

Addis Ababa University
College of Education and Behavioral Studies
School of Psychology

Quality of Early Childhood Care and Education in
Bole Sub City of Addis Ababa City Administration

By

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Abbreviations

AAEB: - Addis Ababa Education Bureau

EC: - Ethiopian Calendar

ECCE: - Early Childhood Care and Education

ECEC:- Early Childhood Education and Care

ESAA: - Education Statistic Annual Abstract

EFA: - Education for All

ESDP: - Education Sector Development Program

MoE: - Ministry of Education

MoH: - Ministry of Health

MoWA: - Ministry of Women and social Affairs

NGO: - Non Governmental Organizations

UN: - United Nations

UNESCO- United Nations Education, Scientific and Cultural Organizations

UNICEF: - United Nations Children's Fund

Abstract

The purpose of the study was to assess the quality of preschools found in Addis Ababa in Bole Sub-City. The quality domains assessed in this research were the structural quality that predicts the process quality which leads to positive developmental outcome of preschool children. This includes qualification of teaching staffs, teacher-child ratios, and group sizes of children and physical environment of preschools. The core intentions of the assessment were to ensure the status of preschools in maintaining the required quality standard specified by the government and the challenges they encountered in the process of maintaining the required quality norms. Random sampling was used to select preschools. Questionnaires, interview and observations were employed for collecting data. Thirty preschools were sampled and questionnaires were distributed to 30 principals and 120 teachers. Data collected from respondent were analyzed quantitatively through using frequency and percentage, while data gathered through interview and observation were qualitatively analyzed. The findings of the assessment indicated that untrained teachers were found working in preschools. As to the teacher-child ratios and group sizes, the majority of the preschools met the standards. With regard to physical environment and infrastructure lack of outdoor equipment and insufficient outdoor and indoor spaces were identified. Lack of land resources and shortage of trained manpower in the market were among the challenges. Finally, discussion of the findings and conclusions were made with recommendation.

CHAPTER ONE

INTRODUCTION

1.1 Background

Early Childhood Care and Education (ECCE) is a program that promote child's physical, social, emotional and cognitive developments through physical care and educational service provision for children in the child care settings prior to start of formal schooling(Kammerman, 2006; Santrock, 2007). The implementation of early childhood care and educationprogram is becoming a priority both at national and international levels (Woodhead, 2006). The world conference on Education for All (EFA) that was held in Jomiten, Thailand in 1990 with the Dakar framework (2000) shows that more attention was given to the development of children during their early years because it is found that early years of child development is a key to the human development as it lays the foundations for their later lives (Myers, 2004; Woodhead, 2006, UNESCO, 2011; World Bank, 2012: Bose, 2008). The United Nation declared that a child has the right to education and calls on governments to provide assistance to parents (UN-CRC, 1989: ILO, 2012). The ECCE researchers, educators and practitioners view that the period from birth to the age of eight is a critical developmental stage which can be influenced by external environment. They are very much dependent on adults for their physiological, emotional, social and intellectual needs (Aggarwal, 2007).

Researches (Kagan, 1986; Bredekamp et al., 1992; World Bank, 2012) show that investment on young children is becoming an opportunity for the growth and development of a nation. Investing on today's children will be building the future generation who will be the workers, parents, leaders and entrepreneurs of tomorrow, who will emerge with a potential to establish a good governance, sustainable economy and stable political environment of a

country. The World Bank (2012) considered early child development as one of the cost-effective strategies to break a cyclic poverty of generations, to improve productivity and to sustain competitiveness in the future. UNICEF(1990) explained that since today's children are the citizens of tomorrow's world, it requires to empower them with knowledge and resources to meet their basic needs to enable them to grow to their full potential as they are the foundation for the national development. Hence it requires laying a significant foundation for young children in order to enable them to cope-up with a continuously changing technologies and complex social environments as they move towards adulthood.

The preschool is one of the integral components of the ECCE that is mainly focused on the early childhood education that involves the children of age ranges from 3 to 6 years (Paplia et al., 1999). The education program is aimed to promote children's physical, social, emotional and cognitive development through educational service provision at a child care settings in a healthy environment (UNESCO, 2005;Kammerman, 2006; Heron, 1979;Farran, Hoffer, 2011).The care aspect of ECCE refers to the provision of safe and healthy environment to the young children in order to foster the healthy growth and development of children during the provision of educational services (Farran, Hofer, 2011; Heron, 1979).

The preschool or kindergarten program in Ethiopia is a program that is established for the children from 4 to 6 years of age. The program is aimed to promote all round development of a child that includes physical, social, emotional and cognitive developments (Education policy, 1994) through physical care and educational services provision for children in the child care settings.

The beginning of modern type of preschool was introduced in Ethiopia in 1908 (UNESCO-IICBA, 2010; Bizunesh, 1983 cited in Dereje, 1994) in Dire Dawa for the children of French railway workers, however the application of the program at the national level is not yet matured. The investment of the Ethiopian government in the preschool education sector was very minimal and its implementation was fragmentary (Habtamu, 1996; Tirussew, Tezera, 2001). The program was left to the non-governmental organizations (NGO), communities, faith-based organizations, and private sectors (MoE, MoH, MoWA; 2010a/b; SDPRP, 2002; Woldehanna&Gebremedhin, 2012). In 2001/02, only about 109,358 children (about 2%) in 964 kindergarten schools were reported to have access out of the estimated total 5.5 million children of the relevant age group (i.e. 4 to 6 years old, EFA 2015). The enrolment rate at the national level in 2008/2009 was 4.2% (Young Lives 2012; &EFA 2015).

Currently the Ethiopian Government has given due attention to raise the target substantially to increase the number of children to be enrolled in the pre-school. Even though there is a limited national resource the government is committed to invest in the development of children during their early years. Three ministries jointly launched the National Policy Framework, Strategic Operational Plan and Guideline for the implementation of (ECCE) throughout the country (MoE, MoH, &MoWA, 2010a,). The government addresses preschool as Kindergarten (4 to 6+ years) in the policy framework as one of the four pillars (P. 22).

Strategic operational and guidelines for early childhood care and education (ECCE) was developed (MoE, MoH, &MoWA, 2010b) to support the implementation of Policy Framework for the achievement of policy goals and objectives. Strategic work plan, monitoring and evaluation system were indicated in the document to follow-up the implementation process and to ensure the quality of service provision in preschools.

Quality of the preschool is seen as a requisite demand to address children's developmental needs effectively and efficiently as maintaining the quality requirements provides a conducive environment in preschools to support the physical, social, emotional and cognitive development of children (Barnett, 1995; Barnett, 2008). The quality of care and education which children receive in the preschool settings became the focus of attention for researchers because of the critical impacts of early care and education on children's development (Cassidy et al., 2005). The required quality needs to be maintained in ECCE program because it is recognized that good quality care and good quality education result in better child's developmental outcomes while poor quality care and poor quality education results in lower developmental outcomes (Sylva et al., 2006). The provision of quality preschool is the direct investment on the development of human capital beginning at the early period. Heckman (2008) has emphasized that the returns may be higher to investments made early in life than to those made at later ages.

Higher quality preschool setting is found very beneficial for children in having the lasting positive impacts such as greater school success, lower school dropout, higher graduation ratios, lower juvenile crimes, lower in criminal behaviors, lower unemployment, higher earning and lower adolescent pregnancy rates (Gorey, 2001; Myers, 2004; Peisner-Feinberg, 2007). Quality in preschool includes having healthy, safe and protective environments with adequate facilities, material and qualified human resources (Espinosa, 2002). Higher quality is taken as a key factor for cognitive and social developmental outcomes of children (Myers, 2004). Through reviewing numerous studies, Korjanevitch, and Dunifon, (2010), concluded that quality child care centers promotes social, language, emotional and cognitive development of children.

The Ethiopian Government considered ECCE as one of the potential inputs to the overall improvement of quality of preschool education that leads to positive developmental outcome of children in all domains of development. The implementation of quality program in preschools is expected to result in higher rate of enrolments to the next phase of schooling, reduction of dropout and repetition rates in later stages of formal schooling (ESDP IV, 2010/11 to 2014/15). The report of Rossiter(2016) indicated that during the period from 2010 to 2015, the Government of Ethiopia has supported large-scale implementation of preschool education in all areas of the country, via a combination of government, community, nongovernmental(NGO), church and private sector initiatives..

The Ethiopian government has currently established the minimum quality standards(Table 1, p. 38) that should be implemented and maintained by the preschools (MoE, MoH, MoWA, 2010b) in order to provide the services. The defined quality variables are used as a checklist (MoE, 2005, E.C) to re-issue license to preschools however there is no sufficient empirical data about the status of maintaining of the quality requirements by the preschools. As the Policy Framework and the Strategic Operational plan and Guidelines are developed in 2010 there is lack of empirical evidence reported whether the preschools met or exceeded the required standards norm or not (Rossiter, 2016; ESDP IV, 2014/15). Hence it is convincing to conduct research to know the status of preschools in maintaining the minimum quality requirements set by the government.

Accordingly, this research is aimed to assess the status of preschools in maintaining the minimum quality standards defined in the operational guideline (MoE, MoH&MoWA, 2010b).

1.2 Statement of the problem

ECCE is a critical period that requires to pay due attention as it is the time to lay the foundation to build the productive and responsible future generation. It is the time of building young children's holistic development in the physical, social, emotional and cognitive dimensions. Children with supportive environment early in their lives are more likely to develop anti-social behavior later in life (Barnett, 1995. Quality in preschool is usually expressed in terms of structural and process quality that refers to the input side of the preschools and the activities within the preschools respectively (Huntsman, 2008). Research findings in the developed countries indicate that the provision of low-quality care and education have harmful effects on holistic child development which is not easy to improve at later years (Schuler Center, 2012; Peisner-Feinberg et al.2001; Lopez Boo et al., 2016).

Ethiopia is currently paid due attention to early childhood development and has developed the National Policy Framework, Strategic Operational Plan (SOP) and Guidelines for the implementation of quality ECCE program (2010). The growing interest of the government on the implementation of ECCE program and the increased number of preschools brought the question of quality as one of the research agendas for researchers to ensure whether the preschools quality is in compliance with the required quality standard, because poor quality program has the adverse effects on child developmental outcomes (Schuler Center, 2012; Peisner-Feinberg et al.2001; Lopez Boo et al., 2016).

Hence it is becoming necessary to conduct research in the Ethiopian context to collect relevant practical evidences with regard to the structural quality dimensions of ECCE which predicts the process quality that leads to holistic child development. The quality of ECCE in the context of this research considered the children of 4 to 6 years of age enrolled in preschools in Addis Ababa

City Administration in Bole Sub-City. With this understanding, this research attempts to address some of the structural quality variables, which predict process quality, in order to collect pertinent empirical evidences.

