

**EVALUATION OF THE IMPLEMENTATION OF EARLY CHILDHOOD
CAREDEVELOPMENT AND EDUCATION CURRICULUM IN NORTH -WEST
GEO-POLITICALZONE OF NIGERIA (2004-2015)**

BY

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE
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JULY, 2016

DECLARATION

I declare that the work in this dissertation entitled “Evaluation of the Implementation of Early Childhood Care Development and Education Curriculum in North-West Geo-Political Zone of Nigeria” has been carried out by me. The information derived from the literature has been duly acknowledged in their texts and a list of references provided. No part of this dissertation was previously presented for another degree or diploma in this or any other institution.

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Date

CERTIFICATION

This dissertation entitled “EVALUATION OF THE IMPLEMENTATION OF EARLY CHILDHOOD CARE DEVELOPMENT AND EDUCATION CURRICULUM IN NORTH-WEST GEO-POLITICAL ZONE OF NIGERIA” by SA’ADATU HANGA SANI meets the regulations governing the award of the Degree of Doctor of Philosophy (Curriculum and Instruction) of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This dissertation is dedicated to my children Aisha, Usman and Amina Farouk Yola and otherchildren in the World. May Almighty Allah guide them.

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ABSTRACT

The study evaluated the implementation of early childhood care development and education curriculum in the North-West Geo-Political Zone of Nigeria. Specifically, the study sought to evaluate the adequacy and standard of infrastructure, the standard and availability of resources including personnel and whether the early childhood care development and education programme has any influence on the academic performance of pupils at the primary education level. Seven (7) hypotheses were formulated to find out significant differences in the opinions of the five groups of respondents. The total sample number of respondents was 392 made up of 146 Head Teachers, 138 ECCDE Teachers, 68 Supervisors of LGEAs, 35 Supervisors of SUBEBs and five (5) Coordinators of UBEC. The selection of States was based on purposive sampling technique in which two (2) States out of the seven (7) States in the Geo-political zone were sampled. The education zones and LGEAs in the two (2) States were randomly sampled, as a result of which six (6) zones and six (6) LGEAs that is, three (3) each from the two States were sampled respectively. The instruments for data collection were a questionnaire, observation and test. A total of 396 questionnaires were administered by the researcher and 392 copies were retrieved while data were analysed using ANOVA, descriptive statistics, chi-square and t-test. Similarly, 5 centres were sampled for observation from each LGEA totalling 30 and the results were analysed using simple percentages. The research findings revealed that the ECCDE programme prepared children for primary education but there were inadequate instructional materials; human resources and health care; and with most of the centres facing teacher-pupils ratio challenges and the programme was partially implemented. Based on the findings from this study, recommendations were made that the ECCDE curriculum should be simplified by breaking its contents into units of topics each with its appropriate teaching method for effective implementation; intensification of efforts by Governments to address pupils' over-population as the teacher-pupils ratio per class was far from the set minimum standard; fostering cordial relationship between quality assurance officials on one hand, and the ECCDE personnel on the other; and encouraging teachers to use the appropriate teaching methods when and where necessary for effective implementation of the ECCDE programme not only in the North-West Geo-political zone but the nation at large.

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OPERATIONAL DEFINITION OF TERMS

Early Childhood: It is the period of a child's life from 0-8 years. However, in Nigeria, it is the period between 0-5 years- a time that is critical to the holistic development of the child.

Care: Care is the action taken to ensure the protection and support for the health of the child. It entails the provision of stimulating and safe environment, adequate and balanced diet, love, acceptance, affection, interaction and other actions that respect the rights of the child.

Education: In this context, education means teaching, caring and training of the young children between the age of 0-6 for acquiring skills, values and desirable norms, through the principles of child independence, observing the child, following the child, correcting the child, prepared environment and absorbent minds.

ECCDE Curriculum: In this context, curriculum is everything the children undergoing the ECCDE programme do, see, hear and feel.

LIST OF ABBREVIATIONS

CRC	Convention on the Rights of the Child
ECCDE	Early Childhood Care Development and Education
ECCE	Early Childhood Care Education
ECD	Early Childhood Development
ECE	Early Childhood Education
EFA	Education for All
ESL/EFL	English as a Second Language/English as a Foreign Language
FME	Federal Ministry of Education
FRN	Federal Republic of Nigeria
IECD	Integrated Early Childhood Curriculum Development
JAMB	Joint Admissions and Matriculation Board
LGEA	Local Government Education Authority
MDGs	Millennium Development Goals
MOE	Ministry of Education
NAEYC	National Association for the Education of Young Children
NCCE	National Commission for Colleges of Education
NCE	Nigerian Certificate in Education
NERDC	Nigerian Education Research Development Council
NGO	Non-Governmental Organization
NIRN	National Implementation Research Net Work
NPE	National Policy on Education

NTI	National Teachers Institute
NUC	National Universities Commission
PSMB	Primary Schools Management Board
PTA	Parents Teachers Association
SBMC	School Based Management Committee
SCIQ	Science Curriculum Implementation Questionnaire
SPEB	State Primary Education Board
SSO	Supporting Staff Officer
SUBEB	State Universal Basic Education Board
UBE	Universal Basic Education
UBEC	Universal Basic Education Commission
UBEP	Universal Basic Education Programme
UN	United Nations
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations Internal Children Emergency Fund
WAEC	West African Examinations Council

CHAPTER ONE INTRODUCTION

1.1 Background to the Study

Quality education at the early years of a child is very important and there is no gain saying the fact that these formative years have great impact on the later life of the child and consequently national development. In essence, the physical, emotional and cognitive development of the child, if properly taken care of would benefit the child and the nation in general. This is why the Education for All (EFA) goal urges all nations to expand early childhood care and education services to all children particularly the vulnerable and disadvantaged by the year 2015.

The education system in Nigeria before 1999 was six years in primary school, three years junior secondary school and three years senior school. The Federal Government of Nigeria in the 6th edition of the National Policy on Education is very clear on the importance of basic education as the edition highlights and emphasises among others; “the consolidation of Kindergarten, Primary and Junior Secondary education to a 10-year Basic Education in line with the UBE and its establishment Act”.

In Nigeria, pre-primary education caters for children aged 3-5 years, prior to their entering primary school and is aimed at facilitating a smooth transition from home to school; providing adequate care and supervision for children while their parents are at work (on the farms, in the markets, offices, and so on); preparing the child for primary education; inculcating social norms; inculcating in the child the spirit of enquiry and creativity through the exploration of nature, and the local environment, playing with toys, artistic and musical activities; teaching co-operation and team spirit; teaching the

rudiments of numbers, letters, colours, shapes, forms, and so forth, through play; and teaching good habits especially good health habits.

