. A closed-ended questionnaire is defined as a research instrument that consists of series of question items and (sometimes possible responses) that are used to gather information or data from research participants (Pattern & Newhart, 2017). The type of closed-ended questionnaire used was the five Point Likert-type scale which will be scored as: “Strongly Disagree” =1, “Disagree” =2, “Uncertain” = 3 “Agree” =4, and “Strongly Agree” =5. The questionnaire was divided into five (5) main sections which section one collected demographic data on participants and the subsequent four sections on the four research questions of the study.

3.6.2 Administration of the Questionnaires

Before the questionnaire was administered, each head teacher of the various sampled schools convened a meeting involving the facilitators for me to introduce and explain the study to them and also to be familiarised with the school environment. I assured the participant of the confidentiality of their responses in my presentation. Subsequently, the questionnaires were personally administered to the facilitators and were collected when they were ready. A total of 40 questionnaires were administered to the respondents but 35 were retrieved for analysis. Therefore the study attained a response rate of 87.5%. The response was realized because some of the questionnaires were badly answered while others had much- missing data.

3.6.3 Semi- Structured Interview Guide

A semi-structured interview schedule was used for the qualitative phase. In semi-structured interviews, an interview guide is used, but there is room for probing questions which allow unearthing issues not listed on the interview guide (Dawson, 2019). For every participant that I spoke to, I seek their permission to record their voice on tape. From the tape, recordings were subsequently transcribed into a readable version.

3.6.4 Conducting the Interview

I intended to explore the ideas, views, beliefs and attitudes of the respondents for an in-depth understanding of the phenomenon through interviews. The researcher used face-to-face interviews with the respondents to seek their views on the preschool environment and learning corners of the pre-schoolers. Each interview session lasted between forty (40) to fifty (50) minutes with each respondent. The interviews were conducted during working hours because I received permission to research the schools. This was done during the free periods of the sampled facilitators.

During the process, I audio recorded the interview sessions with the facilitators' consent and thereafter transcribed them verbatim. The use of the audio recording affirmed the assertion made by Duranti (1997) that no matter how good one may be as a writer, if his/her goal is to have the most accurate records of a given interaction, then writing will be a very poor technology for describing the richness of his/her experience of either being in an event or witnessing it as an observer. I also used probing questions to enable participants to provide further information as suggested by Creswell (2010). During the interview, I also took field notes regarding the interview interactions (both verbal and non-verbal communication) between me and the participant. I after each interview session asked participants if they had any questions they would like to ask in case I left out something. The interview was conducted in an atmosphere of mutual trust which is devoid of any threat. I then thanked the participants for their time, their contribution, and above all agreeing to take part in this study.

3.7 Establishing the Trustworthiness of Qualitative Data

The trustworthiness of every qualitative research depends largely on the ability and effort exhibited by the researcher. Trustworthiness is the validity and reliability of qualitative research. Trustworthiness is what is used to evaluate the quality of any qualitative research. Golafshani (2003) noted that validity and reliability are inseparable in qualitative research. To ensure trustworthiness in a qualitative study, Lincoln and Guba, (1985) noted the following as key ingredients; credibility, neutrality or confirmability, consistency or dependability and applicability or transferability. The researcher in an attempt to ensure trustworthiness in this study adopted Lincoln and Guba's model of evaluating the worth of the study. The model

was adopted since it is developed conceptually and is widely used by qualitative researchers.

i. **Credibility** Anney (2014) defined credibility as the confidence that can be placed in research findings. To ensure credibility in this study, I spent sufficient time with participants in the various sampled schools to gain knowledge into the context of the study (prolonged engagement), present collected data to participants to verify (member checking), and finally expose the collected data to colleagues for constructive criticism (peer debriefing).

ii. **Transferability/Applicability**

Transferability of applicability according to Bitsch (2005) is the degree to which qualitative research findings/results can be applied to different participants with similar characteristics. To ensure the transferability of this research results, I provided a vivid description of the steps taken throughout the study.

iii. **Confirmability/Neutrality**

Anney (2014) noted that confirmability/neutrality tries to prove that data and interpretation of any research findings are not the researcher's fabrications or imaginations, but rather natural and truly derived from participants. I attempted to ensure confirmability in the study by highlighting every step of data analysis that was used to justify every single decision taken (audit trial).

iv. **Dependability**

Bitsch (2005) explained that dependability is the stability of any research findings over a while. To ensure the study dependability, I summited the work for audit by my research supervisor in the Department of Early Childhood

Education to examine the process and product of the study. The feedback generated from the audit was used to improve the trustworthiness of the study.

3.8 Validity and Reliability of the Quantitative Data

3.8.1 Validity

An instrument is said to be valid if it measures what it is supposed to measure (Creswell, 2010). There are various forms of validity. They include face validity, which refers to whether an instrument appears to measure what it is supposed to measure. Content validity addresses the match between items and the content or subject domain they are intended to measure. Kimberlin and Winterstein (2008) explained that, because there is no statistical instrument that determines whether or not a research instrument sufficiently covers the content it intends to measure, content validity usually depends on the judgment of experts in the field of study. Bearing this in mind, consulted my supervisor who is an expert in the field of Early Childhood Education who deeply scrutinized and assessed the instruments for their relevancy. This was done mainly to ensure that the instruments address all relevant issues in the phenomenon under study (Eiselen, Uys & Potgieter, 2005). Construct validity, on the other hand, is the kind of validity needed for standardization. If for instance one measures intelligence, it must measure all personality factors related to intelligence. Criterion validity, construct indicates the correlation between the instrument and criterion. A high correlation implies a high degree of validity (Creswell, 2010).

To ensure the validity of the data collected for this study, the triangulation method was employed. According to White (2005), triangulation ensures that more than one source of data collection method is used in the study. Thus, a questionnaire and an interview guide were used in this study. To further ensure validity, the interview

guide was used to confirm and seek clarity on the interview transcripts from the participants

3.8.2 Reliability

Reliability deals with whether or not a repeated assessment will produce the similar or same result in similar or same circumstances. Similarly, Joppe (2000) opined that reliability is the extent to which results are consistent over some time and an accurate representation of the total population under study. The author further noted that the concept of reliability comes to mind when the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. In other words, the instrument is repeatable and consistent (Creswell, 2010).