1.3 Research Questions

- a) What is the status of Bole Sub-City preschools in maintaining the following structural quality variables:
 - Qualification of teaching staffs,
 - teacher to child ratio, group size and
 - Preschools physical environment
- b) What are the major challenges encountered by the preschools that affect the sustainability the required quality standard stated in the operational guideline?

1.4 Objectives of the study

1.4.1 General objective

This research is amid to describe and explain the role of quality in the preschools with specific to Addis Ababa City Administration in Bole Sub-City for a holistic child development by giving emphases on selected structural quality variables that predicts positive child developmental outcomes.

1.4.2 Specific objective

- To investigate to what extent the quality of qualification of teaching staffs, teacher to child ratio, group size and Preschools physical environment are in compliance with the national quality standards;
- To find out the challenges encountered by preschools to maintain and practices the required quality , and
- To recommend possible corrective measure to improve preschools' quality management programs.

1.5. Significance of the study

As early childhood care and education (ECCE) is a critical period in human development processes, the Ethiopian government paid due attention to children's latter life development, human capacity development, economic and social developments of the citizens. To this effect national policy framework is developed. The strategic operational plan and the guideline have been developed as separate documents to implement the ECCE policy framework. Strategic work plan, monitoring and evaluation framework have been established to follow-up effective implementation of the program.

Hence the significances of this assessment are (a) to provide empirical evidence for the government and preschool owners by evaluating the preschools quality status against the quality standards specified by the government, (b) to bring the findings of preschools challenges to the attention of the interested parties and (c) to provide valuable information as one of the inputs for further study on preschool quality.

1.6. Delimitation

The scope of the study is delimited to some of the structural quality variables which predict the process quality of preschools.

Based on the information obtained from Bole Sub-City Educational Bureau (2009 E. C), there are 149 preschools of which 15 are administered by the government, 4 by faith bases and 130 by private owners. However, due to the financial and time constraint and to appropriately manage the study, the researcher delimited only to 20% (30 preschools) of the total population.

1.7 Limitation

During the process of conducting this study the researcher encountered the following problems which contribute to the limitation of this study:

- Lack of relevant study materials on the subject under study.
- Shortage of information from the Addis Ababa Education Bureau with regard to the follow-up and status inspection reports.

1.8 Operational definition

Early childhood care and Education (ECCE): refers to a comprehensive program for children from prenatal to 7 years of age that encompasses preschool period,

Group size of children: refers to the number of children in each classroom

Preschool: It is interchangeably used with kindergarten in this study that provides education and care to children of 4-6+ year olds.

Quality of preschool: The structural variables defined by the government as a criterion for a preschool to provide care and education services to children.

CHAPTER TWO

2. LITRATURE REVIEW

The intent of this chapter is to review literature related to the early childhood care and education, child's development and preschool quality. The literature was reviewed under the following headings: Theoretical Framework of Early Childhood Development, Historical Background of Early Childhood Care and Education at the global level, Historical Background of Early Childhood Care and Education in Ethiopia, Empirical evidence on the benefit of Preschool, Quality of Preschool in a global and in the Ethiopian contexts.

2.1 Theories of Early Childhood Development

Developmental theories are useful in providing a framework towards understanding how children grow and learn and the means of supporting the courses of their development and learning. There are various theories that have been developed with regard to the development of early childhood, however in this study only some of the major developmental theories, that explain how early intervention can influence the course of child development, are considered and are briefly reviewed.

Bronfenbrenner's (1979, 1989, and 1993) ecological system theory illustrates a child as a creature who is surrounded by four concentric circles which play a significant role in shaping the child's development and behavior. It provides an ecological model for understanding human development. He explains that children's development is best understood within the socio-cultural context of the family, educational setting, community, and broader society (NAEYC, 1996). The ecological system theory explains children's development and learning depends on the social and cultural perspectives. The environment includes parent, siblings,

preschool environment, values and customs of the society in which the child is grown-up (Ume., 2014). The extent of the influence depends on the interaction of individuals with these environments and the duration of the child exposed to the environment in which these processes occur (Peisner-Feinberg,,&Yazejian, 2002).

The first system is the microsystem, which refers to a pattern of face to face interaction activities between the setting and the developing child. The setting includes the physical and material features and people with different personalities and beliefs. Components of the system includes, child's home, school, and peer groups. The second circle is the mesosystem that includes "the linkages and processes taking place between two or more settings containing the developing person."

Erikson who developed the psychosocial theory explained that children will be socially affected positively or negatively based on the child's resolution pattern of the conflict they are facing. According to Erikson the pre-school age is the period a child is moving into the initiative versus guilt conflict stage (Miller, 2011).

The behaviorist or the learning theorist such as Skinner and Bandura believed that the process of rewarding or punishment practices plays an important role in shaping the child's behavior. The behavior that is rewarded will be repeated while the one that is punished will be decreased.

Educationalist and policy makers take these and other developmental theories into account during the development of age appropriate pedagogical policies, guidelines, curriculum, procedures and practices in the educational and caring systems.

Vygotsky, a socio-cultural psychologist who believe that the environment in which a child is grown up influences the developmental pattern of a child. The environment consists of shared values and belief, knowledge, and socialization practices. This can be expressed through preschools and other social routines. He explained further that children's actual developmental levels can exceeded if they are supported by adults. Vygotsky's explanation is quoted by Miller (2011, p.175) which states that learning awakens a variety of internal developmental processes when the child's interacts with adults and peers in his/her environment. Vygotesky emphasized the importance of school and adults scaffolding support as the way of transforming children's developmental domains.

2.2 Historical Background of Early Childhood Care and Education at the Global Level

Different individuals expressed their concern about children's education and care in the early years and some of them are discussed by McCarthy (1980). Johann Pestalozzi (1746-1827) is one of them who are considered as a pioneer of early childhood education and care in Europe mainly for the children of poor families to improve their lives. He was convinced that children would learn most effectively as they directly interact with the environment and with each other to improve their cognitive capacity if they are helped by adult. He believed further that if the learning process is supported by practical activities, the children would be benefited in acquiring skills. He experienced his conviction by keeping 80 orphaned children during the Napoleon war in Europe.

Fredric Wilhelm Froebel (1782-1852) is another rperson, discussed by McCarthy (1980) and More Mueller (2013). , who is a pioneer in attempting to create early childhood program .He was the first to open kindergarten (the garden of children) in Germany in 1873. His

kindergarten system spread both in Europe and in America and still in use even today. He rejected the notion that children are small adults and to be treated as adults are treated. Instead he promoted that children needs protection. He was very much concerned about the moral development of children and their early experiences because he believed that a child's early experiences have an effect upon the development of an adult personality. He proposed that play is an important activity for the optimum development of a child and most of the toys that are popular today are attributable to Froebel.

According to Kamerman's (2006) discussion much of the European and American Kindergarten and nurseries were established in the 19th century based on Froebel, Pestalozzi and Montessori. At the early stage, kindergarten was assigned for education while nursery was to provide care for children. The document explained further that it was in 1946 in which ECEC was recognized as an important issue in the memorandum submitted to the UNESCO conference. It integrated both the education and care aspects especially to provide services for working mothers. In 1971 to 1972 the preschool or the pre-primary education was included in the UNESCO program for the first time to provide assistance. In 1974 the Psychological Development of children, from 0 to 6 year olds, such as social, emotional, cognitive, physical and moral developments were endorsed by UNESCO, as an ECEC program (Kamerman, 2006). The increment of the development of the ECCE service centers in the developed countries was based on the rising rate of the mothers joining the labor force and the society's recognition about the value of children's development in a group.

In developing countries such as Africa, mothers are usually at home or at farming sites with their children and the need of having service centers were not an issue during the previous years. According to the Education for All, Global Monitoring Report (2005), the driving factor

is increasing the demand for ECEC programs in many developing countries. There are evidences that these programs lead to enhanced school performance including better school attendance, lower rates of class repetition, lower dropout rates, and stronger literacy and numeracy skills (Kamerman, 2006.). In Africa ECEC is still viewed as a luxury and left to families and communities responsibilities and investments in ECEC not viewed as important.

2.3 Historical Background of Early Childhood Care and Education in Ethiopia

The population of the African continent is classified as a poorly educated with poor income, technologically backward, sick and malnourished society who lives a meaningless life (UNESCO African Region, 2010). The report stated further that, unless the African leaders are committed to invest in the human development, particularly on the children's within the age groups from 0 to 8 years, the vision of the developed Africa will continue to remain as vision without practicing it (UNESCO, 2010, pp. 3 to 4). With regard to the implementation of the ECCE program in Africa, Sub-Saharan African countries in general are lagging behind in which Ethiopia is the lowest of all. The same report summarized the causes for being lagging behind as;

- Poor quality of infrastructures and materials;
- Scarcity of qualified teachers;
- Absence of common programs or curricula, and
- The absence of monitoring and evaluating system to rate their performance against the

given norm.

With regard to the historical background of early childhood care and education (ECCE) in Ethiopia, UNESCO (2010) reported that the concept of ECCE dated back to the 17th century

Ethiopian philosopher Zariayaqob and his disciple WaldaHaywatwhile others associated its development to religious education given to children at the age of four in which children learnt alphabets in church services in the medieval Ethiopia.

The first modern kindergarten in Ethiopia was established in Dire Dawa in 1908 for the French community who were involved in the construction of railway road (UNESCO, 2010; Bizunesh, 1983 cited in Dereje, 1994; Mwamwenda, 2014). However the trend was not continued but the churches and the mosques played a major role before the secular education system is developed.

In 1962 the Ministry of National Community Development and Social Affairs started preschools in the form of project which were staffed by the Swedish and American volunteers (Orkin, 2012).Mwamwenda, (2014) also explained that the turning point in early child education in Ethiopia is started in 1981 as the government established the Ethiopian Children Commission whose primary function was to care and education of children.

The Education and Training policy (1994) states that kindergarten education is aimed to provide all round development of children to prepare them for formal schooling, however it is not considered as a compulsory and the quality issue with regard to kindergarten is not addressed. In order to address different problems with regard to early childhood education and care the government of Ethiopia has started to raise the target substantially in spite of limited resources.

Currently the Ethiopian Government has given due attention and recognized the problem and committed to raise the number of children to be enrolled in the preschool. The commitment of the government is shown as the Ministry of Education (MoE), the Ministry of Health (MoH)

and the Ministry of Woman Affairs (MoWA) (2010) jointly launched the National Policy Framework, Strategic Operational Plan and Guideline for the implementation of Early Childhood Care and Education (ECCE) throughout the country. The objective is to promote and support children's physical, social, emotional and cognitive developments through the provision of quality ECCE service. The operational guideline outlined the preschool quality standards to promote quality of preschool.