The curriculum was however, reviewed and revised in 2003/2004 using an integrated bottom up approach, targeting children aged 0-5 years. This revised curriculum was approved for use by the government, and a training manual to facilitate the use of the curriculum was in the process of development. The training manual was expected to promote the integrated approach and converge all sectoral interventions, health, nutrition, water and environmental sanitation, psycho-social care, early learning, child protection- with the aim to fulfilling the rights of all young children and creating a conducive environment for them to survive, live, learn and reach their full potentials.

Early Childhood Care Development and Education (ECCDE) centres, day care centres and play groups are usually for children aged 0-2 years and 2-3 years. The UBE Act (2004) has an expanded scope which includes programmes and initiatives for early childhood education and development. The UBE programme has made provision for every public primary school to have a pre-primary school linkage to cater for children aged 3-5 years. Now that the Early Childhood Development programme is covered by the UBE law, government ownership at State/LGA/community levels is certain to increase, particularly regarding centres catering for the 3-5 year olds.

UNICEF (2003) Act on the Child Rights and UBE (2004) Act on the National Policies on Education, Food, Nutrition and Health, are laws and policies that have given shape to different sectoral interventions on Early Childhood Care Development and

Education in the country. Currently however, there exists an Integrated Early Childhood Development (IECD) policy that integrates interventions from the various sectors to promote an integrated holistic approach to the development of the child in its very earliest years. This stand-alone policy is expected to bridge observed gaps in existing sectoral policies, for example, the National Policy on Education and the UBE Act both of which did not make specific provisions for children aged 0-3 years.

The ECCDE are services meant for children under compulsory school age involving elements of both physical care and education. Apart from making critical contribution to cognitive stimulation, socialization, early education and child development, early education and care services are essential services in most cases given to employed parents. The programme may also be provided before or after for primary school aged children. ECCDE programmes include a wide range of part day, full school day, and full-work-day programmes under education, health, and social welfare auspices, funded and delivered in a variety of ways in both the public and private sectors. Early childhood education is also referred to as the education given in an institution to children prior to their entering the primary school. It includes the crèche, the nursery, and the kindergarten.

The early years of a child's life are the most important to the formation of intelligence, personality and social behavior of a child. The years before a child reaches Kindergarten are among the most critical in his or her life to influence learning. That is why modern societies show serious concern for the education of their young ones by providing needed support to prepare them to succeed later in school. However, reports

across the globe revealed that an estimated figure of one hundred million children struggle daily for survival in villages and cities, and are exposed to the risks of hunger, poverty, disease, illiteracy and abuses. The need to address the problems and salvage these children and the next generation of children from these menace, necessitated the Early Childhood Care Development and Education programme. The aim of ECCDE is to foster the proper development of the children, identify and address their problems, harness their potentials, shape their character, enhance their learning as well as equip them for life, so that their actions are directed towards positive personal, communal and global development in all ramifications of life.

The period around 1990 marked significant changes for children and for ECCDE internationally. On November 20, 1989 the Convention on the Rights of the Child (CRC) was formally adopted by the United Nations General Assembly; signing commenced on January 26, 1990, and 61 countries signed the document that day. By September, 1990, 20 countries had ratified the Convention, bringing it into international law, hence UNICEF (2001) stated that it had been “ratified more quickly and by more countries than any previous human rights instrument.”

At the age of 0-8 years, the child definitely begins to become a ‘person’, hence the national policy on education also provides that appropriate levels of Government (State and Local) be required to establish and enforce educational laws that will ensure that established pre-primary schools are well-run, pre-primary teachers well qualified, and other appropriate academic infrastructure provided. Similarly, Ministries of Education are expected to ensure maintenance of high standards.

All these notwithstanding, it is important to highlight that if efforts are not made to evaluate the curriculum implementation of early childhood care development and education, the programme may face challenges just like the UPE programme not only in the North-West Geo-political zone of Nigeria but also throughout the country. Early years in life (0-8) are the most substantial to the formation of intelligence, personality and social behaviour of a child. Hence, the reason why this study sought to find out the challenges facing the ECCDE curriculum implementation from 2004-2015 in order to draw the attention of stakeholders for remedial actions to facilitate effective implementation of the programme in the zone.

1.2 Statement of the Problem

Effective implementation of the ECCDE curriculum requires various types of resources, which include physical facilities such as infrastructure, instructional and text materials, human resources and fund. However, it is a known fact that an appreciable number of the established pre-primary/nursery schools do not meet the conventional standards in terms of building, ventilation, sanitation, equipment, illumination and infrastructure. Other related problems are inadequacy of space, equipment and facilities that include classrooms, libraries, staff, laboratories and furniture. Most buildings in which some of the nursery schools are situated are far from ideal as some of them are not primarily meant for such institutions. Some of the schools are situated in dwelling houses or large halls and in some, face-to-face type of rooms are used as classrooms. Moreover, little consideration was given to site selection, accessibility, freedom from health and

noise hazards and physical safety. Some classrooms even led directly to the main road or to wide gutters.

Similarly a number of teachers in the pre-primary schools, apart from being inadequate, are not also qualified and majority of them have not received the special ECCDE teaching training programmes. In addition to the poor teaching methods are lack of materials such as toys, diagrams, charts, pictorials as part of instructional requirements. Other challenges include un-stimulating learning environments, preponderance of unqualified caregivers and high cost of education as well as exploitative and profiteering tendencies on the part of proprietors of ECCDE schools/centres.

Other challenges are the issue of minimum standard and lack of standard curriculum; the use of mother tongue as a medium of instruction in ECE; and funding as well as supervision of the programme in Nigeria. Additional challenges are the issue of monitoring and evaluation as well as the establishment and management of ECCDE schools. Therefore, the aim of this research is to evaluate the curriculum implementation of early childhood care development and education in North-West Geo-political zone of Nigeria and those resources that support and help its implementation in schools/centres of the selected States of Kano and Katsina.

1.3 Objectives of the Study

The objective of this study is to evaluate the implementation of early childhood care development and education curriculum in Kano and Katsina States. Specifically, the study seeks to:

1. assess whether the early childhood care development and education curriculum prepares children for primary education in North-West Geo-political zone of Nigeria;
2. determine the qualifications of ECCDE teachers and their accessibility to the specialization programmes in early childhood care development and education in North-West Geo-political zone of Nigeria;
3. examine whether the ECCDE centres environment meets the prescribed standards for teaching/caring and learning in North-West Geo-political zone of Nigeria;
4. ascertain the adequacy of provision of educational resources in the centres for early childhood care development and education in North-West Geo-political zone of Nigeria;
5. find out the influence of ECCDE monitoring and supervision by the States' Universal Basic Education Boards (SUBEBs) on the Local Government Education Authorities (LGEAs) in North-West Geo-political zone of Nigeria;
6. investigate the methods used by ECCDE teachers in implementing the ECCDE curriculum in North-West Geo-political zone of Nigeria; and

7. assess the academic performance of pupils who attended the ECCDE programme and those who did not in North-West Geo-political zone of Nigeria.