To ensure reliability in the study, the researcher pilot-tested the instruments (questionnaire and the interview guide) in the Ghana Atomic Energy Commission basic school which have similar characteristics to test the instruments before the actual collection of data. The instruments were pilot-tested and revise the inaccuracies appropriately to enhance their efficacy. Furthermore, the use of multiple sources of data (triangulation) in research also strengthened and increased the reliability of the observations (Mertler & Charles, 2008). To ensure both validity and reliability, the researcher used multiple forms of data to answer the research question that is supported by David and Sutton (2004). Reliability analysis of the piloted questionnaires was carried out using Crombach's Alpha statistics with the help of statistical Package for Social Sciences (SPSS) version 20. According to Crombach's Alpha reliability, coefficient values 0.70 and above are considered reliable. The reliability coefficient of the interview guide was however not calculated because the items on the interview guide were predominantly open-ended and demands free responses from the respondents.

3.9 Ethical Considerations

In the context of research, according to Bryman (2012) "ethics refers to the appropriateness of your behaviour about the rights of those who become the subject of your work, or are affected by it". The following ethics will be observed in the research study:

i. **Informed consent:** Participants were given the choice to participate or not to participate, and were informed in advance about the nature of the study.

ii. **Right to privacy:** The nature and quality of participants' responses were kept strictly confidential.

iii. **Honesty with professional colleagues:** Findings were reported completely and honestly, without misrepresenting what has been done or intentionally misleading others as to the nature of it. Data may not be fabricated to support a particular conclusion.

iv. **Confidentiality/Anonymity:** It is good to research practice to offer confidentiality or anonymity, as this lead to participants giving more open and honest responses.

3.10 Data Collection

The researcher sought permission from head teachers of schools within the study area and visited the facilitators of nursery schools in such schools on days which were comfortable for the facilitators. The facilitators were interviewed first then they were later given the questionnaires to be answered at their own leisure. Most of these interaction occurred in the facilitators classrooms during their lunch break. This made the facilitators comfortable to share their experiences.

The researcher would first introduce herself and state the reason for being there, then ask permission from the respondent to record and answer their questions. After receiving their affirmative response, the interview begun. The researcher asked questions from the interview guide in a language and manner which made it easy for the respondent to understand and answer. The researcher likewise waited patiently for the respondent's response while taking notes. The respondent was allowed to explain any matters to clarify their answer. When the interview was concluded, the researcher thanked the respondent for the interview session then proceeded to give them the questionnaire to be answered and retrieved at a later date. By taking the questionnaire at a later date, it allowed the respondent to be more receptive towards the researcher and the questionnaire. The researcher thanked the respondent again for their time and willingness to be a part of the research and then left the premises.

3.11 Data Analysis

Quantitative data of the study were analysed using descriptive statistics with the help of SPSS version 20. The researcher used descriptive statistics such as; frequencies and percentages to analyse the quantitative data of the study. The items of the questionnaire were structured to reflect the research questions of the study. In addition, the qualitative data from the interview guide were categorized according to themes to reflect on the research questions and the purpose of the study. The analysis followed a systematic process of coding, categorizing and interpreting data to provide clarifications with the research questions (McMillan & Schumacher, 2006) using Atlas. ti 7.5.18 version, a qualitative research data analysis software.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents an analysis of data gathered for the study from the questionnaires and interviews which sought to examine the effect of learning corners on the pre-schoolers learning outcome in early childhood education in the Ga-East Municipality. The presentation was guided by the following research questions.

1. What types of learning corners are they used by instructors in teaching pre-schoolers in the Ga-East Municipality?
2. How do learning corners influence the learning outcomes of pre-schoolers in the Ga-East Municipality?
3. What are the challenges faced by instructors in structuring learning corners in improving the learning outcomes of pre-schoolers in the Ga-East Municipality?

The data were represented using descriptive statistics involving simple percentages and frequencies while the interviews were interpreted thematically. The chapter first presents an analysis of the demographic data of the respondents and secondly presents and analysis the research questions.

4.1 Demographic Characteristics of Respondents

The demographic distributions of the respondents were crucial to the study because they showed that data were collected from respondents with diverse backgrounds, thereby making the data-rich and devoid of bias. In this way, the authenticity of the

data and their findings were enhanced. Furthermore, the demographic factors like gender, age, educational qualification and teaching experience of facilitators assisted in determining the extent to which these factors influenced their knowledge on the utilization of learning corners.

Table 4.1: Gender of the respondents ***n=35***

Gender	**Frequency**	**Percentage (%)**
Male	7	20
Female	28	80
Total	**35**	**100**

Source: Fieldwork, Data (2021).

From the data shown in Table 4.1, 7 respondents representing 20% were male while 28(80%) were female. This shows that there are more female facilitators in early childhood education than males in the Ga-East municipality. Table 4. 2 shows the ages of respondents for the study.

Table 4.2 Demographic data of respondents in relation to Age ***n =35***

Range of Age(s)	**frequency(f)**	**Percentage (%)**
20 years or less	-	-
21 – 30 years	4	11.4
31 – 40 years	12	34.3
41- 50 years	17	48.6
51 + years	2	5.7
Total	**35**	**100**

Source: Fieldwork, Data (2021).

From Table 4.2, four respondents (11.4%) were between the ages of 21 and 30 years. Twelve (12) representing 34.3% fell within 31 to 40 years; 17(48.6%) were between the ages 41 and 50 years whiles 2 representing 2(5.7%) were also above 51 years. It

could be noticed from this presentation that the majority of the facilitators who participated in this study are matured enough and that might influence how best they can handle children in the preschool classrooms. Table 4.3 presents the educational status of the respondents for this study.

Table 4.3: Educational Qualification of Respondents ***n=35***

Educational Qualification	**No. of Respondents**	**Percentage (%)**
Teacher certificate A	4	11.4
Diploma in education	7	20
First Degree	8	22.9
Masters	11	31.4
Postgraduate Diploma	5	14.3
Others	-	
Total	**35**	**100**

Source: Fieldwork, Data (2021).

The data in Table 4.3 sows that 4(11.4%) held Teacher Certificate A, 7(20%) held Diploma certificate, whiles 8(22.9%) had obtained Bachelor Degree whiles 11(31.4%) had Master's Degree certificate, 5(14.3%) held Postgraduate Diploma. The data indicate that a greater percentage of respondents had obtained the requisite teaching and non-teaching qualification. Many research findings have established that teacher's teaching qualification is positively correlated with the learning outcome. The researcher found out that teacher's qualifications contributed to the improvement of students' scores in their academic performance. Table 4.4 shows the teaching experience of the respondents for this study.

Table 4.4: Teaching Experience of Respondents *n=35*

Teaching Experience	Frequency	Percentage (%)
1-5 years	9	25.7
6-10 years	8	22.9
11-15 years	10	28.6
16-20 years	5	14.3
21 years and above	3	8.5
Total	**35**	**100**

Source: Fieldwork, Data (2021).