According to the Guideline (MoE, MoH, & MoWA, 2010b, p.9), kindergarten service delivery will be through the following modes:

- Community based preschools owned and managed by the community;
- Private preschools owned and managed by private entrepreneurs;
- NGO preschools owned and managed by NGO's
- Special community based preschools like Iddir-based preschools owned by low-income communities in informal settings;
- Union and Cooperative based preschools owned and managed by the union and Cooperative community;
- Family and neighbourhood preschools owned and managed by the family/neighbourhood

In Ethiopia the issues of early childhood care and education is one of the neglected sub-sectors and was not considered as part of the basic education and was not compulsory (MoE, MoH and MoWA, 2010a; UNESCO, 2006; Orkin, Abebe, Yadete and Woodhead, (2012). Preschools are neither compulsory nor integrated into the regular primary school system is the other side of the problem. The involvement of the government is very minimal. As a result, very few children

have been able to access them. The role of the government was to provide supervision support; hence the issue of quality of preschool was not the major priority.

According to the 1994 Education Statistics Annual Abstract report, the Government does not involve in running the preschools. It is left to non-government organization, communities, private sectors, faith based institutions and others. The role of the Government is providing training to teachers and supervision support for monitoring. The UNESCO (2006) survey report also indicated that the coverage and access to pre-school for children 4 to 6 year olds is only 2.1 percent (2.1%) out of the total children within the stated age ranges at the national level. Besides the service available for this age group is fragmentary and uncoordinated (ECCE Policy framework, 2010).

Habtamu (1996) also explained that the public resources allotted for the preschool education is very minimal which demonstrated that due attention is not given to this subsector of education and the government seems not well aware of the criticality of the early year of intervention. He stated further that most of the existing kindergartens are owned and run by individuals as a profit making business.

Currently the Ethiopian Government's concern about ECCE is shown as three ministries in 2010 jointly launched the National Policy Framework, Strategic Operational Plan and Guideline for the implementation of Early Childhood Care and Education (ECCE) throughout the country. The objective is to promote and support children's physical, social, emotional and cognitive developments through the provision of quality ECCE service. Quality of preschool is discussed in the context of ECCE because it is one of the four pillars addressed in the ECCE policy document. The Ministry of Education considered ECCE as one of the potential inputs to the

overall improvement of quality of education that will reduce drop out and repetition rates in later stages of formal schooling and leads to higher rate of enrolments (ESDP IV, 2010/11 to 2014/15). The policy and the operational guideline outlined the preschool quality standards to promote quality of preschool.

As preschool is one of the integral components of ECCE, the subsequent discussion focuses on different characteristics of structural and process quality of preschool by considering their indicator variables.

2.4 Quality of Preschool

Preschool school quality is frequently defined in terms of two interrelated terms called Structural quality and Process quality for child development (Umek,2014 ;Hofer 2008; Howes et al., 2008;Pianta et al., 2005; Thomason & La Paro, 2009).

In order to be effective and efficient in achieving physical, social, emotional and cognitive developmental outcomes of children, the delivery service in the preschools needs to be of high quality. A lot of researchers and early childhood professionals put their attention on the influence of early childhood education in a preschool. It is agreed that preschool quality programs have both short and long term influences. The provision of high-quality service in pre-school fosters the development of children and enabling parents to participate in the labour force with confidence.

Quality is associated with ECCE because it is recognized that good quality care and good quality education result in better child's developmental outcomes while poor quality care and poor quality education results in lower developmental outcomes of children (Sylva et al., 2006). The academic and policy makers recognize that high quality programs are an important way to help children to reach their full developmental potential (Whitebook, 2003).

Research survey study data indicated that there are positive relationships between child care quality in preschool and children's longitudinal outcomes from pre-schools through elementary schools (Peisner-Feinberg,&Yazejian, 2002). Researchers (Peisner-Feinberg, 1999,) on the preschool child care have concluded that high quality child care is an important element in achieving the national goal of having all children ready for school. Children who attended higher quality child care centers performed better on measures of both cognitive and social skills in child care and through the transition into school. The longitudinal research study conduct in the 1960s in America evidenced that the children who participated in the High/Scope Perry preschool project committed fewer criminal acts, lower criminal arrests in the later year as compared with non-participant groups (Yoshikawa, 1995). Numerous studies have shown that high quality preschool has beneficial effects on positive development in social, emotional and cognitive (Slot et al., 2015).

According to the National Institute of Early Education Research (NIEER, 2011) , a preschool program is said to be quality if the following ten quality standard benchmarks are fulfilled: 1) comprehensive learning standards, 2) teachers with bachelor's degree, 3) teachers with specialized training in early childhood, 4) assistant teachers with a child development associate credential, 5)teachers in-service training of at least fifteen hours per year, 6) maximum class size of twenty, 7) staff to child ratios of at list 1 to 10, 8)vision, hearing, and health referral services, 9) provide at least one meal per day and 10) suitable site.

In Ethiopia the issues of early childhood care and education is one of the neglected sub-sectors and was not considered as part of the basic education and was not compulsory (MoE, MoH and MoWA, 2010a; UNESCO, 2006; Orkin, Abebe, Yadete and Woodhead, (2012). Preschools are neither compulsory nor integrated into the regular primary school system is the other side of the

problem. The involvement of the government is very minimal. As a result, very few children have been able to access them. The role of the government was to provide supervision support; hence the issue of quality of preschool was not the major priority.

According to the 1994 Education Statistics Annual Abstract report, the Government does not involve in running the preschools. It is left to non-government organization, communities, private sectors, faith based institutions and others. The role of the Government is providing training to teachers and supervision support for monitoring. The UNESCO (2006) survey report also indicated that the coverage and access to pre-school for children 4 to 6 year olds is only 2.1 percent (2.1%) out of the total children within the stated age ranges at the national level. Besides the service available for this age group is fragmentary and uncoordinated (ECCE Policy framework, 2010).

Habtamu (1996) also explained that the public resources allotted for the preschool education is very minimal which demonstrated that due attention is not given to this subsector of education and the government seems not well aware of the criticality of the early year of intervention. He stated further that most of the existing kindergartens are owned and run by individuals as a profit making business.

Currently the Ethiopian Government's concern is shown as three ministries in 2010 jointly launched the National Policy Framework, Strategic Operational Plan and Guideline for the implementation of Early Childhood Care and Education (ECCE) throughout the country. The objective is to promote and support children's physical, social, emotional and cognitive developments through the provision of quality ECCE service. Quality of preschool is discussed in the context of ECCE because it is one of the four pillars addressed in the ECCE policy

document. The Ministry of Education considered ECCE as one of the potential inputs to the overall improvement of quality of education that will reduce drop out and repetition rates in later stages of formal schooling and leads to higher rate of enrolments (ESDP IV, 2010/11 to 2014/15). The policy and the operational guideline outlined the preschool quality standards to promote quality of preschool.

Even though the term quality has been used for many years in the literatures of early childhood education, there is no universal agreement on the definition of quality, as the result it has been conceptualized differently and assessed in a variety of ways. According to Dahelberg et al., 1999, the variables of the quality of preschool cannot be considered as universal but it is a context dependent. The environment in which the preschool is operating makes difference, hence the preschool quality cannot be considered in isolation as a separate phenomenon. Taking the Bronfenbrenner's (1979, 1989) ecological system into consideration, there are interdependent environmental conditions that determine the quality of the given preschool. Quality factors of the microsystem sphere can be directly or indirectly affected by the factors of mesosystem, exosystem and macrosystem spheres. Since variables in the stated spheres are not similar in the world, the combination of these quality factors could be the causes of variations of qualities of preschools among different nations (Vonta, 2000). Hence quality is said to be relative that depends on the context of the existing environment (Dahelberg, et al., 1999).

2.5 Empirical evidences on the benefits of Preschool quality

The longitudinal research studies conducted on early childhood education and care settings at different parts of the world with different economic and political background evidenced that the experiences of children in the preschool of high quality services

had positive long-term effects in children's developmental outcomes even though the benefits are not similar (Vallberg-Roth, 2015).

UNESCO (2012) reported that studies conducted in developing countries such as China, Chile, Brazil, India, Mozambique, Bangladesh and Madagascar, with regard to the contribution of preschool, show positive effects on child development and subsequent school performance. Especially children from the disadvantaged backgrounds were found benefited from the preschool participation.

Research study, based on parents' survey data, found that there are positive relationships between child care quality in pre-school and children's longitudinal outcomes from pre-schools through elementary schools (Peisner-Feinberg, & Yazejian, 2002). Researchers (Peisner-Feinberg, 1999,) on the preschool child care have concluded that high quality child care is an important element in achieving the national goal of having all children ready for school. Children who attended higher quality child care centers performed better on measures of both cognitive and social skills in child care and through the transition into school.

The longitudinal research study conducted in the 1960s in America evidenced that the children who participated in the High/Scope Perry preschool project committed fewer criminal acts, lower criminal arrests in the later year as compared with non-participant groups (Yoshikawa, 1995). The study conducted in Norway on the effect of preschool on the school performance of children from the immigrant families, it was found that a higher academic achievement was observed by those who participated in the preschool than those who did not (Drange & Telle, 2010).

The Abecedarian project of North America is one of the notable model programs to provide a high quality educational service to children of at risk beginning in the 1970s. It is

found that children who had participated in the project had stronger academic achievement during their later life and enrolled in the four (4) year college program and became skilled employees (Barnett &Hustedt, 2005). The Chicago Child-parent center is another example that provides evidences that children who participated in the center had positive long-term outcomes across wide range developmental domains that resulted in lower rate of juvenile arrests and higher rates of educational attainment (Barnett &Hustedt, 2005).

The studies conducted in the Western Europe (French, Britain and Germany) evidenced that participation in preschool program provides an opportunity for children to have strong positive long term effects on children's school readiness and academic achievement (Spence, 1995). A longitudinal study conducted in South Korea, Singapore and Japan evidenced that children with the preschool experience had better cognitive, socio-emotional and cognitive developments (Boocock, 1995).

Even though the preschool provision systems are not similar to that of the developed world, there are experiences in the developing countries such as Colombia, Latin America, and India. The longitudinal evaluation of the preschool attendants in these countries showed that they had more favourable results on variety of child's development (Boocock, 1995).

Barnett (1995) explained that the effect of participating in high quality ECCE program for the children from low income families showed higher academic achievement, grade retention, high school graduation and socialization. Young Lives longitudinal survey inEthiopia (Woldhana, 2011) come up with the result that attendance of preschool associated with children's positive cognitive development.

As per the research findings of Eshetu (2014) in Ethiopia atDessie, the students with the preschool experiences are found to have higher academic achievement than those without

preschool exposure which is in agreement with the research findings in the developed countries. The investigation made by Berlinski, et al., (2006) in Argentina on the effect of Pre-primary Education / preschool on Primary School Performance showed that children participated in pre-primary school/preschool had a higher academic achievement and their self-control was positively affected.