1.4 Research Questions

The main purpose of this research is to find answers to the following questions:

1. To what extent does the early childhood care development and education curriculum prepare children for primary education in North-West Geo-political zone of Nigeria?
2. What are the qualifications of ECCDE teachers and extent of their accessibility to the specialization programmes in early childhood care development and education in North-West Geo-political zone of Nigeria?
3. To what extent do the ECCDE environment meeting the prescribed standards for teaching/caring and learning in North-West Geo-political zone of Nigeria?
4. How adequate are the provisions of educational resources in the centres for early childhood care development and education in North-West Geo-political zone of Nigeria?
5. How has the ECCDE monitoring and supervision of the State Universal Basic Education Boards (SUBEBs) influence the Local Government Education Authorities (LGEAs) in North-West Geo-political zone of Nigeria?
6. What methods do ECCDE teachers use in implementing the ECCDE curriculum in North-West Geo-political zone of Nigeria?

7. What are the differences in the academic performance of pupils who attended the ECCDE programme and those who did not in North-West Geo-political zone of Nigeria?

1.5 Hypotheses

The following hypotheses were proposed based on the afore-mentioned research questions:

1. There is no significant difference in the opinions of respondents on the extent to which ECCDE prepares children for primary education in North-West Geo-political zone of Nigeria.
2. There is no significant relationship between the qualification of ECCDE teachers and their having access to the specialization programme in early childhood care development and education in North-West Geo-political zone of Nigeria.
3. There is no significant difference between the actual ECCDE environment and the prescribed standards for teaching/caring and learning in early childhood care development and education in North-West Geo-political zone of Nigeria.
4. There is no significant difference in the provision of adequate educational resources for early childhood care development and education in North-West Geo-political zone of Nigeria.
5. ECCDE monitoring and supervision by the State Universal Basic Education Boards (SUBEBs) has no significant influence on the Local Government Education Authorities (LGEAs) in North-West Geo-political zone of Nigeria.

6. There is no significant difference in the methods used by ECCDE teachers in implementing the ECCDE curriculum in North-West Geo-political zone of Nigeria.
7. There is no significant difference in the academic performance of pupils who attended the ECCDE programme and those who did not in North-West Geo-political zone of Nigeria.

1.6 Basic Assumptions

This research is predicated on the assumptions that:

1. Early Childhood Care Development and Education curriculum prepares children for primary education in North-West Geo-political zone of Nigeria.
2. ECCDE teachers are qualified and have access to the specialization programme in early childhood care development and education in North-West Geo-political zone of Nigeria.
3. ECCDE environment meets the prescribed standards for teaching/caring and learning in North-West Geo-political zone of Nigeria.
4. There is adequate provision of educational resources in the centres for early childhood care development and education in North-West Geo-political zone of Nigeria.
5. Monitoring and supervision by the State Universal Basic Education Boards in the Local Government Education Authorities influence the ECCDE staff in North West Geo-political zone of Nigeria.

6. Play is the main method of teaching in the ECCDE centres of the North-West Geo-political zone of Nigeria.
7. Pupils who attended ECCDE programme academically perform better than those who did not in the North-West Geo-political zone of Nigeria.

1.7 Significance of the Study

The purpose of any research is to make a significant contribution to knowledge. This research, therefore, makes a general evaluation of resources, which are very important and necessary for the successful implementation of early childhood care development and education curriculum in public schools/classes of Kano and Katsina States of Nigeria. The findings will be useful to curriculum planners and other stakeholders, such as the Federal Ministry of Education (FME), Universal Basic Education Commission (UBEC), the States Universal Education Boards (SUBEBs), Local Government Education Authorities (LGEAs), teachers, parents and Non-Governmental Organisations (NGOs) in guiding them to appreciate the significance of the programme as well as in the provision of resources required for the successful implementation of the ECCDE curriculum.

Furthermore, the research will bring to light the need for the authorities concerned to ensure that teachers involved in early childhood care development and education specialize in that field in order to achieve the objectives behind the programme. In the same vein, the findings will highlight to NGOs those States or LGEAs that need assistance in terms of provision/rehabilitation of infrastructures, instructional materials, teacher training and the like towards successful implementation of the

programme. In addition, the results will reveal to the States the needed resources in their various LGEAs or schools in order to promote the effective implementation of the ECCDE curriculum.

The findings of the research will draw the attention of the parents/guardians and the society at large to the crucial role the ECCDE programme plays in shaping the academic performance of children at the later stage of their educational development. This will further underscore the need to give priority and place emphasis by all and sundry on the programme, which can be termed as the “solid foundation of education”. Similarly, the outcome of the study will reveal to those States in the North-West Geopolitical zone of Nigeria, the LGEAs that are in need of resources both human and material, for the successful and effective implementation of the ECCDE programme. Finally, the research will highlight to those authorities that have roles to play in the implementation of the ECCDE programme such as UBEC, SUBEBs, LGEAs, NGOs, Schools/Centres, teachers and parents as well as the communities, the inadequacy or unavailability of resources facing the programme especially in their areas.

1.8 Scope of the Study

The Study is delimited to only public pre-primary schools that offer early childhood care development and education in the selected States of Kano and Katsina in the North-West Geo-political zone of Nigeria. This is to establish the extent to which the two States have complied with the specified standards of the Federal Republic of Nigeria’s National Policy on Education. Similarly, it focused mainly on the infrastructure, human and physical resources needed for the curriculum implementation

of Early Childhood Care Development and Education. Though, essential to the success of the implementation of ECCDE beyond the scope of this study, was the quality (qualification), quantity (number) of teachers and teacher-pupils ratio that is 25-30 pupils per teacher and a caregiver. The study also examined the roles of the participants in curriculum implementation namely, the Universal Basic Education Boards and the Local Government Education Authorities of the two States with specific reference to policy implementation.

CHAPTER TWO REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter contains theories and the review of literature considered relevant to the present study. It considered the identification, integration, application, critique, analysis and re-interpretation of known scholars to suit the research work. Specifically, areas examined were theoretical framework, and conceptual background of the study, which includes defining the concepts of evaluation, implementation, early childhood, early childhood care and education as well as curriculum. It also contains review of related literature in relation to ECCE curriculum content, teachers' qualification, training and experience, environment, instructional and educational resources, quality assurance and teaching methods. Similarly, it discussed empirical studies pertaining to the research and a summary.