In finding out the teaching experience of the facilitators, it came to light from the data in Table 4.4 that, 9(25.7%) respondents have had 1-5 years of teaching experience, 8(22.9%) of them have been in the teaching profession from 6 to 10 years, 10(28.6%) have been in the teaching profession from 11 to 15 years, 5(14.3%) have had 16-20 years teaching experience and 3(8.5%) have had 21 years and above teaching experience. The researcher supports that experienced teachers need to be retained in schools if higher productivity is to be obtained because learners achieve more from these teachers. Experienced school authorities can identify teachers' and students' problems and help address them to aid effective teaching and learning.

4.2 Research Question One: What Types of Learning Corners are used by the facilitator in teaching pre-schoolers in the Ga-East Municipality?

This section collected data on the first research question to explore the types of learning corners used by facilitators in teaching pre-schoolers in the Ga-East Municipality. Three questions designed in the questionnaire, Section B of the qualitative phase, were used to collect answers for this section. The result is as follows;

Table 4.5: Utilization of learning corners in preschools. ***n=35***

Do you use	YES	NO	**TOTAL**
Learning corners in teaching pre-schoolers?	**F(%)** 35(100)	**F(%)** -	35(100)

Source: Fieldwork Data, (2021).

Data presented in Table 4.5 in finding answers to whether or not the facilitators who participated in this study utilize learning corners in teaching pre-schoolers in their various classrooms indicated that all of the facilitators who responded to the study representing 35(100%) in one way or the other use learning corners in teaching their pre-schoolers. This specifies that the use of learning corners by facilitators in teaching children has widespread among the preschools in the Ga-East Municipality as introduced into the MOE in the Kindergarten Curriculum for Preschools with its benefits encouraging children to love learning. This is in association with the main intent of Frobel. Froebel invented kindergarten so children could love learning. He wanted the kindergarten classroom to be a place where young children could explore and play while learning (Reifel, 2011). It is a place where children can sing, move, story tell, and play-act (McLennan, 2011). He wanted children to learn naturally not by rote (Hoskins & Smedley, 2019). It was his garden of children where kindergarten gets its name. The goal for young children was to be involved and knowledgeable about the world which can be experienced in learning corners.

Table 4.6: Type of learning corners used in the preschools n=35

Type of Learning Corners	Frequency (f)	Percentage (%)
A nature corner	3	8.6
Sand corner	20	57.1
Shopping corner	8	22.9
Make - belief corner	4	11.4

Source: Fieldwork Data, (2021).

From Table 4.6 the data show that all the participants use multiples of learning corners in their pre-school classrooms. In exploring what type of learning corners these facilitators use, it was revealed that the majority of the respondents representing 20(57.1%) used sand corners, where the second dominant corner used as the shopping corner representing 8(22.9%) followed by the make belief corner, 4(11.4%) and finally a natural corner which seems to be the less used learning corner in the schools representing 3(8.6%). It could be depicted that, a sand corner which can be simply created for the children was mostly used by facilitators as it is easily arranged and far less expensive than in setting up than others like the natural corner which involves purchasing of natural objects for building a corner and may sometimes involve interfering with the natural environment with plants and others.

However, the shopping corner as the second dominant corner use by facilitators is not much expensive and difficult to build as it involves reading and writing, numbers and counting, the concept of money, identification, classification and grouping. With this, not many expensive materials are needed. In light of this, Stefanie De Vos and Elisabeth Laplanche in their book, Low-cost Material for Learning Centres – Educational Corners (n.d.) advised that there are different factors to take into account while deciding about the number of corners in your classroom. It will depend on the

size of the classroom, the available space and the number of children in your class (pg. 4).

In the same vein, the researcher interviewed some facilitators on the types of learning corners they use in teaching pre-schoolers in their classrooms. The researcher only presented answers that were not repeated. The following responses were based on the types of learning corners used by facilitators in teaching preschool children in their classrooms. F1(Facilitator 1), F2, F3,etc. are pseudonyms used to identify the interviewees.

Another corner we mostly use is the art and design corners which are not mostly used by other schools. In this corner, the children are stimulated to create, to draw, to use a pair of scissors, to paint, to colour, … They learn how to use a pencil… [F1]

Oh, okay. Here, we add the physical education corner where children develop their gross and fine motor skills by moving in different ways. They get fit by exercising, they exercise physical skills. Also, manipulative skills are acquired. [F2]

We usually use the music corner. In this corner, the children can explore with instruments (real ones or self-made) or with low-cost materials (for example paper, plastic bottles, wooden sticks, …). [F3]

I also add the block's corner where the learners play and build with the blocks, make patterns, sort blocks (by colour, by shape), … [F4]

Over here, we also use the rest corner or the cosy corner where children can rest, explore with their senses, feel comfortable, they only go there to sit without talking to others. Widely spread with facilitator assessing them … [F5]

I use the science corner, and the children love that. In this corner, children can explore with natural materials like leaves and branches, and materials around technology, physics, etc. [F6]

The language corner is also used in my classroom. For that corner, children 'play' with the alphabet: they recognise the different letters and words. [F7]

We also use a game/puzzle corner. A corner containing different games and/or puzzles. [F8]

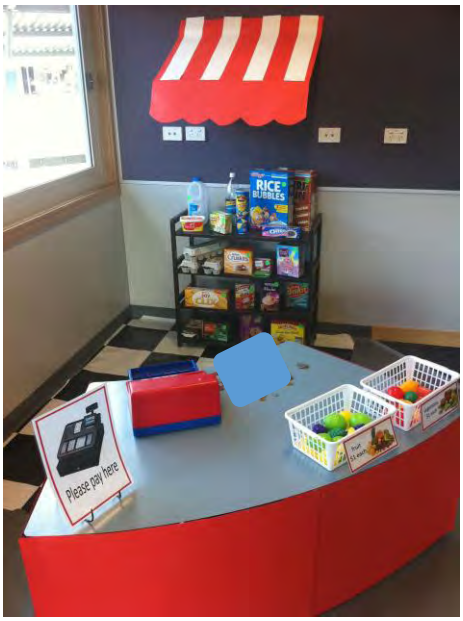
It can be depicted from the responses of the facilitators during the interview that, aside from the main four blocks of learning corner, other types of learning corners are incorporated in various schools to enhance the teaching and learning of the pre-schoolers in the Ga-East Municipality.