Despite the growing body of evidence that the participation of children in preschool creates a great opportunity to reduce poverty and to build healthy society in the developing country, the progress towards the achievement of the desired level is low in Africa particularly in the Sub-Saharan region which is 17% (UNESCO, 2012; AU Education Outlook Report, 2014). The AU report stated further that the future of the Africa continent will be directed by the extent to which the countries are able to provide access to quality ECCE services. The UNESCO report (2012) stated that increasing equitable access to good quality preschool program can play a significant role in supporting children success in primary school. The AU report (2014) document explains that if Africans do it right now, the future outlook will be good, but failure to make the investments, it will be a costly investment to develop human resource in the later years which is in agreement with the Heckman (2012) economic analysis.

2.6 Evidences on the relationship between Structural quality and Process quality

Literatures have defined preschool quality with the help of structural and process quality indicators. Process quality refers to the child's daily experiences in the ECCE setting that includes social emotional and physical activities with teachers, peers and materials. Such activity conditions promote children's development in physical, emotional, social and cognitive aspects of child's development (Umek, 2014; Ackerman, D.J., 2003; Vandell& Wolf, 2000).

The structural quality indicators are important process quality predictors (Umek, 2014). D. Cryer et al. (1999) carried out a comprehensive cross-cultural research study in developed countries that examined the relationship between structural and process quality indicators. Even though the strength of the relationships between the two varies in the countries considered, they confirmed that structural quality predicts process quality. Other researchers also confirmed that structural quality variables are indirect predictors to child outcomes through their influence on process quality (Espinosa, M.2002, Vandell & Wolf 2000, Howes and Smith, 1995, Vonta, 2000).

Cassidy et al.(2005) stated that structural aspects of quality are strongly related to process quality measures and are valid and reliable child care quality (p. 3) . The same document stated further that the relationship between the structural and process quality variables have been documented in many studies referenced by the authors (Howes et al.,1992; NICHD-ECCRN 1996; Phillipson et al,1997; Whitebook,Howes & Philips, 1989 cited in Cassidy et al.,2005) Structural quality provides a context for process quality and indirectly influence the quality of care and education that children receive (Cassidy et al.,2005).Cassidy et al.,(2005) confirmed that the relationship between structural and process quality and child outcomes has also been well documented in the literature. NICHD- Early Child Care Research Network (2002) also documented the relationship between structural and process quality and child outcomes. Different authors found that structural quality directly affected process quality, and process quality in turn influenced children's outcomes(Cassidy et al., 2005).

To support the argument about the relationship between structural quality and the process quality, some empirical evidences are discussed below by considering some of the structural quality variables. This includes a) teacher's education, b) teacher- child ratio and group size.

2.6.1 Teachers' qualification:

2.6.1.1 Teachers' education

Buell and Cassidy's (2001 cited in Laferney, 2006) research review evidenced that teachers with college degree demonstrated more positive behaviors such as sensitivity to children and fewer negative behavior such as harshness and detachment. In addition teachers' education in early childhood provides them with greater knowledge and skills to use in an interaction with young children of preschools (Laferney, 2006).Howes (1997; cited inSmith, 2005) and NICHD-ECCRN (1999) found that teachers with bachelors degree in ECEC had children who exhibit better cognitive development.

Ruopp et al. (1979) found that teachers' education in the area of child development and learning was associated with higher quality environment for positive child developmental outcomes. Whitebook et al. 1989 (cited in Balock, 2007) also indicated that teachers with formal education of the college degree demonstrated the most appropriate and sensitive care giver behavior as measured by Arnett's (1989) caregiver interaction scale (CIS).Numerous studies support that high level of teachers formal education in the area of early childhood development is strongly correlated with high quality teacher-child interaction and better process quality in the classroom environment (Balock, 2007).

2.6.1.2. Teachers' pre-service training

One of the means of promoting child development in preschool is equipping the working staffs with the knowledge of child developmental theories and practices through the provision of pre-service training. Various studies indicated that child care providers who have received

greater amount of pre-service training were found to provide quality environment in preschools that predicts better process quality (Balock, 2007).

2.6.1.3 In-service training

In-service training is sometimes called professional development which may not lead to academic diploma or degree (Maxwell et al., 2006). Having the chance to participate in the in-service training helps teaching staffs to have more skills and competencies that can foster improved classroom teacher-child interactions.

Training in early childhood in-service context with regard to activities specific to ECEC program usually take place outside the formal education system to provide skill building on the job (Maxwell, 2006, Martinez-Beck & Zaslow, 2006 cited in PROFESSIONAL). Such opportunity provides a means for further professional growth to stay in current best practice for the improvement of teacher child-interactions in a classroom environment (Moore, 2000; cited in Laferney, 2006,).

2.6.2 Teacher-child ratio and group size

Research indicated that a small child to teacher ratio during preschool is associated with high developmental outcomes of children (Childcare Resource and Research Unit n/d; Barnett et al., 2004).

It is found that if child: teacher's ratio is lower, it gives teacher's an opportunity to spend less time to manage the classroom, enable teachers to have sufficient time to interact with young children and offer more stimulating and supportive care to the children. This will enable a

teacher to segregate between those who need more support than others (Espinosa, M.2002, Fiene, R., 2002). Different findings explained that lower ratio gives an opportunity for the children to initiate and participate in conversation with their teachers more frequently and show less hostility in interactions with peers and result in better social development. Vandell and Wolf (2000) found that lower child per adult in the preschool period are found to be associated with higher performances.

Cannon (1966) explained that group size needs to be small to provide quality learning conditions for all children, to move freely between them, to help the slow learners and to encourage gifted ones. Being smaller in number will enable them to relax and create helpful atmosphere among the group. Barnett et al., (2004) stated that research indicates that in the classroom with smaller group and lower child staff- ratio create an opportunity for teachers to provide stimulating, responsive, warm and supportive interactions that enable them to meet children's developmental needs. If the number of children is lower, teachers will have the time to observe each child's interest and activities that reveals both the strength and weakness sides of the children.

If the classroom is overcrowded it is difficult both to provide quality services and to manage appropriately. The research (Cannon, 1966) disclosed that in a classroom of large number more aggressive acts such as pushing, moving unsteadily and striking are observed. The study carried out by different researchers (Keliher, 1996 and Cannon, 1996) found that in large class size, there were more aggressive acts, high level of frustration and fewer opportunities for a teacher to guide children individually. Such environments affect the quality of preschools and hampered proper interaction between teachers and children. On the other hand the same document stated farther that in small group size it is found easy for the children to make friends, and were more patient and helpful to one another and a teacher will be able to guide,

direct, assist and listen to children and the quality of classroom was much higher. Such environment promotes socio-emotional development of children.

When groups are smaller, teachers tend to have more positive, supportive, and stimulating interactions with children. Smaller group size is associated with more developmentally appropriate classroom activities than larger group size. Having a maximum number of children per staff member is necessary if ECEC settings are to adhere to the important developmental objectives, and for ensuring that each child has sufficient time for regular and ‘meaningful’ interaction with adult caregiver (OECD, 2006; Pianta et al., 2009).

Studies also found that fewer child to teacher ratios provides opportunities to more child-initiated activities than teacher- initiated activities with more teacher-child interactive activities (Palmerus, 1996), more cooperative behavior, and more social interaction with adult and peers (Ruopp, 1979

Studies suggest that higher child–staff ratios may also increase the work burden for staff, leading to lower quality interactions, lower job satisfaction and the associated problems discussed above. In addition, the increased individual attention afforded by lower child–staff ratios directly contributes to the child’s social and linguistic development and may help staff to more easily identify and tackle the early signs of special behavioral or educational needs (Pianta et al. 2009).

Barnett et al., (2004) stated that research indicates that in the classroom with smaller group and lower child staff- ratio create an opportunity for teachers to provide stimulating, responsive, warm and supportive interactions that enable them to meet children’s developmental needs. If the number of children is lower, teachers will have the time to observe each child’s interest and activities that reveals both the strength and weakness sides of the children.

2.7 National Quality Standard

As quality is subjective and relative (Dahlberg, Moss and Alan, 1999), the Ethiopian government has identified its own preschool quality indicators. The quality norms are provided both as a strategic operational guideline (MoE, MoH&MoWA, 2010b) and as a checklist (MoE, 2005 E.C) for issuing license to the preschools. Detailed quality areas to be addressed and the minimum quality standards to be maintained by a preschool are discussed in these two documents; however this study mainly focused on the quality indicators with regard to the requirement of professionally qualified preschool teaching staffs, the ratio of teacher to children and group size of children and physical requirements of preschool which need to be in place. These quality indicators can be regulated by the government body. Research in developed countries suggests that these quality indicators are predictive of process quality and is likely to be better when these quality standards are maintained by the preschools (Smith, 2005).

The minimum national quality standards are generally regarded as the standards below which no service provider should fall. This research is concentrated on the following quality variables:

- Qualification of teachers
- Teachers-child ratio and group size and
- Physical environment and infrastructure

2.7.1 Qualification of Teachers

Teachers are responsible to create conducive and friendly environment for the healthy and holistic development of the preschool children. In order to bear their responsibilities, they need to be equipped with the theoretical and practical aspects of child development. They must

attend the specific training course and have certificate offered by the Teacher Education and Training Institute. Assistant teachers are expected to hold Health Assistance certificate besides other skills.

It is evident that children present themselves to preschool teachers with many differences in their cognitive, social, physical, and motor skills backgrounds (Bowman, et al. 2001). Based on what each child brings to preschool, teachers will devise developmentally appropriate methods to promote learning to meet the needs of children. In order to manage these differences in the service provision in the preschool environment, teachers require to have high quality of professionally developed skills and competencies related to the pedagogy for young children's learning and in the theoretical and practical aspects of child's development. The professional development of teachers is related to the quality of early childhood preschool programs, and program quality predicts developmental outcomes for children (Bowman, et al., 2001). The professional development of teachers will enable them to develop warm and respectful relationships with children and competent to create positive environment that encourage children's active engagement in learning program to achieve the desired outcomes.

Teachers' qualifications and experiences in working with children are among the required qualities for teaching in preschools. In order to have the required behaviour and to provide effective interactions with children in preschools, it requires having a qualification that related to early child childhood education and development to meet the needs of children through creating high quality preschool environment (Ackerman, 2003)

Generally teachers' formal education, teachers' previous work experiences with children, teachers' continuous professional development and training in the areas of children's development and education enable them to deliver the quality services in preschools. The

educational level of preschool teachers' qualification in the majority of the EU and OECD member states is degree or BA graduate from universities or higher institutions (Ackerman, , 2004; Bowman, et al., 2001; Barnett, 2004). According to Ackerman (2003,p.4) fifty states of the United States of America require a minimum of Bachelor's degree to be a teacher in kindergarten schools (Ackerman, 2003).

Better educated teachers are assumed that they have more knowledge and skills they can offer. According to this assumption, they have larger vocabularies that will enable them to equip young children, they are better problem solvers when they encounter challenges in the classroom, properly manage their time and will spend more of their times in conducting rich learning activities that addresses the needs of children in a productive manner. They are also assumed that they know how to build relationships with the families and involve them in children's education and follow-up children's development systematically (Barnett, 2003;Espinosa, 2002, Vandell& Wolfe, 2000, Korjenevitch&Dunifon,2010).