2.2 Theoretical Framework

This subsection reviews related literature pertaining to the study under the following subheadings:

2.2.1 Piaget and Vygotsky' Theory:

The relationship between play and cognitive development is described differently in the two theories of cognitive development, which dominate early childhood and education-Piaget and Vygotsky's.

i. Play and Cognitive Development Theories:

Play is multifaceted as it changes constantly and unfolds differently in different settings. Piaget (1962), defined play as assimilation or the child's efforts to make environmental stimuli match his or her current concepts. Piagetian theory holds that play, in and of itself, does not necessarily result in the formation of new cognitive structures. Piaget claimed that play was just for pleasure, and while it allowed children to practice things they had previously learned, it did not necessarily result in the learning of new things. In other words, play reflects what the child has already learned but does not necessarily teach the child anything new. In this view, play is seen as a "process reflective of emerging symbolic development, but contributing little to it" (Johnsen and Christie, 1986). In contrast, Vygotsky (1978), stated that play actually facilitates cognitive development. Children not only practice what they already know but also learn new things. In discussing Vygotsky's theory, Vandenberg (1986), remarked that "play not so much reflects thought (as Piaget suggests) as it creates thought".

Observations of children at play yield examples to support both theories of Piaget and Vygotsky of play. A child who puts on a raincoat and a fire-fighter's hat and rushes to rescue his teddy bear from the pretend flames in his play house is practicing what he has previously learned about fire fighters-this supports Piaget's theory. On the other hand, a child in the block centre who announces to his teacher, "Look! When I put these two square blocks together, I get a rectangle!" has constructed new knowledge through her play-this supports Vygotsky's theory. Whether children are practicing what they have

learned in other settings or are constructing new knowledge, it is clear that play has a valuable role in the early childhood classroom.

Frost (1992), recommended that observing children at play should be a daily responsibility for early childhood professionals. Regular observations provide teachers with assessment information for identifying children with special needs, planning future play experiences, evaluating play materials, determining areas of strength and weakness for individual children, planning curriculum for individual children, reporting to parents, and checking on a child's on-going progress. The increased use of authentic assessment strategies is making observations of children's play more commonplace in early childhood classrooms.

Hymes (1981), recommended that children have two classrooms one indoors and one outdoors. The outdoor play environment should be used as an extension of the indoor classroom. It should be a learning environment as carefully planned as the indoor activity centres and should encourage motor and social skills as well as help children refine existing cognitive structures and construct new ones. Used in this way, the outdoor play environment provides a basis for observational assessments in all areas of development.

Fox (1993), researched the practicality of observing young children's cognitive development during outdoor play. Fox's observations of four- and five-year-old children during outdoor play found examples of addition and subtraction, shape identification, patterning, one-to-one correspondence, number sense, sequencing of events, use of

ordinal numbers, knowledge of prepositions, and identification of final and initial consonants.

Fox's outdoor observations also found multiple examples of problem-solving, creative thinking, social competence, language use, and gross and fine motor skills. Although outdoor observations do not replace classroom assessment, they can provide valuable information for teachers of young children. As Fox stated, "These observations can be performed unobtrusively, without intruding upon the children's activities and without placing children in a stressful testing situation".

ii. Importance of Play in Early Childhood Education

Play is an important and integral part of early childhood development hence, Jacob (2012), opined that the reason most students do not like school is not that, the work is too hard, but that it is utterly boring! Hence, he posited that play is very important at early childhood because it is a universal interdisciplinary process; a self-expressive activity based on imagination; an expression of cross-cultural theme- nurturing family relationship, roles; and a fundamental right of the child. It is also significant because it is free of expectations; free from failure and different at different ages, requiring different objects and activities at each age.

Jacob added that a young child's play in a departmental store differs from play in a classroom block corner, play at a beach or, in the case of children in Africa, a play beside the field in which mothers are working. Children generally play alone, with others, with objects and with their imaginations. To UBEC (2013), play is central in a child's life

because it is one major source of learning, growth and development. It is adventurous, free and spontaneous. Children have natural curiosity that motivates them to play. It therefore defined play as doing things for pleasure, to enjoy oneself rather than work. Similarly, play is an important vehicle for children's social, emotional and cognitive development. It is also a process that involves all of the child's senses: touching, feeling, hearing, seeing, and sometimes smelling-all of which stimulates development.

Against this background, the researcher is of the opinion that a stimulating environment, time, adequate and variety of materials should be provided to children to play with both at home and in the school due to the fact that play is multifaceted as it changes constantly and unfolds differently in different settings. Play, especially among children whether alone or in group, actively creates meaning in that they explore their environment. Play activities provide opportunities to dull and disable children. The early years are the most important for physical and brain development and therefore, opportunities to play are necessary and valuable which teachers, caregivers and parents should consider as important. In this regard, the adage that says "all work and no play makes Jack a dull boy" is very apt. Therefore, children have a right to relax and play, and to join in a wide range of cultural, artistic and other recreational activities.

2.2.2 Montessori Theory:

The theory of foundation principles and concepts of Montessori (1952), is adopted in this research because it can be applied across all ages. Similarly, the principles and concepts if properly used on children aged 0-8 years, a period considered to be the most important and significant for learning, would enhance teaching, caring and intellectual

development of the children. These principles that Montessori held in relation to children's education include Independence, Observation, Follow the Child, Correcting the Child, Prepared Environment and Absorbent Mind. Expanding on the principles, the Daily Montessori stated as follows:-

i. Independence:

“Never help a child with a task at which he feels he can succeed.” Montessori. It is always a goal of Montessori education in the classrooms to make the child independent and be able to do things for himself. This is achieved by giving children opportunities to move, to dress themselves, to choose what they want to do, and to help the adults with tasks. When children are able to do things for themselves, there is improvement in their selves, belief, self - confidence and esteem that they may carry on throughout their lives. This principle implies that children should be left to do what they feel they can do, choose what they are interested and have confidence in doing that particular task. As for the teacher, what he is expected to do is to provide children with materials, opportunity and freedom to express themselves.

ii. Observation:

Observation or watching the child is for parents and is easy to do. Countless hours can be spent just watching children and seeing how they are enjoying themselves, and exploring their environment. Observation is also the way adults can learn about what the child needs are. For example, if a child starts banging on objects, it means that he has a need for that gross motor activity, so give him a drum. If children are pushing things around the room and they need to walk but cannot do it themselves yet, help them or give

them a wagon to push. This is how observation can help create harmony, fulfilling the child's current needs.

This therefore shows that whenever a child starts to collect objects which to him serve as toys, parents/guardians or caregivers should encourage and support such behaviour. Similarly, such objects should be provided to the children and should not be thrown away unless by the children themselves. In addition, apart from at home, the school environment including the classroom should be adequately provided with a variety materials/objects which a child may choose from and play independently without discouraging him/her.

iii. **Following the Child:**

“Follow the child, they will show you what they need to do, what they need to develop in themselves and what area they need to be challenged in. The aim of the children who persevere in their work with an object is certainly not to “learn”; they are drawn to it by the needs of their inner life, which must be recognized and developed by its means.” From what one has observed from the actions of the children, he should follow them in what they need to do. If they want to climb, give them the opportunity to climb in a safe manner and do not be over-protective. Following the child also means being non-directive that is not telling them what to do all the time. Give the child the freedom to choose what he wants or needs to do and to act on his own. Do not tell them what they have to do, but rather present them with choices of different materials/toys.