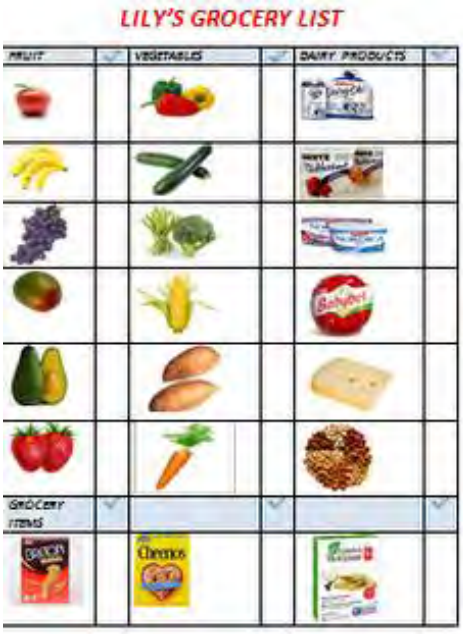
4.2.1 Materials used in learning corners in the preschools

In this section, the researcher asked about the materials used in teaching the various types of learning corners in preschools. It was revealed that not many facilitators teach with nature corners, though they can purchase most of the materials. However, some schools had the materials and equipment for teaching with learning corners. Below are images of various setups of some learning corners in some selected schools.

Images of some nature corner setups in some preschools

Images of shopping corners setups in some preschool





Images of sand corners setups in some preschool

Materials used for make-belief corner/role play in the various schools

1. Uniforms for various professions
2. Aquarium
3. Books
4. Flashlight
5. Living Animals
6. Magnets
7. Magnifying glasses
8. Metric balance
9. Microscope
10. Mirrors
11. Outdoor garden Planting materials Plants
12. Posters/Chart Puzzles Scales Sensory table
13. Thermometers
14. Videotapes
15. Vinyl animals
16. Candles
17. Cardboard
18. tubes
19. Coffee cans
20. Egg cartons
21. Egg
22. timer
23. Flower pots
24. Food colouring
25. Funnels
26. Latches
27. Locks and keys
28. Measuring cups
29. Spoons
30. Milk cartons
31. Old sheets
32. Pillowcase
33. Pitchers
34. Plastic jars
35. Container
36. Prisms
37. Pulleys
38. Rubber tubing
39. Rulers
40. Small cages
41. Sponges
42. Spools
43. Tape measures
44. Yarn

In the interview with the respondents to find out the materials they use for their various learning corners, materials for the corners not mentioned in the questionnaire were mentioned as some participants mentioned that;

In the block corner, we usually use blocks (plastic or wooden), foam shapes, empty milk or juice cartons, yoghurt pots, toilet rolls, empty bottles, wooden sticks, bigger stones, …

We use blocks that all have the same shape but different colours OR use blocks which all have the same colour but different shapes.
They learn different colours and shapes and how to match the blocks by colour and shape. [F2]

In the shop corner, I use empty packages for this corner, for example, Biscuits, sweets, soft drink bottles, milk cartons, tissues, lotion, cereal boxes, toothpaste, juice cartons, soap bar packages, egg cartons, …

It's not because I can use anything, you have to fill your shop with everything. I Just choose some materials around a specific topic. Make, for example, a soft drink shop, a pharmacist shop, a candy shop, a shop full of baby stuff, etc. [F27]

In the rest corner, I use items like blankets, puppets, dolls, matrasses, pillows, stories, kamishibai, bean bags. There are varieties of items to interact with within this corner such as the Touching wall, Shakers, Shinny bottle, Surprise box, Sniffy bags, Touching book and many more. [F16]

In the science corner, we usually use a box with water and materials: the children learn which materials float and which one sinks. Nature elements f.e. rocks, leaves, little wooden sticks, … A box with the ground: the children can learn how to plant or sow seeds. I don't use real seeds for this corner, I teach them the action of sowing and planting by using uncooked beans. A box with empty bottles and caps: the children match the right cap with the right bottle.

You don't offer all those different possibilities at the same time in the class. You just choose one at a time. You can also put another material in an empty box that fits with the topic you are teaching about. F.e. if I am teaching about the topic 'bathing' I can make a box with water, foam and sponges. The children love it! [F9]

In the language corner, I use books, kamishibai, posters of the letters, alphabet puzzles, pre-writing dice, pre-writing coins, dancing ribbons, … [F30]

As for the game corner, we use puzzles, board games, card games, … [F34]

From the responses presented it was revealed that some facilitators invest time and money into the teaching of their pre-schoolers using learning corners in the municipality.

4.3 Research Question Two: How do learning corners influence the learning outcome of pre-schoolers in the Ga-East Municipality?

This section intended to identify how learning corners in the selected preschools of the Ga-East Municipality affect the learning outcome of the children.

The scale developed by the researcher that was in line with the literature was used to measure the rate at which the facilitators' response to the questions. It consisted of 19 statements and had a five-point scale such as “Strongly Agree = SA”, “Agree = A”, “Uncertain = U”, “Disagree = D” and “Strongly Disagree = SD” with scoring as 5, 4, 3, 2 and 1 respectively. Based on the total scores, the influence of learning corners in the selected schools was quantified as follows.

Table 4.7: Influence of learning corner on pre-schoolers in the Ga-East Municipality [n=35]

S/N	Influence of Learning Corners	SA F(%)	A F(%)	U F(%)	D F(%)	SD F(%)
1	Children learn to explore, investigate and experiment	13(37.1)	18(51.4)	1(2.9)	3(8.6)	-
2	Children learn the benefits of nature	10(28.5)	18(51.4)	7(20)	-	-
3	Promotes creativity and imagination	12(34.3)	14(40)	2(5.7)	6(17.1)	-
4	Overcoming challenges – problem solving	9(25.7)	20(57.1)	3(8.6)	2(5.7)	
5	Children begin to think and learn about things around them	16(46)	19(54.3)	-	-	-
6	Children learn how to ask questions	15(43)	15(43)	2(5.7)	3(8.6)	-
7	Encourages children to express their ideas and feelings in a relaxed environment	9(25.7)	20(57.1)	2(5.7)	4(11.4)	
8	Develops children's awareness of themselves and others	13(37.1)	12(34.3)	5(14.3)	4(11.4)	1(2.9)
9	Brings out nurturing qualities in children	17(48)	13(37.1)	2(5.7)	-	-
10	Development of fine motor skills	9(25.7)	12(34.3)	1(2.9)	3(8.6)	
11	Allows children to act out and make sense of real-life situations	20(57.1)	11(31.4)	2(5.7)	2(5.7)	
12	Hand & eye coordination	5(14.3)	11(31.4)	7(20)	11(31.4)	1(2.9)
13	Sensory- development of the sense of touch through feeling and manipulating objects.	2(5.7)	8(22.9)	9(25.7)	13(37.1)	3(8.6)
14	Develops social skills as children collaborate with others	12(34.3)	23(65.7)	-	-	-
15	Develops communication and language skills	11(31.4)	19(54.3)	-	2(5.7)	3(8.6)
16	Children learn to make sense of their immediate world	9(25.7)	13(37.1)	6(17.1)	7(20)	
17	Children learn to empathize with others;	8(22.9)	21(60)	-	4(11.4)	2(5.7)
18	Helps children learn about different cultures	7(20)	15(43)	4(11.4)	9(25.7)	
19	Develops children's awareness of themselves and others	8(22.9)	18(51.4)	2(5.7)	7(20)	

Source: Fieldwork Data, (2021).