Most research indicates that higher level of teachers' education is linked to classroom quality for children's outcomes. Different research findings indicated that there is a direct relationship between teachers' level of formal education and their interaction behaviors such as sensitivity, responsiveness, less punitive, and warmth with children (Kontos et al., 2002; OECD, 2005 &2006).

Professional reviewers of the quality of preschool recommend that, preschool teachers needs to have the followings skills and competencies (Bowman, et al., 2001; p. 14):-

- Knowledge of teaching and learning and child development and how to integrate them into practice.

- Knowledge of effective teaching strategies, including organizing the environment and routines so as to promote activities that build social-emotional relationships in the classroom and.
- Knowledge of subject-matter content appropriate for preschool children and knowledge of professional standards in specific content areas.

According to the Ethiopian context (MoE, MoH&MoWA, 2010b, p.57), teachers and assistant teachers who are responsible to support the learning and the development of children in preschool must have the following qualities:

- Knowledge and skills related to holistic child development;
- Ability to work well with children, parents and others in the preschool setting;
- Commitment to enhancing the development of young children;
- Love and respect for all children regardless of their culture, ethnicity, family beliefs and practices or any other differences;
- Be advocate of the rights and protection of the child.

The minimum requirement for a preschool teacher is 10th grade complete with a 10 months preschool teacher training course certificate. Teacher Training Education Institute. Assistant teachers must have reached grade 8 to 10 and holds a Community Health promoters or Health Assistant certificate with special attention to early child stimulation (MoE, MoH&MoWA, 2010b).

2.7.2 Teacher-to-Child Ratio and Group Size

Child to teacher ratio refers to the number of children assigned to a single teacher with responsibilities. It is one of the significant determinants of features for the proper development of children in a preschool. Research indicated that a small child to teacher ratio during

preschool is associated with high developmental outcomes of children (Childcare Resource and Research Unit n/d; Barnett et al., 2004).

It is found that if child to teacher's ratio is lower, it gives teacher's an opportunity to spend less time to manage the classroom, enable teachers to have sufficient time to interact with young children and offer more stimulating and supportive care to the children. This will enable a teacher to segregate between those who need more support than others (Espinosa, 2002; Fiene, 2002).

Group size or class size refers to the number of young children per classroom (Ferns, Friendly, & Prabhu, 2009). Cannon (1966) explained that group size needs to be small to provide quality learning conditions for all children, to move freely between them, to help the slow learners and to encourage gifted ones. Being smaller in number will enable them to relax and create helpful atmosphere among the group. Barnett et al., (2004) stated that research indicates that in the classroom with smaller group and lower child staff- ratio create an opportunity for teachers to provide stimulating, responsive, warm and supportive interactions that enable them to meet children's developmental needs. If the number of children is lower, teachers will have the time to observe each child's interest and activities that reveals both the strength and weakness sides of the children.

If the classroom is overcrowded it is difficult both to provide quality services and to manage appropriately. The research (Cannon, 1966) disclosed that in a classroom of large number more aggressive acts such as pushing, moving unsteadily and striking are observed.

When groups are smaller, teachers tend to have more positive, supportive, and stimulating interactions with children. Smaller group size is associated with more developmentally

appropriate classroom activities than larger group size. Other study (Allen & Kickbush, 1995) found that reduced class size was associated with fewer behavioral problems and classroom management. It is also found that group of 18 children or fewer preschoolers are more likely to engage in the developmental activities than children in a group that exceed this number (Fiene, 2002). Therecommended group sizes forcenter based are 16 and 20 for 4 to 5 and 6 to 8 year olds children respectively (Fiene, 2002).According to the OECD countries agreement, the benchmark for group size is 24 for preschool (UNICEF, 2008).

Different countries have developed their own standard norms with regard to ratios and group sizes. The US National Association for the Education of Young Children (NAEYC) recommends 1:8 to 1:10 ratios (4 to 5 year olds), 16 to 20 for group sizes). The National Institute for Early Childhood Education Research (NIEER, 2007: 26) states the class size to be 20 and ratio not more than 10 per teacher. UNICEF's benchmark (2008) for ratio is a maximum of 1:15 and group size of 22 to 24 with two adults. According to the Organization for Economic Cooperation and Development (OECD) countries agreement, the benchmark ratio for preschool is 15:1 for children 4 to 5 year olds (UNICEF, 2008).Another source indicated that child: staff ratios for center based are 8:1 and 10:1 for 4 to 5 and 6 to 8 year olds of children respectively (Fiene, 2002).

In Ethiopia the quality standard with regard to teacher-child ratio is a maximum of 1:30 and 1:40 for the 4-5 and 5-6 year olds respectively. As to the group size, the maximum number of children per classroom is 40 for one teacher and one assistant (MoE, MoH&MoWA, 2010b).

2.7.3 Physical Environments and infrastructure

It is found that the environment in which a child grows up has a powerful impact on how the child develops (Bowman et al., 2001). The learning environment needs to motivate and

invite children so that they are encouraged to explore all possibilities (NCCA, cited in French, 2007). This quality area focuses on the physical environment at the preschool which provide diverse range of experiences for promoting children's learning and development.

The physical environments of preschools need to be safe, protective and healthy to provide various ranges of experiences to promote the developmental needs of young children. The physical environment and infrastructure of preschool refers to a) location of a site, b) indoor and outdoor spaces, c) play equipment and materials, d) classroom arrangement and e) sanitation and safety environment.

The location of a preschool needs to be safe and secure as well as school friendly. It should be attractive, pleasant and physically safe for children (MoE, MoH & MoWA, 2010). It is required to be a site with a good transportation access, away from garbage sites, open ditch drainages, garage, high traffic areas and away from public service areas such as hotel, restaurant and cafeteria so that the preschool location is safe and conducive for children (MoE, 2005 E.C). Outdoor and indoor spaces must be sufficient and are organized in such a way to engage every child to quality activities and experiences. The outdoor space needs to be sufficient enough for children to play that will enable the children to enhance their motor and fine physical developments. According to Fiene (2002), outdoor spaces should be enclosed with fences of appropriate height and shall have open and tree plantation areas. According to the Ethiopian Ministry of Education (MoE, 2005 E.C), the minimum outdoor space requirement of a preschool is 500 meter square. Outdoor spaces less than this figure are considered as unqualified. As to the indoor space, the minimum requirement is at least one and a half square meter for each child. The minimum classroom area with 40 children will be 60 meter square or 7 meter by 9 meter (MoE, MoH & MoWA, 2010b).

Equipment must be suitable for children learning and development purposes. With regard to the outdoor play equipment and material, Fiene (2002) explained that outdoor play equipment, such as climbing, swing, slides, seesaw and merry-go-round must be set in concrete footing of appropriate depth to promote the physical development of children in a preschool. The availability of outdoor equipment are among the means that enhance the physical, social, and emotional development of young children as they interact with their peers during the play activity. The guideline (MoE,MoH&MoWA, 2010b, p.55) explains that the equipment must be well maintained and developmentally appropriate, must provide ample opportunity for creativity, social skills and other developmental skills and they must be arranged in an organized manner to allow for accident free play of children. Materials for measuring and dimensions are required to be available in classrooms in sufficient amount so that children shall experiences manipulation activities. Other materials that encourage children to observe, predict, experiment and to evaluate needs to be available to promote children to learn science.

Classroom arrangement refers to the suitability of the classrooms for children. In order to create the learning environment, the classrooms are required to be adequately lighted with natural light,adequately ventilated and the walls must have smooth finish to the height of children. The chairs and tables must be child appropriate, and each child needs to have his/her own chair and one table per four children is the minimum standard (MoE,MoH&MoWA, 2010b; MoE , 2005 E.C).

The sanitation and safety environment indicates the preschool must be fenced, clean, good maintenance and hygienic and it includes accessing children to potable water and water for hand washing .The provision of training children to practice hand washing after and before meals with soap and running water is part of the safety and health service facility to prevent the

transmission of infectious diseases (Vandell& Wolfe, 2000;Fiene 2002). Basic sanitation facilities such as latrine, hand washing water must be available.

The minimum national quality standard specified in the strategic operational plan and guideline for ECCE in Ethiopia (MoE, MoH, MoWA, 2010, p.57)and Inspection checklist (MoE, 2005 E.C& 2007 E.C) is summarized below.

Table 1

Summary of minimum quality of preschool

S.N	Description of Quality	Minimum requirement	Source document
1	Qualification of teachers	Diploma graduate	MoE, 2007 E.C
	Teacher's pre-service period	10 months	MoE, MoH, MoWA, 2010
2	Teacher-child ratio (4 to 5 year olds)	1:30 Maximum	MoE, MoH, MoWA, 2010
	Teacher-child ratio (5 to 6 year olds)	1:40 Maximum	
3	Group size	40 Maximum	MoE, 2005 E.C
4	Physical environment and infrastructure, 4.1 location	Must be away from garage, garbage, heavy traffic areas, and higher sound sources.	MoE, 2005 E.C
	4.2 Indoor space	30 m ²	MoE, 2005 E.C
	4.3 Outdoor space	500 m ²	MoE, 2005 E.C
	4.4 Play equipment (balance, ladder, merry-go-round,	1 each	MoE, 2005 E.C
	4.5 chair	1 per child	MoE, 2005 E.C
	4.6 table	3 per 10 children	MoE, 2005 E.C

In the process of conducting this study, different written materials have been reviewed, accessed and referred. This includes, the National policies, guideline and licensing documents, reports of the Ethiopian Ministry of Education and reports of the international organizations such as World Bank, United Nations International Children's Emergency Fund (UNICEF), United Nations Educational Scientific and Cultural Organization (UNESCO) and International Labour Organization (ILO), Journal articles and empirical researches done on Early Childhood Care and Education and on preschool, Google, Google scholar and relevant books.

There is a shortage of research documents, to accesses on the website, which have been conducted at the national level with regard to quality of preschools and their impacts on young children's development. As the result most of the references used are those of the studies conducted in the developed countries.

CHAPTER THREE

3. Research Methodology

This chapter deals with the research methodology of the study which includes study design , study site, population and sampling technique, data gathering tools and procedure of data collection, scoring and analysis and ethical consideration.

3.1 Design of the study

Early childhood care and education is a program that involves structural and process quality for holistic child development. These two components of quality have interdependent relationships for the effective development of children. The purpose of this study is to investigate whether there required structural quality is maintained in the preschool settings in Addis Ababa City Administration, specifically in Bole Sub-City. The emphasis is given on selected structural quality variables that predict teacher-child interaction process in the classroom setting.

This assessment research was utilizing the survey research design involving both the qualitative and quantitative approaches in the way that they complement each other. The qualitative approach would help to capture data obtained from observations while the quantitative data was obtained from questionnaire.