In this context, apart from the parents, teachers and caregivers have an important role to play by following the children under their custody. Whether in the school compound or in the classroom, children must be followed and helped with materials or objects that they can choose from. They should not be told what to do or what to choose, rather provide them what they want and stand back to watch them unless the need for help arises before one should intervene.

iv. Correcting the Child:

Children make mistakes; they may spill something, drop food unintentionally and so on. There is no need for one to raise his voice in situations like these. Instead, calmly recognize the mistake and use the opportunity to work together with the child on some valid practical works. One will find that children do like to clean up as they see it as something adults do. There is no need to blatantly point out a child's mistake, there is a way to make them realize it. For example, with a cloth bib a child who is learning how to drink from a glass will find out that if he tips the glass a bit too early, the water will spill on him and he will feel it. If a child mispronounces a word, there is no need to correct him, but rather say the word correctly. Correcting children may result in them being scared to attempt anything for fear of making another mistake.

This shows that school children can be provided with an apron to paint with paint or water colours or cook through watching and without stopping or correcting them but praising what they are doing. It is worth stressing that children develop to realize their mistakes through frequent practice and watching the actions and performances of their colleagues.

v. Prepared Environment:

“The teacher’s first duty is to watch over the environment, and this takes precedence over all the rest. The prepared environment is important part of Montessori. It is the link for a child to learn from adults. Rooms are child sized with activities set up for success and allow freedom of movement and choice. The environment has to be safe for the child to explore freely;it has to be ready and beautiful for the children so it invites them to work.Their play is their work and they are still enjoying it. The development of the child is therefore dependent on the environment she or he is in, and this environment also includes the parents.

To my understanding, the environment where children live, play, study and sleep be it home or school, should be carefully organized and provided with all the things that would stimulate and arouse the interest of the children. Similarly, the physical environment where pupils play should have a wide space to enable them move freelyand should contain materials needed for physical exercises.On the other hand, the classroom arrangement should provide space for free movement, interaction and allows the teacher to see every corner from his/her seat.

vi. Absorbent Mind:

Montessori opined that children learned the language without anyone teaching them. This sparked her idea for the “absorbent mind”. Children under the age of three, do not need to have lessons in order to learn, they simply absorb everything in the environment by experiencing it, being part of it. It is therefore important that the

environmental set up is good, nice and positive since this is what the child will absorb whether he chooses to or not.

For the above reason, adults should be careful of what they say around children. Even though you think they are not listening, as they may not be able to express themselves yet, when they can, you will not want them swearing back at you. It is for this reason that one should not try to say “No” to a child so that they may not say “No” to us rudely. Instead, we say “Stop” when we want to tell children that what they are doing is wrong. From these statements, it is obvious that at the age of 0-3 years children have absorbent minds because they learn without any body teaching or asking them to learn or “repeat after me”.

The Montessori theory of foundation principles and concepts as earlier indicated, was adopted for this research because it is concerned with taking care of children from 0-8 years. In fact, the theory provides freedom to the child to critically think, manifest his innate abilities, develop better communication with his environment, parents and teachers. In a nutshell, these principles and concepts promote the intellectual, physical and mental growth of young children thereby preparing them for future challenges of life. Moreover, the fact that this study is evaluative, it would like to establish whether or not the ECCDE centres are organized and run according to the provisions of this theory.

2.2.3 Centre-Periphery Model

The implementation of any educational policy or programme requires processes such as planning, preparation and management to ensure its success. Yusuf (2012), in citing Schon stated that in the centre-periphery model, the innovative programmes are

developed by experts such as officials of ministries and examiners who act at the centre. The new ideas are then disseminated to schools for implementation and the success of the project depends on the effectiveness at the centre, the level of resources available, and how effectively the resources are well managed. Schon further identified the following factors that determine the success of the model:

- i. Way in which information moves from the periphery back to the centre.
- ii. Number of points at the periphery, and
- iii. Length of radii through which diffusion takes place, among others.

According to Ogbannaya (2005), in many countries the strategy in designing curriculum or making changes in an existing one matters. This is often seen as the job of the curriculum experts acting through the ministries of education. Teachers in schools and colleges are mere passive receivers of whatever is provided to them from the centre.

In the same vein, Guga and Bawa (2012), stated that in the centre-periphery model, either the government or an agency centrally controls the implementation. The experts that monitor the implementation, the resources required and the training facilities are all centrally controlled by the agency charged with the responsibility of implementation. In essence, what they are saying is that the experts that monitor the implementation, the resources required and the training facilities are all centrally controlled by the agency charged with the responsibility of implementation. Similarly the centre-periphery model assumes that the process of dissemination must be centrally controlled and managed. It is also to be assumed that innovation is planned and prepared in detail prior to its dissemination, and that the process of dissemination is one way-from

the centre out to the consumers on the periphery. This means that for an innovation or a programme such as curriculum to be implemented effectively, it must first be planned, prepared and then managed.

Furthermore, it can be deduced that the designing of curriculum or making changes to the existing one is done by experts through the ministry of education. On the other hand, the duty of teachers at whatever level is to implement what is given to them notwithstanding the fact that their views or inputs were not sought at the stage of designing the curriculum. Similarly, in the process of implementation, the teachers only break down the curriculum into scheme of work, prepare the lesson plan, decide on what to teach (topic), the method, materials, skills and strategies to apply.

Therefore, if the implementation of the curriculum by the teacher is effective, the whole objective or goals will be successfully achieved. Where it fails, the whole programme will also fail no matter how comprehensive the curriculum is or how experienced the experts who prepared it are.

Plan: Merriam-Webster (2015), referred to plan as a set of actions that have been thought of as a way to do or achieve something or something that a person intends to do. Similarly, Free Dictionary (2015), defined plan as an orderly or step-by-step conception or proposal for accomplishing an objective.

To the researcher's understanding however, plan could be defined as actions thought, the way to do them and how to achieve that them (programmes). In this context, it means the curriculum to be taught (implementation) must be planned to suit the level of

the students/pupils and enrich them with their needs as well as that of the society and the government in general. Plan can therefore be related to the curriculum plan, which guides the teachers in the implementation of the subjects or topics sequentially and for selection of the method, skills, material, time for each subject, period and even the time to spend on each step while teaching.

Prepare: Merriam-Webster (2015), referred to prepare as to make (someone or something) ready for some activity, purpose, and so forth, or to make yourself ready for something that you will be doing, something that you expect to happen, etc. or to make or create (something).

From the researcher's perspective, implementation process involves the way teachers prepare their lessons before class; all what is needed for the lesson to be successfully taught and understood by the pupils such as methods, instructional materials, strategies, skills and so forth are prepared by the teacher before class. Preparation can also be the training and re-training received or to be received by teachers through seminars, workshops or furthering their education.