In finding out the extent to which learning corners influence the development of pre-schoolers as the second objective of this study, it could be depicted from Table 4.7 that, 18(51.4%) and 13(37.1%) of the facilitators who participated in this study either agreed or strongly agreed that children learn to explore, investigate and experiment when teaching with learning corners. However, 3(8.6%) participants of the study disagreed with that whereas the remaining person 1(2.9%) was uncertain whether children learn to explore or investigate and experiment. Also, the majority of the participants 28(79.9%) either agreed or strongly agreed that children learn the benefits of nature through learning corners whereas the remaining 7(20%) of the facilitators remained uncertain. This may be because they do not utilize nature learning corners in teaching in their classrooms as indicated in Table 4.7 that only 3 (8.6%) out of 35 facilitators who returned their questionnaire utilized nature corners. Ayvacı, Deveciogu and Yigit, (2002) postulated that nature corners in preschool aim to give the child basic information regarding the facts and events related to nature and get the child to gain affective and psychomotor skills and help him/her to understand self and the environment.

Furthermore, the data shows that the majority of the respondents representing 26(74.3%) either agreed or strongly agreed that learning corners such as using wet sand to mould sand into different shapes and objects, use coloured sand to make patterns, or use a fork, small rake or pencil to draw designs in the sand promotes creativity in children whiles 6(17.1%) disagreed to that; the others, 2(5.7%) were uncertain. Likewise, 29(82.8%) of the participants either agreed or strongly agreed that learning corners help children in overcoming challenges but 2(5.7%) of them disagreed that learning corners do not aid children in solving problems with 3(8.6%) were uncertain.

Again the data presented in Table 4.7 indicates that all the facilitators who participated in the study either agreed or strongly agreed that learning corners make children begin to think and learn about things around them. According to UNICEF, Lego Foundation - Learning through Play (2018), when children choose to play and learn in corners, some are not thinking that they would learn from this activity. Yet their interactions with the corners create powerful learning opportunities across all areas of development. Development and learning are complex and holistic, and yet skills across all developmental domains can be encouraged through learning corners.

Once more the table indicates that 3(8.6%) of the respondents who participate in the study disagreed that learning corners influence pre-schoolers to learn how to ask questions and 2(5.7%) were uncertain. Nevertheless, the majority of the participants 30(86%) either agreed or strongly agreed with the statement. Out of the 35 facilitators, 4(11.4%) reported that learning corners do not encourage children to express their ideas and feelings in a relaxed environment unlike their colleagues representing 29(72.5%) who either agreed or strongly agreed to the statement and the others were uncertain. Moreover, aside from 5(14.3%) respondents who disagreed or strongly disagreed, the majority representing 25(71.4%) either strongly agreed or agreed that learning corners develops children's awareness of themselves and others whereas the remaining 5(14.3%) remained uncertain.

It was also revealed from the data in Table 4.7, that participants numbering 30(85.1%) either agreed or strongly agreed that learning corners bring out nurturing qualities in children and 2(5.7%) remained uncertain. Learning corners influencing the development of fine motor skills of pre-schoolers was disagreed by 3(8.6%) of the respondent, 1(2.9%) was uncertain and 21(60%) agreed to the statement.

Additionally, 31(88.5%) of the participants either agreed or strongly agreed that learning corners allow children to act out and make sense of real-life situations whereas those disagreed and were uncertain both 2(5.7%) respectively. Hand and eye coordination were agreed on by 16(45.7%) facilitators as an influence of learning corners on children whereas 12(34.3%) either disagreed or strongly disagreed with the statement and the remaining 7(20%) were uncertain.

As indicated in Table 4.7, the majority of the facilitators who participated in the study representing 16(45.7%) either disagreed or strongly disagreed with the statement, learning corners help children in the development of the sense of touch, through feeling and manipulating objects although 10(28.6%) either agreed or strongly agreed to it and 9(25.7%) remained uncertain. All the facilitators, on the other hand, agreed that learning corners develop the social skills of children as they collaborate with others. On whether learning corners develop communication and language skills, 30(85.7%) either agreed or strongly agreed whilst 5(14.3%) either disagreed or strongly disagreed. 22(62.8%) facilitators either agreed or strongly agreed that children learn to make sense of their immediate world from learning corners whilst 7(20%) either disagreed or strongly disagreed; 6(17.1%) were neutral. Once again, there was a majority of facilitators, 29(82.9%), either agreeing or strongly agreeing to learning corners making children empathetic with others; however 6(17.1%) either disagreed or strongly disagreed with this. 22(62.9%) facilitators either agreed or strongly agreed to the fact that children learn about other cultures with learning corners but 9(25.7%) disagreed and 4(11.4%) were uncertain. Lastly, about 26(74.3%) facilitators agreed that learning corners develop child awareness of themselves and others, with 7(20%) disagreeing and 2(5.7%) remaining uncertain.

When there are different corners in your classroom, the children will be able to experiment with whatever they want. By doing this, they can develop different skills at the same time and they can choose different activities at the same time. This means that every child can develop on their level and pace. Gradually primary and infant schools grew and were viewed in a positive light.

Learning corner is a critical element of the early childhood curriculum. It influences children's social, emotional, physical, and cognitive development. Play allows children to communicate their ideas and feelings and to verify their knowledge of the world. Learning corner is intrinsically motivated, interpreted for its own sake, and conveyed in a relaxed manner providing a positive outcome. Play is free and unconscious. Play activities or their origins have always been integrated with the early childhood education curriculum. (Saracho & Spodek, 2012, p. 2).

4.4 Research Question Three: What are the challenges faced by facilitators in using learning corners in their schools?

This section intended to discover challenges faced by instructors in structuring learning corners in their schools. The scale developed by the researcher that was in line with the literature was used to measure the rate at which the facilitators' response to the questions. It consisted of 8 statements and had a five-point scale such as “Strongly Agree”, “Agree”, “Neutral”, “Disagree” and “Strongly Disagree” with a scoring of 5, 4, 3, 2 and 1 respectively. Based on the total scores, the challenges faced by facilitators in the selected schools were quantified as follows.