3.2 Study site

Addis Ababa City Administration is the area of study which is the capital city of the Federal Government, the center of political, economic, cultural, and historical city of the country. The City Administration constitutes ten sub-cities and Bole Sub-City is one of them that was selected as the study site. Bole sub-city consists of 14 woredas. Out of the 14 Woredas, 8 Woredas (57%) were considered as the study area by keeping in mind that a fair representation

of various types of pre-schools are available in the specified area and for cost effectiveness as the site is around the home of the researcher.

3.3 Data source and sampling technique

According to the Addis Ababa Education Statistic Abstract (2015/ 2016), there were a total of 149 preschools in the 14 woredas of Bole Sub-City. Out of the 14 woredas, 8 woredas, (about 57%), were selected for the purpose of this research which consists of 92 preschools. Out of 92 preschools 30 were considered for this study and the following sampling techniques were practiced:

- Simple random sampling technique was employed through using lottery method to select woredas, preschools, and teachers;
- Purposive sampling technique was used to select principals of preschools and
- Experts were purposively selected for interview

3.4 Data gathering tools and procedure of data collection

3.4.1 Data gathering tools

Basically there are various data collection techniques that can be used for research (Gay et al., 2009). To conduct this research multiple data collection tools were used to improve the weakness of one method by another in order to substantiate the findings. Hence the researcher used:

- Questionnaire;
- Observation and
- Interview

3.4.1.1 Questionnaire

Questionnaires were developed by the researcher based on literatures review and on the objective of the research study. The purpose of using the questionnaire was to assess the status of quality in the sampled preschools. Two sets of questionnaires were developed. One set of questionnaire was prepared to collect data from preschool principals while another set of questionnaire for preschool teachers.

The draft questionnaires were sent to advisor for review and approval prior to implementation. Based on the feedback, the questionnaires were field tested. Unclear and redundant questions were detected and corrected to meet the needs of the purpose.

The method employed was self-reported type and the respondents were requested to write the required information in the empty spaces or to put “X” marks in the provided boxes or under the column of “Yes or No” in tables against each question.

3.4.1.2 Observation

Observation method was designed to gather data from preschools through noting the physical environment of preschools. Observation checklists were developed by the researcher based on the document prepared by the ministry of education (MoE, 2005 E.C) for watching the infrastructure of preschools. The checklist was tabulated with the provision of “Yes” or “No” in column for ease of scoring.

3.4.1.3 Interview

This is one of the methods used to collect information from individuals about the subject understudy. This method was used to collect an indirect data from the education experts about their opinion on status of preschools quality through face to face

communication. This will enable to have the information to support the results obtained from questionnaires and observation as they are working on the subject for the betterment of the sector.

3.4.2 Procedure

Questionnaires were distributed to the teachers and preschools principals that were self-administered so that the respondents took their own time to answer questions in the absence of the researcher. Finally, the researcher collected the respondents' paper. Observation was conducted by the researcher using the prepared checklist.

Interview was carried out with the experts and inspectors of the Addis Ababa Education Bureau and Bole Sub-City Education Bureau; while observation was conducted by the researcher through using checklist. Relevant secondary data was also collected from documents by the researcher.

3.5 Data Analysis

The questionnaire is designed to collect the primary data from preschool principals and teaching staffs. It is organized to collect the demographic information of respondents and the preschool environment. The demographic part provides to the researcher the qualification status of the respondents as well as their training and experiences in the area of early childhood care and education. The information in the preschool area is used to get answers to the physical environment, teacher to child ratio and the group sizes of the given preschool.

The interview questions are used to obtain the strength, weakness and challenges of preschools in maintaining their quality with regard to physical environment, provision of qualified teaching staffs, and in keeping of the right teacher to child ratio and group size. The extent of the

government involvement in supporting preschools to maintain their quality status will be assessed also.

The observation part mainly deals with the assessment of the physical environment of the preschools to investigate the status of the preschools to maintain the quality of their physical environment.

Data obtained from questionnaire respondents will be analyzed using percentage and frequency while data obtained from observation, interview, and document analysis will be analyzed using narrative description method.

3.6 Ethical Consideration

In order not to claim the findings of others as his own the researcher cited the sources. The response of the research participants was not be used for another purpose except as an input for the research study. Confidential issues of the institution that may be encountered during the study will not be disclosed.

The researcher submitted to the concerned an official letter from Addis Ababa University. The aim of the study shall be explained clearly that it is only for an academic purpose. The researcher shall clearly inform that no individual or group will be advantaged or disadvantaged by being included or excluded in the process of quality assessment activities in a given preschool.

CHAPTER FOUR

4. Result and discussion

4.1 Result

This chapter deals with presentation, analysis and interpretation of data gathered from sampled preschools through research questionnaires, observation, interviews and document analysis. Thirty (30) preschools were sampled from preschools found in different woredas of Bole Sub city. The questionnaires were distributed to 30 principals and to 120 preschool teachers. Out of the targeted population, 25 (83.33%) of the principals and 102 (91.07%) of the teachers have responded by filling the questionnaires. Hence, the discussion of this chapter is based on the data collected from 25 principals and 102 preschool teachers and on the results of observation, interviews and document analysis.

4.1.1 Result obtained from questionnaire

4.1.1.1 Characteristics of the respondents

The characteristic of respondents comprises the demographic aspects of the participants that include gender, Qualification of teachers and principals, Pre-service education on kindergarten, Work experience and in- service training for professional development.

Table 2

Demographic characteristics of Respondents'

Description	options	Teachers (N=102)		Principals (N=25)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1. Gender	Male	1	0.98	3	12
	Female	101	99.02	22	88
	Total	102	100	25	100
2. Qualification of teachers and principals	Grade 10 completed	7	6.86	-	-
	Grade 12 completed	14	13.73	1	4
	Certificate	11	10.78	-	-
	Diploma	44	43.14	10	40
	BA/BSc	26	25.49	14	56
	Total	102	100	25	100
3. Pre-service education on kindergarten	Yes	61	59.8	13	52
	No	41	40.20	12	48
	Total	102	100	25	100
4. Work experience	1 to 2 years	18	17.65	1	4
	3 to 6 years	50	49.02	11	44
	Above 6 years	34	33.33	13	52
	Total	102	100	25	100
5. In- service training for professional development	Yes	48	47.06	20	80
	No	54	52.94	5	20
	Total	102	100	25	100

According to Table 2 above the majority of the teachers, 101 (99.02%) and 22 (88%) of the principal respondents were females. Even though there is no special requirement with regard to gender, the presence of higher percentage of females in preschools.

a) Teaching staff's qualification

The educational qualification of teachers is the most important factor for the overall preschool quality. Qualified teachers provide suitable environment by keeping consistent environment, through developing positive relationships between themselves and children and among children. Such environments foster positive developmental and learning outcomes of children.

The quality of principals is related to their level of education and professional developments. Principals play an important role in creating strong leadership capacity and to supporting the professional development of the teaching staffs. Preschools' staff quality can be maintained by a strong leadership through motivating and encouraging the teaching staffs, and by developing a team spirit to achieve the desired goals.

Table 2 above shows the educational qualification levels of both the teachers and principals of the sampled preschools in Bole Sub City. According to the table 44(43.14%) of the preschool teachers are diploma holders followed by 26(25.49%) degree holders. With regard to principals, the same Table indicated that 14 (56%) of the preschool principals are degree holders while 10(40%)of them are diploma holders.

With reference to Table 1(standard), 1(4%) of the principals has the qualification below the specified norm given by the government while 32(21.37%) of the teachers are failed to meet the minimum requirement.

b) Teaching staff's pre-service training

According to the data from Table 2, 61(59.80%) of the teachers 'have attended the pre-service education on the theoretical and practical aspects of early childhood education, while 41 (40.20%) of them did not. With regard to principals, 13 (52%) of them have attended pre-service training on the subject of early childhood education.

As to their work experiences, 18 (17.65) of teacher and 1 (4%) principals had 1 to 2 years of services while the majority 50 (49.02%) of teachers and 11 (44%) of the principals have 3 to 6 years of services in preschools. 33.33% and 52% of teachers and principals, respectively, had experiences of more than 6 and above years degree.

Having the teachers and principals with 3 and above service years, 82.35% and 96% respectively, is advantageous for the children because much more times mean gaining more skills and competency that enable them to support children's developmental outcomes.

c) Teaching staff's in-service training

One of the means of enhancing the effectiveness and efficiency of preschool service delivery is the provision of in-service training. The provision of such service enables to minimize the deficient gap created by those who have not been trained prior to recruitment. For those who have been trained, the in-service training will be used as the up scaling process of their professional development. One of the questions raised in the questionnaire distributed to the teachers was whether they have been given an opportunity to have the in-service training to upscale their professional development.

Out of the 102 teachers and 25 principals, 54 (52.94%) and 5 (20%) of the teachers and the principals respectively, have not given the opportunity for the development of their professions through in service training.

4.1.1.2 Teacher Child Ratio and Group Size

a) Teacher child ratio

Teacher child ratio is one of the quality indicators in preschool settings that predict the quality of classroom. The ratio is calculated by dividing the number of children in a given level to the number of teachers in the same level (AAEB, 2012/2013). The same document defines teacher child ratio as Pupils Teacher Ratio (PTR).

Table 3

Teacher- Child Ratio and Group size (Class size)

Description	Preschools (N=26)		
	Option (ratio ranges)	Frequency	Percentage (%)
Teacher Child ratio	Less than 1:10	2	7.69
	1:10-15	13	50.00
	1:16-20	8	30.77
	1:21-25	2	7.69
	1:26-30	-	-
	1:35	1	3.85
	Total	26	100
Group size (Section Child ratio)	16-20	4	15.38
	21-25	6	23.09
	26-30	5	19.23

	31-35	5	19.23
	36-40	2	7.69
	Greater than 40	4	15.38
	Total	26	100

Based on the Educational Abstract of the Addis Ababa Education Bureau (2015/2016) data, Teacher-child ratio was calculated and tabulated in Table 3 above. The figures show that the teacher- child ratio of 15 preschools fall within the range of 10 to 15(50.00%) ,8 preschools ratio was found to be within the range of 16 to 20(30.77%) while 2 (7,69%) preschools' ratio falls within 21 to 25 ranges and 1(3.85%) preschool's teacher -child ratio was found to be 35.

b)Group Size

Group size is defined as Pupils Section Ratio (PSR), (ESAA, 2015/2016). It is calculated by dividing the number of children by the number of classrooms assigned for preschool services. Table 3 above indicates that 22 preschools (84.62%) have from 16 to 40 children per classroom. Out of the sampled preschools four (15.38%) of them have greater than 40 children per classrooms.