All these, if acquired by a teacher, would make him/her prepare the lesson and implement it successfully. There is no gain saying the fact that teachers are most knowledgeable about the practice of teaching and therefore responsible for introducing the curriculum in the classroom. To make teachers more committed to an innovation, there is the need to enhance their knowledge of that particular programme.

Manage: What follows the preparation is management, which refers to how the programme should be monitored by the resource persons. In this context, the resource persons include the Head Teachers, the Quality Assurance Teams and Supervisors from UBEC, SUBEB and LGEA as the case may be.

Grobler (1998), while speaking in a school context was quoted as saying that the quality of management will contribute to the quality of life and standard of work of both teachers and learners. On one hand, Marsh (1992), regarded management as the ability of the principal to carry out developmental supervision and provide curriculum leadership in the school. On the other hand, Hoberg (1994), argued that instructional leadership implies that the principal as the manager of the school should provide a clear vision and direction and be able to delegate certain responsibilities to competent staff. Teachers can only perform their task of teaching successfully in a school that is effectively managed at every level. Westhuizer (1991), equally stated that guidance should be given so that all efforts in the school can be channeled correctly.

In the context of this study, the manager is the person who is assigned by the primary centre (LGEA) that is the Head Teacher to manage the activities of a school both academically and administratively. It is the responsibility of the manager to allocate subjects to teachers based on their areas of specialization. Moreover, he should also assign duties to competent staff that would assist him in seeing that all activities are carried out successfully and in order. These include ensuring that teachers prepare their lesson plans, lessons are carried out according to the timetable, and subjects are taught in line with the curriculum content. The effectiveness of the Centre-Periphery approach

according to Schon (1971), depended on several factors, which includes not only the strength of the central resources but also the number of points on the periphery that are to be reached, the length of the “spokes”, and the distance of these points from the centre.

Contextually, the central resources can be referred to as UBEC or SUBEBs; the spokes can be regarded as the LGEAs while the points on the periphery are the ECCDE Centres. The UBEC has the responsibility of providing the instructional materials and textbooks, organizing workshops and seminars for teachers as well as monitoring/coordinating the resources and programmes of all the SUBEBs.

On the other hand, the SUBEBs are responsible for the provision and maintenance of schools’ buildings, human and material resources, funding for quality assurance, training and retraining of staff. However, the points on the periphery are the schools where the activities or rather the programme (curriculum) is implemented while the spokes are the LGEAs whom the points are directly close to compared to their distance with the centre that is the UBEC and SUBEB. Similarly, there is need for effective communication channel, materials and adequate monitoring of feedback from the periphery.

2.2.4 Proliferation of Centre Model

To ensure successful implementation of any educational programme, there is need for coordination, management and supervision in order to overcome or at least minimise problems that might be associated with the effectiveness of its implementation. Therefore, the proliferation of centre model according to Schon (1971), attempted to overcome or reduce the significance of those factors associated with the effectiveness of the centre-

periphery model. This is through the creation of secondary centre to extend the reach and thus the efficiency of the primary centre. The intention is that the work of the central development team is supported and extended by local development groups. In turn, these local groups are supported by the central team through the provision not only of advice but also sometimes of courses of training.

To Guga and Bawa (2012), in proliferation of centre model, there should be both primary and secondary implementation centres. They asserted that the primary centres are responsible for managing the secondary centre through the provision of training materials and the resources needed. The secondary centres engage in diffusing or spreading the changes in their individual areas of control.

In this study, the primary centres are the UBEC/SUBEBS and the LGEAs that are responsible for managing and coordinating the affairs of the secondary centres (ECCDE centres). They provide the secondary centres with staff training, training materials and resources for effective and successful implementation of the curriculum at the individual areas under their jurisdiction (Kano and Katsina SUBEBs, 2014). On the other hand, according to the two SUBEBs, the secondary centre that is the LGEAs engages in diffusing or spreading the changes in their individual areas of control that is the ECCDE centres. Similarly, the secondary centre is responsible for distributing the resources provided by the primary centre and posting of staff (including those recruited by the SUBEBs) to various areas (schools). The secondary centre that is the UBEC/SUBEBS at their level also coordinate, monitor, and supervise the affairs of the individual areas (schools) and send feedback to the primary centres.

The Centre-Periphery and the Proliferation of Centre models are chosen for this research due to their relevance. The centre-periphery model is relevant to Nigeria's educational system in relation to planning, preparation and management as every educational programme must pass through these stages. This is due to the fact that in Nigeria, for any curriculum to be implemented it must be a plan first followed by preparation of the infrastructure including recruitment of personnel both teaching and non-teaching, provision of furniture and instructional materials and so forth. The managing in this context includes coordination, quality assurance of the schools at the primary centre by the Ministry, Commission, State Board and LGEA as the case may be. The Head Teachers at the secondary centre are the Chief Executives who are responsible for seeing that all activities are successfully implemented with the cooperation of their subordinates in the school and the support of those from outside such as the UBEC, SUBEB and LGEA.

In the Proliferation of Centre model, the various bodies in the hierarchy that run and maintain the affairs of the centres/schools such as UBEC, SUBEB and LGEA are the primary centres while the secondary centres refer to the centres/schools where the curriculum is implemented. Each centre, whether primary or secondary, must function effectively in carrying out its duties be it the provision of learning resources, employment of teachers and other personnel, enrolment of pupils/students, coordination, and quality assurance in order to achieve the stated goals.

According to Schon (1971), when the network of communication of money, men, information and materials is inadequate to the demands imposed on it, the innovation

suffers a setback sometimes ending in total collapse. Similarly, lack of qualified or inadequacy of teachers, improper utilization or inadequacy of physical and material resources constitutes hindrance to the implementation of educational programmes. However, researchers have made many recommendations and suggestions, which were rarely considered.

In a nutshell, the centre-periphery and the proliferation of centre models if properly applied by both the SUBEBs and LGEAs would lead to effective and successful implementation of the curriculum. This could be achieved through planning and provision of educational resources such as infrastructure, recruitment of personnel and distribution of instructional materials by UBEC to SUBEBs or by the SUBEBs to the LGEAs or by the LGEAs to the centres. Similarly, the models could be applied in coordinating, monitoring and supervision of the LGEAs by the SUBEBs and or the centres by the LGEAs through quality assurance on the centres by both authorities for effective and successful implementation of the ECCDE programme. However, it is worth stressing that if implementation fails at any level, the whole programme would fail- meaning both the objectives and general goals would not be achieved.