Table 4.8: Challenges faced by facilitators in using learning corners in their schools

S/N	FACTORS	SA F(%)	A F(%)	U F(%)	D F(%)	SD F(%)
	I do not have adequate knowledge in using learning corners to teach children in my classroom.	3(8.5)	10(28.6)	2(5.7)	12(34.3)	8(22.9)
2	The homogenous nature of the class I teach is one of the reasons why I don't use learning corners always.	10(28.6)	5(14.3)	-	15(42.9)	5(14.3)
3	The understanding of parents and other facilitators affects the use of learning corners in the preschool classroom.	20(57.1)	10(28.6)	-	5(14.3)	-
4	Large class size affects the use of learning corners in teaching.	10(28.6)	20(57.1)	-	5(14.3)	-
5	There is no continuous professional training to constantly update facilitators' knowledge in the use of learning corners.	20(57.1)	15(42.9)	-	-	-
6	Using learning corners in teaching will make the children overplay in the classroom.	9(25.7)	10(28.9)	-	10(28.9)	6(17.1)
7	Inadequate learning corners materials prevent facilitators from using them in their class.	15(42.9)	18(51.4)	-	2(5.7)	
8	The training I received from the College of Education/ University is not enough for me to effectively incorporate learning corners into my lesson.	10(28.6)	6(17.1)	-	19(54.3)	

Source: Fieldwork Data, (2021).

In discovering the challenges faced by facilitators in structuring learning corners in their schools, data presented in Table 4.8 indicates that 13(37.1%) of the facilitators who participated in the study either agreed and strongly agreed that they do not have adequate knowledge in using learning corners to teach children in their classroom however the majority of the participants, 20(57.2%) disagreed with that and 20(57.2) were uncertain. Also, 15(42.9%) of the respondents either agreed and strongly agreed that another challenge they face is the homogenous nature of the class they teach

which is one of the reasons why they don't use learning corners always but the majority representing 20(57.2%) also either disagreed and strongly disagreed to that statement. Meaning that regardless of the nature of the class, they still teach with learning corners. Furthermore, 30(85.7%) of the facilitators reported that the understanding of parents and other facilitators affects the use of learning corners in the preschool classroom while the remaining 5(14.3%) disagreed. Similarly, 30(85.7%) facilitators either agreed and strongly agreed that large class sizes can affect the teaching of learning corners with 5(14.3%) disagreeing. All the participants who responded to the study agreed that there is no continuous professional training to constantly update facilitators' knowledge in the use of learning corners which is one main challenge facing them in using learning corners.

The data further dwells that 19(54.3%) of the facilitators either agreed and strongly agreed that using learning corners in teaching will make the children overplay in the classroom even as 16(45.7%) disagreed with that. Again 33(94.3%) of the respondents either agreed and strongly agreed that another challenge they face in using learning corners is the inadequate learning corners materials but 2(5.7%) disagreed with that. Finally, 16(45.7%) of the participants either agreed and strongly agreed that the training they received from the College of Education is not enough for them to effectively incorporate learning corners into their lessons whereas the remaining 19(54.3%) disagreed.

The data revealed that despite almost all facilitators using learning corners in their preschools, they face several challenges in using them which may hinder the successful utilization of the corners to achieve their intended objectives. That notwithstanding, the Ministry of Education, Ghana under the Division of Curriculum

Research and Development (2006) maintains the idea that the Ghanaian pre-school curriculum is structured in such a way it recognizes the principles that children at an early stage learn by active exploring. However, implementing areas of the curriculum using learning corners becomes challenging for some facilitators due to the availability of facilities and materials for the setting. Some kindergarten facilitators argue that children are not academically ready for kindergarten because of play-based preschools. They contend that learning corners are like play and too much play, there is not a focus on academics and therefore students are behind on kindergarten curriculum standards (Lynch, 2015).

The public has critiqued kindergarten classrooms because of the academic pressures put on the children (Bowdon, 2015). As a result, some learning corners which includes play has diminished in the kindergarten classroom. Instead of school districts buying art supplies, dramatic play materials, or sand and water tables, they are buying textbooks and workbooks (Bowdon, 2015).

According to Azzi-Lessing (2011), in education, infrastructure provides bases for the rest. Once the deficiencies related to infrastructure occur, this may trigger other problems as well. In the study of Aktan and Comert (2017), one of the sources of problems relating to pre-school curriculum implementation is the facilities available in the school. According to the study conducted by Gundogan (2012), in-service training that school administrators organised is not enough to abreast pre-school facilitators with the current trend of the early childhood curriculum and how to utilize learning corners. According to the study, it was revealed that the type of in-service training pre-school facilitators receive is not from the field of early childhood education. Thus the in-service training that facilitators participated in might not be supportive for them in finding answers for their questions on curriculum

implementation. Cisneros, Cisneros- Chernour and Moreno (2010) in their study revealed that preschool facilitators had a problem in implementing the early childhood curriculum through learning corners because parents had a superficial belief in an early childhood education as a playing ground for the children not as a learning setting and this attitude of parents resulted in obstacle between the school and home collaboration. According to Reid, Stoolmiller and Webster- Stratton (2008), the teaching experience of preschool facilitators can also be problematic in implementing early childhood education practically. The qualitative research data collected on Research Question three were as follows:

In my case, the funds for setting up some of the corners are the main issues, because the school doesn't provide that, neither does the government, so just imagine how I can use that. [F4]

You know I can't use my salary to buy these kinds of stuff for these children. When I buy them today, I have to buy them next time as well. Here is the case that I must use different items for different corners. So I use what the school have already and what I can ask some of the children to bring from home. Aside from that, I can't teach with other corners on which I don't have materials. [F18]

In this school, much emphasis is laid on books, textbooks I mean and workbooks, some learning corners are like a waste of time. They are just like ordinary playing and my headmistress won't allow you to use some corners. There's not much time for that though we use some. [F29]

Some of the children take advantage of that and overplay even if you supervise them. Some are just fun of playing so when some learning corners are introduced, it is like adding fuel to the flame. In this issue, I don't teach with some corners. [F23]

Just as it is indicated in the curriculum, the materials and the funds for setting them up should be included. How do you expect us to teach with that whiles you don't make provisions for that? [F15]

You know, some corners are expensive to set up. Currently, we are still building some and we also had some. Aside from that, not all the corners that some of us know or even know how to teach them. We must be well trained. [F32]

The responses from the participants in the interview indicated that they experience challenges in one way or the other in setting up the learning corner and using them in teaching.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Overview

This chapter of the study presents the summary of findings, conclusion and recommendations of the entire study. The chapter highlights the findings in line with the research questions and objectives. It also gives recommendations to help policymakers, facilitators, government, MOE and other stakeholders in how to mitigate the challenges experienced in the effective utilization of learning corners in preschools.