4.1.1.3 Physical Environments and infrastructures of preschools

Children have the need to interact with the world around them such as objects, nature and people. As children spent more of their wake times in preschools, the organization of the preschool environment brings impacts on social, emotional, physical and cognitive development of children. The results of the research findings of the physical environments of preschools are discussed in this section under different sub-headings which are related to the physical environment and the infrastructures of the assessed preschools.

a) Preschool Outdoorspaces and facilities

Table 4

Preschool outdoor spaces and preschool buildings

Description	Teachers (N=102)		
	Options	Frequency	Percentage (%)
1. Outdoor space is sufficient for the children	Yes	80	78.43
	No	22	21.57
	Total	102	100
	Principals (N=25)		
2. Outdoor space area is equal or greater than 500 meter square	Yes	20	80
	No	5	20
	Total	25	100
3. There is lack of land resource	Yes	19	76
	No	6	24
	Total	25	100
4. The existing building is not intentionally built for preschool purpose	Yes	15	60
	No	10	40
	Total	25	100

Table 4 above indicates 22 (21.57%) teacher respondents affirmed that the outdoor space is not sufficient for the children to serve the required purposes (item number 1 in Table 4). Five (20%) of the principals also confirmed that the outdoor space areas of some of the preschools are below 500m²(item number 2 in Table 4).Scarcity of land resource is one of the potential problems of

the sector and creates significant negative impacts on the growth of the service. 19 (76%) of the principals responded that (item number 3 in Table 4) there is a shortage of land resource.

According to the data from Table 4 (Item number 5), 15 (60%) of the principals confirmed that their preschools are operated in the buildings which are not built for such purpose.

b) Preschool indoor space and facilities

As children spent major parts of the day in classrooms, the indoor environment and spaces should be appropriate and sufficient that allows free movement of both children and teachers and enables teachers to display indoor play materials.

Table 5

Indoor spaces and facilities of preschools

Description	Option	Teachers (N=102)	
		Frequency	Percentage (%)
1. Indoor space is proportional to number of children	Yes	71	69.61
	No	31	30.39
	Total	102	100
		Principals (N=25)	
2. Classroom area is equal or greater than 60 meter square	Yes	15	60
	No	10	40
	Total	25	100

Table 6 above indicates that 31 (30.39%) teachers responded that the classroom area is not proportional to the number of children in the class. Similarly 10 (40%) of principals endorsed that the spaces of the classrooms are below 60 meter square.

One of the major causes of small classrooms may be due to the rented buildings as it is not possible to modify them. The preschoolers are forced to use the building without modification.

4.1. 2 Resultsobtained from Observation

a)Location of preschools

The researcher observed that 30.39% of the preschools are not away from garage and garbage sites while 32.35% of them are exposed to highway roads. Being located at the vicinity of highway roads exposed children to unavoidable repeated heavy trucks noises. The researcher also observed that 4 (15.4%) of the preschools are exposed to repeated heavy Airplane noises as the locations of the preschools are at the proximity of Bole Airport take-off and landing terminal.

b)Outdoor space and the environment

It is found that 60% the preschools are running their business in the rented houses which are not intentionally built for this purpose. As the result the observed outdoor spaces do not fulfilled the requirements, 500m².

The researcher also observed that 6 (23%) of the preschools compounds are without trees and green areas. The play grounds are dusty and are not conducive environment for children. Three of the preschools buildings are found constructed by sheet metals that can create uncomfortable environment for children as the sheet metals are getting hotter during the sunny seasons.

c) Outdoor play equipment

The researcher observed that out of 26 preschool, 17 (65%) preschools do not have the required number of the outdoor play equipment.

4.1.3 Result obtained from Interview

a) Teaching staffs qualification

The experts explained that there is a short of skilled man power in the market. Especially the challenge is severe for the private owners since the government training institute only provides service for the government preschools. Besides, the private institutions are officially closed by the government.

b) Preschools licensing, indoor and outdoor spaces.

Based on the requests of the private investors pre assessment will be made to check whether the minimum requirements are fulfilled or not. With tolerance on some issues license are issued to provide an opportunity to the community. They explained further that inspection will be conduct annually to follow-up the progress towards the requirements.

During interview, the experts of Bole Sub-city also substantiate that lack of land resource is one of the major problems especially for the private preschool owners that hinders the building of standard preschools by the private investors. As the result, some of the private preschools are forced to provide the services in the rented building which are not intentionally built for the purpose of preschool. As the result indoor as well as outdoor spaces some preschools are not as per the requirement in general.

4.2 Discussion

The purpose of this study was to assess the quality of preschools found in Bole Sub-City at different wordas. In order to achieve the desired purpose the following basic questions were raised:

- c) What is the status of Bole Sub-City preschools in maintaining the following structural quality variables:
 - Qualification of teaching staffs,
 - teacher to child ratio, group size and
 - Preschools physical environment
- d) What are the major challenges encountered by the preschools that affect the sustainability the required quality standard stated in the operational guideline?

In order to answer these questions data was collected from twenty six (26) randomly selected preschools. Participants were randomly selected 102 teachers and assistant teachers. 25 purposely selected preschool principals and staffs from Addis Ababa and Bole Sub-City Education Bureaus were another group of participants. Self-administered close-ended questionnaires were distributed to both teachers and principals. The findings were tabulated for each case for quantitative analysis using frequency and percentage followed by description of the tables. To supplement the quantitative explanation, qualitative data were obtained from interview of the staffs from the Education Bureaus using semi-structured questions and from observation conducted by the researcher through using checklist. From the analysis of data the major findings could be summarized as follows:

4.2.1 Qualification of preschool's teaching staff

The issues considered under this section include professional qualifications of preschool principals and teachers, pre-service and in-service trainings provision for teaching staff.

a) Qualification of principals and teachers

The quality of principals is related to their level of education and professional developments that plays an important role in creating strong leadership capacity and to supporting the professional development of the teaching staffs. Preschools' staff quality can be maintained by a strong leadership through motivating and encouraging the teaching staffs, and by developing a team spirit to achieve the desired goals.

The educational qualification of teachers is the most important factor for the overall preschool quality. Qualified teachers provide suitable environment by keeping consistent environment, through developing positive relationships between themselves and better teacher-child interaction. Such environments foster positive developmental and learning outcomes of children.

Formal education refers to learning acquire the academic education levels such as certificate, diploma and degrees. But in order to work in preschool education sector it requires having specific knowledge, skills and competencies with regard to early childhood development and pedagogical aspects at this level.

The document entitled Strategic Operational Plan and Guidelines for Early Childhood Care and Education (ECCE) in Ethiopia (MoE, MoH&MoWA, 2010b; pp.57-58) specifies teachers' and assistant teachers' responsibilities and educational qualifications in the following manner:

Teachers and assistant teachers entrusted with the responsibility of supporting the learning and development of preschool children should have the following qualities:

- Knowledge and skills related to holistic child development;
- Ability to work well with children, parents and others in the preschool setting;
- Commitment to enhancing the development of young children;
- Teachers should hold a 10 months preschool teacher training course certificate from the Teacher Education Institute, or have attended a 2 months course to upgrade their skills and knowledge, especially in the field of “active learning of young children”.
- Assistant Teachers, who support the works of the main teachers, are adults of sound mind and no criminal record.
- Assistant Teachers should have a Community Health Promoters or Health Assistant certificate with special attention to early stimulation, as offered by the Government or other institutions authorized by the Government.

As per the recent document (MoE, 2007 EC) the minimum qualification of principal and main teacher is diploma graduate while assistant is 10th grade complete. Besides it requires that teachers should hold a 10 months preschool teacher training course certificate from the Teacher Education Institute, or have attended a 2 months course to upgrade their skills and knowledge, especially in the field of active learning of young children.

The minimum requirements for preschool principals, teachers and assistant teachers are specified at the national level as it stated above however, the assessment results (Table 2) indicated that 1 (4%) of the principals and 32 (21.37%) of the teachers failed to meet the qualification standards set by the government. The current qualification status of the

preschool teacher in Bole Sub-City is given in the Addis Ababa Education Bureau (AA EB) Education Statistics Annual Abstract of 2008 E.C (2015/2016). According to this document, out of 2854 preschool teachers, 135(4.73%) are having qualification below certificate, and 1288(45.13%) are certificate holders while 1431(50.14%) of them are having the qualification of diploma and above. These figures also confirmed that there are unqualified teachers who are working in preschools.

b) Teaching staff's Pre-service and in-service trainings

As the preschool program requires a higher level of knowledge than what is attained with the diploma or higher academic education, the provision of pre-service specialized training is very essential to harmonize the professional competency of the preschool teaching staff. Hoot et al., (2004; p.5) provides the evidences on how the pre-service specializing training was conducted in Ethiopia prior to engage in the actual teaching practices and is quoted below:

The Preschool Teacher Training Institute (PTTI), established in Addis Ababa in 1986, is one of the few .During the 3-month specialized training program at this institution, trainees engage in basic coursework emphasizing the preparation of preschool teaching materials. Courses are organized in 12- course modules that includes: preschool pedagogy, child psychology, health and nutrition, language development, pre-math, environmental education, arts and crafts, music, health and physical education, preschool management and administration, and play. Following this coursework, trainees engage in a short practicum with children using the materials they constructed through the modules.

As it indicated above pre-service training is one of strengthening means of the effectiveness of the teaching staffs, but the findings (Table 2) indicates that 39 (38.2420%) of teachers and 12 (48%) of principals did not participate in the pre-service training.

In order to have a deeper understanding about children's development and early education, it requires having richer educational experiences that can be achieved through in-service continual professional development such as attending seminars, workshops, and conferences besides the pre-service training. Such opportunity helps teachers to master the contents of the subject and teaching skills that enable them to bring sustainable positive impacts on child's development. However the finding (Table 2) indicate that 54 (52.94%) and 5 (20%) teachers and principals, respectively, did not get the opportunity to attend in-service training.

On the other hand the Experts of both of the Addis Ababa and Bole Su-City Education Bureaus explained that there is lack of skilled man power as there is lack of teacher training institutes since the private institutions are officially closed.

The researcher was informed by both the Addis Ababa and Bole Sub-City Education Bureaus that the government recognized the problem and is in the processes of organizing summer courses to provide in-service training on paid bases for the existing untrained teachers who are working in the private preschools.

The research findings and the official government document(AAEB, 2015/2016 G.C)confirmed that there are teachers who are working in preschools without academicqualification and appropriate training. Such environment affects the teacher-child interactions that lead to unhealthy child development. It fails to meet the theoretical as well as the minimum requirements of the

government. As the result it is not easy to achieve the desired objectives of the ECCE unless the required measure is taken to correct the nonconformance.

4.2.2 Teacher Child Ratio and Group Size

a) Teacher Child Ratio

It is one of the quality indicators of preschools that is calculated by dividing the number of children by the number of teaching staffs. The national standard set by the government is 1:40 (MoE, 2005E.c & 2007E, C) at the national level. The document prepared by the cooperation of the Ministry of Education, Ministry of Health and the Ministry of Women's' Affair (2010b) specifies that there are no more than 40 young children for one teacher and one assistant in a classroom of children 4 to 6 year olds. The figures in the Table 3 indicated that the ratio is maintained within the stated norm. Hence the status of teacher- child ratio is found good because the lower the ratio the higher the opportunity of contact between the teacher and children and enables the teacher to provide support to children individually.

b) Group Size

Group size is defined as the number of children per classroom. The national standard is a maximum of forty (40) children in each classroom. This is to regulate overcrowded classrooms because overcrowded classrooms are difficult to manage and lead to lower quality service that results with lower developmental outcomes of children.