2.3 Concepts:

i. Evaluation:

Evaluation according to Obioma (2001), is the process of obtaining value judgment regarding the extent to which the set targets are achieved. It is also a process of determining value or judgment regarding the extent to which targeted objectives of a programme are achieved or not. To Kizlik (2014), evaluation is “value”. Is also engaging

in some process that is designed to provide information that will help us to make a judgement about a given situations. Lawan (2011), on his part defined evaluation as the terminus of a continuous process. Smith (2006), evaluation is the systematic exploration and judgement of working processes, experiences and outcomes. It pays special attention to aims, values, perceptions, needs and resources. To them the following things that need to be said are as follows.

Firstly, Guga and Bawa (2012), stated that evaluation entails gathering, ordering and making judgments about information in a methodical way. It is a research process. Secondly, evaluation is something more than monitoring. Monitoring is largely about ‘watching’ or keeping track and may well involve things like performance indicators. Evaluation involves making careful judgements about the worth, significance and meaning of phenomenon. Thirdly, evaluation is very sophisticated. There is no simple way of making good judgements. It involves, for example, developing criteria or standards that are both meaningful and honour the work and those involved. Fourthly, evaluation operates at a number of levels. It is used to explore and judge practice and programmes and projects.

Last but not the least, they concluded that evaluation if it is to have any meaning must look at the people involved, the processes and any outcomes we can identify. Appreciating and getting of flavour of these involves dialogue. This makes the focus enquiry rather than measurement – although some measurement might be involved. The result has to be an emphasis upon negotiation and consensus concerning the process of evaluation, and the conclusions reached.

To Rogers and Smith (2006), evaluation is basically either about proving something is working or needed or improving practice or a project. Rogers and Smith asserted that there are two forms of evaluation, namely, “Formative and Summative evaluation.”

- a. **Formative evaluation:** enable people and agencies make judgements about the work undertaken; to identify their knowledge, attitudes and skills, and to understand the changes that have occurred in these; and to increase their ability to assess their learning and performance.
- b. **Summative evaluation:** on the other hand, enable people and agencies to demonstrate that they have fulfilled the objectives of the programme or project, or to demonstrate they have achieved the standard required.

ii. **Implementation:**

To Wikipedia (2015), implementation is realization of an application, or execution of a plan, idea, model, design, specification, standard, algorithm, or policy. From another perspective, Fixson, Blasé, Friedman and Wallace (2005), defined implementation as a specified set of activities designed to put into practice or activity or program of known dimensions. According to this definition implementation processes are purposeful and are described in sufficient details such that independent observers can detect the presence and strength of the specific set of activities related to implementation. In addition, the activities or programme being implemented is described in sufficient detail so that independent observers can detect its presence and strength. In the words of Buoro (2000), it involves putting curriculum to work, considering the processes necessary to accomplish the predicted behavioral outcome in the learner. Suleiman

(2012), however, posited that implementation is the Achilles of educational planning asserting that even when a plan is rational, comprehensive and coherent, its implementation may well be partial, slow and inefficient and the end-result may even be inferior to what has been expected in the absence of a plan.

To my understanding and based on these definitions, implementation involves translating the general goals and objectives of a policy or programme based on the teacher's specific behavioral objectives for concrete achievements through execution of various activities. It may also suffice to say that implementation simply means translating things such as policy, programme, or any activity into action or practice. Furthermore, effective implementation is a key to the successful achievement of a programme.

iii. Early Childhood Care Development and Education:

Quality education at early childhood helps children develop their potential, intellectual development and promotes their social, physical, emotional, and cognitive development. UNESCO (2014), stated that early childhood is defined as the period from birth to eight (0-8) years old. It is a time of remarkable brain growth, and these years lay the foundation for subsequent learning and development. To UNICEF (2014), early childhood, which spans the period up to 8 years of age, is critical for cognitive, social, emotional, and physical development. During these years, a child's newly developing brain is highly plastic and responsive to change as billions of integrated neural circuits are established through the interaction of genetics, environment and experience. Thus, optimal brain development requires a stimulating environment, adequate nutrients and social interaction with attentive caregivers. Cherry (2015), on the other hand, sees early

childhood as a time of remarkable physical, cognitive, social and emotional development. Infants enter the world with a limited range of skills and abilities. Watching a child develop new motor, cognitive, language and social skills is a source of wonder for parents and caregivers.

- a. **Early Childhood Education:** Swartout (2015), stated that it consists of activities and/or experiences that are intended to effect developmental changes in children prior to their entry into elementary school. Swartout also stated that early childhood education (ECE) programmes include any type of educational programme that serves children in the preschool years and is designed to improve later school performance.

- b. **Early Childhood Care and Education:** Zafeirakon (2015), stated that 40% of children in the developing world live in extreme poverty and 10.5 million children under 5 years of age die from preventable diseases each year. He argued that investing in quality early childhood care and education can improve their well-being and close the education and poverty gap. To Zafeirakon, young children, especially the poorest and most disadvantaged, who benefit from ECCDE services, are more likely to be healthy, ready to learn, and stay longer and perform better in school.

Education.com also posited that the quality of the early childhood education a child receives has a direct impact on positive child development in language and mathematics skills, as well as social and behavioural skills. While this quality can be delivered in a variety of settings, from family child care homes to public school

programmes to private preschools, there are certain characteristics that distinguish high quality early learning settings. These are as follows:

1. **Well-educated and caring teachers:** Early childhood research draws a direct line between programme qualities, the amount of specialized early childhood training a teacher has received, and adequate compensation (which reduces turnover).
2. **Programme quality standards:** They address programme quality, as well as child health and safety.
3. **Curriculum and activities:** Many different “curricula” or teaching approaches can create an enriched learning environment for children. Some core quality characteristics include:
 - a. **Well-planned:** Whether a pre-designed model or home grown, a curriculum should reflect current research on child development and it should include specific learning goals for children. Well-planned learning activities can also be embodied in a particular philosophy or approach to early childhood education.
 - b. **Based on a child’s developmental needs:** Activities, materials and schedules should be appropriate to a child’s age and support all three key developmental domains – cognitive (language development and problem-solving skills), physical (gross/fine motor development) and social emotional (interactions with others in a group) to children’s overall development.
 - c. **Balanced:** A good curriculum provides a balance of play and structured activities, teacher-initiated and child-initiated exploration.

iv. Curriculum:

Ebert, Ebert and Bentley (2013), curriculum refers to the means and materials with which students will interact for the purpose of achieving identified educational outcomes adding that curriculum is based upon the study of grammar, rhetoric, and logic. Agusiobo (2003), stated that curriculum is an organized framework that sets out the content that children are to learn; the processes through which the curriculum are set for them; it is what evaluators do to help children to achieve these goals and the context in which teaching and learning occurs.

According to Henson (2001), curriculum is a Latin word that originally means 'race course'. Traditionally, the term means a list of courses but over the years, different people have different perceptions about it. For some people, curriculum has been equated with a plan for learning. Henson also brought up a list of conceptions in defining curriculum as being interpreted by different people as; a programme of study, set of subjects, a course of study, a content, that which is taught in school, a sequence of courses, the curriculum is a set of materials, a set of performance objectives, all activities that goes in the school and or, all experiences received as a result of schooling.