5.1 Summary of Major Findings

The study adopted a mixed research approach comprising structured questionnaires and semi structured interviews. The major findings under this section are the key issues that have been identified from the data analysed. The summary of findings that were found from the analysis is presented under the specific objectives of the study.

5.1.1 Types of Learning Corners used by Facilitators in the Ga-East Municipality

In finding answers to the research question one on the type of learning corners used in the selected schools of the Ga-East Municipality, it was revealed that, though all the participants who responded to the study stated that they use learning corners, not all learning corners were utilized in their schools. However, the dominant learning corner used by facilitators make-belief / role play corner which allows children to play different roles and test their reactions and responses to different situations was

mostly used by facilitators as it is easily arranged and far less expensive than in setting up than other like the natural corner which involves purchasing of natural objects for building a corner and may sometimes involve interfering with the natural environment with plants and others. In order of utilization respectively, shopping corners followed with sand corners and less dominant was a nature corner which was used by 10(25%) of the participants out of 35(87.5%). Also, it was revealed through the interview that some facilitators used other learning corners such as the art and design corners, physical education corner, music corner, blocks corner, cosy corner, science corner, language corner and game/puzzle corner.

The study further revealed that facilitators utilized various materials in their learning corners such as blocks (plastic or wooden), foam shapes etc., for block corners; Biscuits, sweets, soft drink bottles, milk cartons, etc. for shopping; blankets, puppets, dolls, matrasses, pillows, etc. for the rest corner; rocks, leaves, little wooden sticks for the science and nature corner; books, kamishibai, posters of the letters, alphabet puzzle, pre-writing dice for the language corner among other.

5.1.2 How Learning Corners Influence the Learning Outcomes of Pre-schoolers

In finding answers to the second research question on the extent to which learning corners influence the learning outcomes of pre-schoolers in the Ga-East Municipality, the study revealed that facilitator testifies that learning corners has immersed influence on the development of the children such as children learning to explore, investigate and experiment, learning the benefits of nature, beginning to think and learn about things around them, bringing out nurturing qualities in children, developing social skills as children collaborate with others among others. However, it was revealed in this same section that, few respondents disagreed that learning corners influence children in some ways such as helping children learn about different

cultures; development of the sense of touch through feeling and manipulating objects which was also disagreed by some of the respondents; Hand & eye coordination and developing children's awareness of themselves and others by another few.

5.1.3 Challenges Faced by Facilitators in Structuring Learning Corners

The study finally revealed in finding answers to the third research question on the challenges faced by facilitators in structuring learning corners that, all the participants who participated in the study reported that there is no continuous professional training to constantly update facilitators' knowledge in the use of learning corners and large class sizes as well as inadequate learning corners materials prevent facilitators from using them in their class. It was further noticed from the interviews that there were not adequate materials in some schools to be used to set up the learning corners. Also, some school headmistresses wanted facilitators to use more textbooks in teaching than learning corners. The study also revealed that some facilitators face challenges in using learning corners as they were not trained in such methods.

5.2 Limitations of the Study

The report of the study was based on the self-report of the participants through questionnaires which could represent their subjective views. Even though the researcher attempted to reduce the degree of subjectivity by triangulating data from facilitators, it could not be guaranteed that the information provided in the study was the true reflection of the reality in the schools. Therefore, the findings of the study might not be generalized to all schools and beyond the time of the study since the conditions may change over time. More so, I did not include the private schools because most of the facilitators in private schools are either untrained or retired, and

in the case where they are trained facilitators in active service, such facilitators are part-time from the public schools

5.3 Recommendations

Based on the findings of the study, it was recommended that private proprietors and government authorities overseeing the pre-school program should organize frequent in-service training for both facilitators and parents concerning early childhood education curriculum emphasizing as well on learning corners. This can help to abreast parents and facilitators about the importance of learning corners and other play and its impact on the children's development.

Furthermore another recommendation is that preschools in the municipality be required to meet national standards and regulations, which could put pressure on facilitators and head teachers. In view of this, the researcher recommends that facilitators and head teachers communicate with one another to better understand the curriculum standards and goals. Through communication and collaboration, preschools and kindergartens can understand one another and could show grace towards each other.

Correspondingly, the importance of learning corners in preschools has to be emphasised for the facilitator.in doing so more facilitators would support and add to their teaching creative, effective and efficient learning corners to improve quality of early childhood education.

Moreover, no meaningful teaching and learning can take place without the provision of adequate resource materials. This applies to learning corners utilization and effectiveness as well. This means that for the officially designed learning corners to

be fully utilized and effective as planned, the Government or Ministry of Education should supply schools with adequate resource materials such as materials for setting up learning corners, teaching aids and stationery to enable facilitators and learners to play their role satisfactorily in the curriculum implementation process. The availability and quality of resource material and the availability of appropriate facilities have a great influence on teaching and learning.

5.4 Implications of the Study

The implications of this study have the possibility to assist policymakers and educational leaders in discovering by analysing early childhood facilitators' challenges faced regarding learning corner utilization as well as finding out how pre-school facilitators can overcome those challenges.

5.5 Suggestion for further Research

Due to the limited number of schools in the research in Ga-East Municipality, more comprehensive researches including broad sampling groups should be carried out to determine the current situation. It is believed that this research is a pilot study that will guide the other researchers.

5.3 Conclusion

It can be concluded in the study that even though learning corner was revealed to have good impacts on the preschoolers' development, the inadequate learning corner materials, lack of inadequate in-service training for pre-school facilitators, lack of parental involvement and understanding of learning corners, inadequate pre-school facilitators' knowledge in the early childhood curriculum on learning corners serves as an impediment for successful implementation and utilization of learning corners

among the pre-schools in the Ga-East Municipality. Also, facilitators and inadequate materials are some of the key factors that influence learning corner utilization.