The national standard set by the government is 1:40 (MoE, 2005E.c & 2007E, C) at the national level. This is used to avoid overcrowded classroom. According to Table 3, 4 (15.38%) of the preschools' group sizes are found exceeding the defined standard.

4.2.3 Physical environment of preschools

The issues to be addressed under this section include preschool location, outdoor and indoor spaces, safety and sanitation and outdoor play equipment of preschools.

a) Location

According to the national standard requirements (MoE, 2005EC, p.6; MoE 2007 E.C; p.9) preschool must be away from:

- Garage area and Garbage sites,
- Hotels and restaurants
- Music shops, noisy environment and vibrating machines and
- High traffic main road

The document prepared by the cooperation of the Ministry of Education, Ministry of Health and the Ministry of Women Affairs (MoE, MoH&MoWA, 2010;pp.53-54) specified the requirements of the preschools' environment as follows:

- The environment should be attractive, pleasant and physically safe place for children,
- Cleanliness, good maintenance and hygiene must be a priority.
- The location should be free from pollution and far away from garbage sites.

- Basic sanitation facilities need to be available, including one latrine and water for hand washing.

As per the requirement, a preschool needs to be away from garage and garbage sites and noisy environment however the researcher observed that 30.39% of the preschools are not away from garage and garbage sites while 32.35% of them are exposed to highway roads. Being located at the vicinity of highway roads exposed children to unavoidable repeated heavy trucks noises. The researcher also observed that 4 (15.4%) of the preschools are exposed to repeated heavy Airplane noises as the locations of the preschools are at the proximity of Bole Airport take-off and landing terminal.

The noisy environment could affect the teaching and learning process and may disturb the napping program of the children.

The occurrences of higher sound at the vicinity of preschools affect the healthy setting and interrupt the formal teacher-child interaction environment and hamper healthy child development environment. Therefore the preschool owners need to find alternatives to find the suitable location that promote healthy child development.

b) Preschool outdoor space

According to the findings 22(21.57%) teachers testified that the outdoor space of the preschools do not have sufficient areas for the children. 5 (20%) of principals confirmed that 5 preschools do not have areas of 500meter square. On the other hand 60% of preschools were operating in the buildings which were not intentionally built for preschools purpose.

The government (MoE, 2005 E.C, MoE, MoH&MoWA, and 2010b) document specified the national standard for preschool outdoor space as follows:

- The minimum outdoor should be 500meter square
- The setting of the physical space should allow for free movement of both children and adults.
- Sheet metals are outlawed not to be used as one of the construction materials for building of preschool walls
- The center should be easy to identify and clearly marked as preschool

Some of the preschools space areas do not meet the minimum requirements. The space of some of the preschool are found so congested and is difficult for children to practice different activities based on their needs. Some of the preschools are not easily accessible as they are located in a densely and closed-up areas

The researcher observed that 6 (23%) of the preschools compounds are without trees and green areas. The play grounds are dusty and are not conducive environment for children. Three of the preschools buildings are found constructed by sheet metals that can create uncomfortable environment for children as the sheet metals are getting hotter during the sunny seasons. This can affect the learning-teaching process that impedes the achievement of the planned developmental outcomes. As most of the teaching methodology in kindergarten is through playing, insufficient space hampers to practice playing.

The outdoor space needs to be proportionally larger as it is the place where children feel a sense of freedom that will enable them to engage in a range of gross motor activities such as running, jumping, crawling, and rolling. It is explained that children who regularly involved in the outdoor plays tend to develop stronger immune systems, play more creatively, have more active imaginations and lower stress levels (NAEYC, 2014). But result of the assessment indicates that 21.57% of the teachers and 20% of the principals conformed that their preschools outdoor spaces

are below the given requirements. As the results it hampers children's outdoor activities that affect the physical and social development of children.

During interview, the professionals of Bole Sub-city also substantiate that lack of land resource is one of the major problems especially for the private preschool owners that hinders the building of standard preschools by the private investors. As the result, some of the private preschools are forced to provide the services in the rented building which are not intentionally built for the purpose of preschool.

Confined outdoor spaces prohibit children's running, jumping playing which affects peer interaction, physical and social development of children. It requires more attention to resolve the problem.

c) Preschool indoor space

According to the document of the Ministry of Education (MoE, 2005E, C) the indoor space requirement is calculated based on the number of children per each classroom by assigning 1.55 meter square per child. If the group size of the given class is 40 the minimum area requirement should be 62 meter square. Another document of the government (MoE, MoH&MoWA, 2010; p54) specified the requirements of the preschools indoor spaces as follows:

- The setting of the physical space should allow for free movement of both children and adults.
- The room should be well ventilated, with enough window space to allow a good flow of air.
- There should be an area for displaying the children's creative work

However the space areas of 10 (40%) of the assessed preschools classroom areas do not in compliance with the requirements stated by the government. As the result children in these preschools are learning in the classrooms not proportional to the number of children. Therefore child-initiated play cannot be considered.

Sufficient indoor space is required because it provides opportunities for teachers to organize children into smaller groups to create better learning environment and to provide opportunities for children to play, relax and learn in a variety of ways within the classrooms.

Again the issue of indoor space needs to be considered as one the improvement areas by recognizing its role in healthy child development.

d)Outdoor Play equipment

Children display the highest levels of physical activity on playgrounds that have both the natural materials and manufactured equipment. All the outdoor equipment in the play space should be age appropriate for the children who use it, to ensure safety and maximum skill development. As children in preschool play using the age appropriate equipment, they will develop both physically and emotionally. Physical development occurs as children exercise physical activities using the outdoor play equipment. Social development occurs as they negotiate on scheduling on the turn of play among the peer groups.

However equipment is not uniformly available in preschools. The preschools which do not have some equipment are summarized below:

- Two (2) preschools lack Seesaw,
- Swing is not available in five (5) preschools,
- Slide is not available in six (6) preschool, and
- Merry-go-round is not available in four (4) preschools

CHAPTER FIVE

5. Summary and Recommendation

5.1. Summary

The purpose of this graduation thesis is to survey the quality of Early Childhood Care and Education (ECCE) with specific to preschool service provision. The survey was conducted in Bole sub-city of Addis Ababa by sampling 30 preschools.

Early childhood stage is the criteria period in the human development processes. It lays the foundation for the development of responsible future generation. Recognizing the importance of ECCE the Government of Ethiopia has developed national policy framework, strategic operational plan and implementation guidelines for ECCE. Guideline has been developed by the Ministry of Education for issuing license for those who are interested to provide preschool services.

In order to conduct the survey study, this thesis is structured under five chapters that deal with different subjects. The first chapter deals with introduction part while the second chapter focused on relevant literature review. Method of the study was dealt in chapter three that defines questionnaires, observation and interview as a means data collection instruments. Chapter four consists of the results of the research findings and discussion while chapter five provides the summary, conclusion and recommendation part of the thesis. The findings in response to the questionnaires, observation and interview have been documented and briefly summarized below:

5.1.1. Qualification, pre-service and in service of teaching staff

In spite of the availability of working documents to manage the operation of the sector, the following shortcomings were found with regard to qualification of the teaching staffs.

- 22 % of academically unqualified teachers were found working in the preschools
- 38 % of the teachers were not trained on ECCE prior to joining the teaching service;

- 54 % of the teachers did not get the opportunity of in-service training to up grade their skills and competences.

5.1.2. Teacher –child ratio and group size:

Preschools were found maintaining both the teacher-child ratio and group size within the specified norm stated by the government.

5.1.3. Physical environment and infrastructure:

- 30.39% were not away from garage and garbage areas
- 32.35% were found at the vicinity of highway road and exposed trucks noise
- 15.4% preschools were found exposed to heavy air plans noise as their location are at the proximity of airplanes take off terminal;
- 60% of the preschools were operating their businesses in the rented buildings which are not intentionally built for the purpose of preschool. As the results their outdoor and indoor spaces were found below the minimum standards.

5.1.4. Challenges

Challenges refer to the problems of the preschools encountered from the external environment in the process of providing the services to children. The findings of preschools challenges are summarized as follows:

- Shortage of trained preschool teachers in the market;
- Shortages of preschool teacher training institutions as the private institutions are officially closed;
- Lack of land resources to build preschools.

5.2. Conclusion

As it was discussed earlier in this thesis, the empirical evidences confirmed that meeting preschools teacher's qualification is one of the major structural quality that predicts positive process quality of preschools that promotes healthy child's development. However the study shows that the qualification of some teaching staffs was found below the required quality norm. The presence of academically unqualified and untrained teachers working in preschools affects negatively the process of teacher-child interactions as they lack the theoretical and practical knowledge to meet child's developmental needs. As the result, such condition will hamper to achieve the desired child's developmental objectives.

On the other hand, teacher-child ratio and group size were found very encouraging as almost all sampled preschools have met the specified quality status stated by the government. These variables are other process quality predictors, because meeting the quality standard allows teachers to interact with children at an individual level and enable teachers to segregate those who needs teacher's extra support to perform their activities. Such condition provides appropriate classroom environment that promotes holistic child's development.

With regard to physical environment, the location some of the preschools were found not convenient to conduct the teaching – learning processes. Some of them were at the vicinity of garage, highway traffic road and others were exposed to the noisy environment. Majority of the preschools were operating their businesses in rented building which were not intentionally built for the purpose of preschools. All these structural quality variables affect teachers - children interaction processes that impede holistic child development.

5.3. Recommendation

Based on the findings, the following recommendations are provided to maintain the quality of preschools within the required norm. Both the Ministry of Education and preschool owners need to commit themselves to correct the nonconformities and to resolve the challenges to meet the quality standards set by the government.

a) Ministry of Education

The Ministry of Education needs to:

- Strengthen the existing government preschool teacher training institutions to resolve the shortage of qualified manpower ;
- Provide pre-service and in-service trainings for preschool teachers;
- Encouraging the participation of private sectors to involve in the establishment of standardized private preschool teacher training institutions to alleviate the shortage of qualified teachers;
- Substitute sheet metal buildings of the government preschools by the appropriate materials;
- Strengthen the supervision of preschools prior to re-issue their licence.

b) Preschool owners

The preschool owners refer to those who provide the preschool services other than the Government. They need to:

- Select appropriate locations, for healthy child development ; to provide the required outdoor and indoor spaces;

- Acquire sufficient land resources for the building of preschools to provide the required outdoor and indoor spaces;
- Recruit the qualified teaching staffs for their preschools;

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