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APPENDIX A

QUESTIONNAIRES FOR PRESCHOOL FACILITATORS
UNIVERSITY OF EDUCATION, WINNEBA

Dear Sir/Madam,

My name is Susana NS Hammond-Atisu, I am exploring the influence of learning corners on the pre-schoolers' learning outcome in early childhood education in the Ga-East Municipality as part of my MEd. programme in the University of Education, Winneba. Attached is a questionnaire on the use of learning corners, effects and challenges faced. Please, respond to the items to the best of your knowledge. Your candid responses will help us understand how these learning corners can effectively help the developmental outcomes of pre-schoolers. Do not allow any friend or colleague facilitator to help you answer them. The information will be treated as confidential and used for academic purposes only. To ensure anonymity, please do not write your name on the questionnaire. Thank you

SECTION A

(Please tick [√] and specify where appropriate)

Section A: Background Characteristics

1. **Gender:**
   a. Male [ ]
   b. Female [ ]

2. **Age range:**
   a. Less than 20 years [ ]
   b. 21-30 years [ ]
   c. 31-40 years [ ]
   d. 41-50 [ ]
   e. above 51 [ ]

4. **Highest Educational Qualification**
   a. Teacher certificate A [ ]

b. Diploma in education [ ]
c. First Degree [ ]
d. Masters [ ]
e. Postgraduate Diploma [ ]
f. Others, specify…….

5. Professional Status

a. Professional [ ]
b. Non-professional [ ]

6. Teaching Experience

a. 1- years [ ]
b. 6 – 10 years. [ ]
c. 11 – 15 years [ ]
d. 16 - 20 years [ ]
e. 21 years and above [ ]

7. Number of years in teaching pre-schoolers

a. Less than 3 year [ ]
b. 3-8 years [ ]
c. 9-15 years [ ]
d. More than 16 years [ ]

SECTION B

TYPES OF LEARNING CORNERS USED IN TEACHING PRESCHOOLERS IN THE GA-EAST MUNICIPALITY

This section of the questionnaire seeks to establish whether you use learning corners and the types of learning corners you use in teaching in your classroom.

PART I

i. Kindly indicate by making a tick [√] in the box appropriately in questions 9 and 10

9. Do you use Learning corners in teaching pre-schoolers?

a. Yes [ ]
b. No [ ]

10. If yes, what type of learning corners do you use?

a. **A nature corner** [ ]
b. **Sand corner** [ ]
c. **Shopping corner** [ ]
d. **Make - belief corner** [ ]

PART II

ii. Below is a table of types of learning corners and some materials to aid in executing them. For each of the learning corners, indicate the materials that you use in teaching any aspect of the corner.

Learning corners	**Materials**
11. A nature corner: It should include natural objects like stones, bones, leaves, dead insects, feathers etc. Here, pupils learn to appreciate and admire the beauty of nature.	
12. Sand corner Psychomotor skills are acquired as Kindergarteners scribble, draw and trace in the sand. It eventually mentors them for actual writing.	
13. Shopping corner With consumable household containers like milo, sugar, soft drinks and items like pencils, erasers, etc. pupils' indirectly learn some arithmetic (addition and subtraction) and language.	
14. Make-belief corner With pictures of professionals like nurses, facilitators, farmers, drivers, police officers etc. pupils develop language skills by imitating or role-playing the above professions	

SECTION C

HOW LEARNING CORNERS INFLUENCE THE DEVELOPMENT OF PRESCHOOLERS IN THE GA-EAST MUNICIPALITY

On a scale of 5 – 1 (5 = Strongly Agree, 4 = Agree, 3 = Uncertain, 2 = Disagree, 1 = Strongly Disagree), please, **rate your views on the following statement by ticking [√] in the column appropriately.**

S/N		Please [√] to rate EVERY option				
		Strongly Agree	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
15	Children learn to explore, investigate and experiment					
16	Children learn the benefits of nature					
	Promotes creativity and imagination – using wet sand to mould sand into different shapes and objects, use coloured sand to make patterns, or use a fork, small rake or pencil to draw designs in the sand					
17	Overcoming challenges – problem-solving					
18	Children begin to think and learn about things around them					
19	Children learn how to ask questions					
20	Encourages children to express their ideas and feelings in a relaxed environment					
21	Develops children's awareness of themselves and others					
22	Brings out nurturing qualities in children					
23	Development of fine motor skills					
24	Allows children to act out and make sense of real-life situations					
25	Hand & eye coordination – watching and doing and coordinating these actions					

S/N		Please [√] to rate EVERY option				
		Strongly Agree	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
26	Sensory- development of the sense of touch through feeling and manipulating objects.					
27	Develops social skills as children collaborate with others					
28	Develops communication and language skills					
29	Children learn to make sense of their immediate world - Children have numerous opportunities to work together, express their feelings, and use language to communicate roles and respond to one another's needs and requests.					
30	Children learn to empathize with others; taking part in a role-play activity would usually mean that you are taking on the role of character which will teach children about the empathy and understanding of different perspectives					
31	Helps children learn about different cultures					
32	Gets children learning more as learning is disguised as play					
33	Develops children's awareness of themselves and others					
34	Children learn simple additions and subtractions					

SECTION D

CHALLENGES FACED BY FACILITATORS IN USING LEARNING CORNERS IN GA-EAST MUNICIPALITY

S/N		Please [√] to rate EVERY option				
		Strongly Agree	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
35	I do not have adequate knowledge in using learning corners to teach children in my classroom.					
36	The heterogonous nature of the class I teach is one of the reasons why I don't use learning corners.					
37	The understanding of parents and other facilitators affects the use of learning corners in the preschool classroom.					
38	Large class size affects the use of learning corners in teaching.					
39	There is no continuous professional training to constantly update facilitators' knowledge in the use of learning corners.					
40	Using learning corners in teaching will make the children overplay in the classroom.					
41	Inadequate learning corners materials prevent facilitators from using them in their class.					
42	The training I received from the training college is not enough for me to effectively incorporate learning corners into my lesson.					

INTERVIEW GUIDE QUESTIONS
FOR PRESCHOOL FACILITATORS

Section 1: Type Learning Corners used by facilitators in facilitator pre-schoolers.

1. What are the types of learning corners used in teaching pre-schoolers that you know about?

2. Which types of learning corners do you use in teaching pre-schoolers in your classroom?

3. What are some of the materials you usually use in executing those tasks? For instance, materials for each type of learning corner you use?

Section 2: How Learning Corners are being used by facilitators in teaching pre-schoolers.

1. Briefly describe how you will use any one of the learning corners mentioned in (1) above to teach any of the topics as provided in the syllabus?

Section 3: Influence of learning corners on the development of pre-schoolers.

1. What are some of the benefits when learning corners are used in teaching pre-schoolers?
2.
3. How has learning corners affected the children you teach in any aspect of their development?

Section 4: Challenges of using learning Corner in preschool classrooms.

4. In your opinion what are some of the challenges associated with the use of learning corners in the teaching of pre-schoolers?