However, from these it can be concluded that curriculum is broadly designed as the totality of student experiences that occur in the educational process. The term often specifically refers to a planned sequence of instruction, or to a view of the student's experiences in terms of the educator's or a school's instructional goals.

To Yusuf (2012), curriculum is a planned programme of learning opportunities aimed at achieving broad goals and related objectives adding that it could be viewed from different dimensions. Firstly, it is an arrangement of materials of instruction, extending over a

considerable period of time and planned for a specific group of students/pupils. Secondly, it is the interchange between students, faculty and subject matter. Lastly, it is the subject matter taught to students; - a sequence of experiences set up by the school to discipline students in a group; a means to facilitate the growth of students and the planned engagement outcomes. Yusuf further opined that curriculum is the art and science of what is planned for and done in and outside the school for the purpose of effective teaching and learning.

From these definitions, it can be concluded that curriculum is all that is planned to be taught by the teacher/facilitator to the students/learners at whatever level in and outside school. It can also be considered as all the courses planned for specific group of students/learners for a specific period (graduation or certificate).

v. Curriculum Implementation:

Hargreaves (2000), identified four areas which characterize the multi-dimensional nature of educational change namely, politics, contexts, emotions, and chaos/complexity. Ifeyinwa (2007), argued that when curriculum content is adequately implemented with the appropriate materials needed for it, a lot is achieved in the learner adding that a learner who is well grounded in appropriate skills and competences became not only effective but also competent and contented individual in his life. What is to be taught and how it should be taught may be referred to as curriculum.

Buoro (2000), deemed curriculum implementation as part of the process, which involves determining whether the school has or has not received the recommended materials, determining whether it is being used, and assessing teachers and student

attitudes and understanding in relation to the desired outcomes. Buoro also stated that curriculum implementation involves putting curriculum to work, considering the process necessary to accomplish and predict behavioral outcomes in the learner.

Anwuka (2001), stated that the extent to which a curriculum is implemented in the classroom is associated with the teacher involvement in the process. One cannot assume that teacher involvement in curriculum development assures successful implementation, but it is obvious that when curriculum innovations are alien or threatening to most teachers, no matter how realistic they are in addressing issues of the contemporary world, they often fail at implementation stage. Anwuka further stated that the extent to which a curriculum is implemented in the classroom is associated with the teacher involvement in the process.

Suleiman (2012), stated that teachers, either fail to understand what the curriculum actually demands of them, or they just refused to make a genuine commitment to ensuring its success. The best or poorest designed curriculum owes its ultimate success or failure to the quality of the teachers own planning and implementation. This provides a challenge to the curriculum worker and if the curriculum grows out of teacher experience then personality phenomenon in its implementation will be minimized.

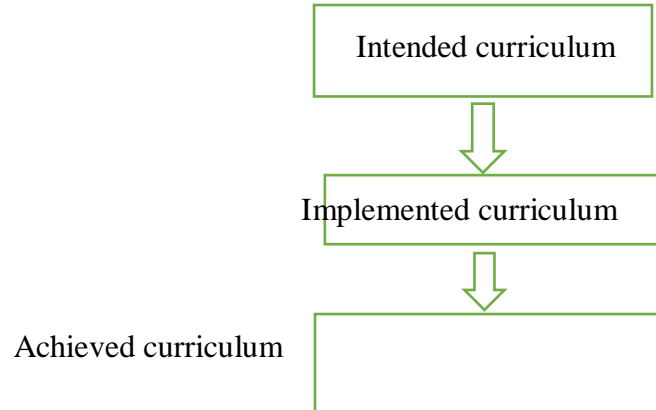
Doggoh (2007), defined curriculum implementation as the curriculum “the process of putting into actual practice, what has been planned in the curriculum document”. Onyeachu (2008), defined curriculum implementation as the process of putting all that have been planned as a curriculum document into practice in the classroom through the combined efforts of the teachers, learners, school administrators,

parents as well as interaction with physical facilities, instructional materials psychological and social environment.

Okebukola (2004), defined curriculum implementation as the “translation of the objectives of the curriculum from paper to practice” pointing out that the process begins when the curriculum is handed over to the teacher and ends when the learners have been exposed to the learning experiences prescribed by the curriculum. The activities of curriculum implementation includes practical work such as experiments, interaction (student-teacher, student-student, student-materials) workshops, field trips, lectures, and evaluation which is normally followed by feedback.

The success of any curriculum implementation is dependent on the teachers’ behavior and attitudes such as dedication, hard-work, interest, commitment and possessing the required knowledge of the subject matter. This is normally manifested through the students/learners performances. When the content of the curriculum is translated and successfully imparted to the learner, positive performance will be the result as illustrated in Figure 2.1.

Fig. 2.1: Diagram on Curriculum Implementation



From the foregoing, it can therefore be concluded that teachers must play a more significant role in designing the curriculum. They must also be involved in curriculum planning and development so that they can implement and modify the curriculum for the benefit of their learners. Moreover, to my understanding, curriculum implementation at whatever level, no matter how perfect it is planned and designed, cannot be effectively delivered without effective resources especially in relation to the age and ability of the pupils/students. The next important stage after curriculum planning and designing is its implementation. Similarly, the general goals and behavioral objectives, which the teacher intends to achieve through the implementation of the planned lesson are both achieved by the use of effective resources. However, a hard-working and cooperative staff makes curriculum implementation relatively an easy task.

In addition, the successes of any educational programmes are often associated with the type of policy provisions and efficiency in the implementation of such policy. Similarly, the effectiveness of the policy in advancing national development and

productivity, the institutional arrangements put in place as well as the educational opportunities provided for the citizens to actualize the policy content also justify its success. Managing the educational system in Nigeria according to Onyene (2005), required high conceptual technical and critical planning, through the usage of veritable policy initiation, strategies and effective implementation mechanism. Therefore, changes in the NPE were necessitated by some policy innovations and the need to update the former one.

It is pertinent to note that one major way of actualizing the goal and ensuring that the child's development is holistic, is the development of the capacity of the personnel handling him. It is only when the teachers/caregivers have the competencies of effectively educating the child at the pre-primary school level that the objectives and purpose of ECCDE as enumerated in the NPE (2013), will be realized. To this end, the Universal Basic Education Commission, having realized the necessity of capacity development of the teachers/caregivers in ECCDE, invested in the development of a specific manual. The manual is for the training of the teachers/caregivers as well as helpers in public and private ECCDE centers and contains the basic knowledge needed to effectively handle children in such places.

2.4 Curriculum Content of ECCDE

The curriculum at the pre-primary level according to MOETrinidad and Tobago (2006), is broad, and the range of subjects offered is quite wide. It focuses on English language, mathematics (arithmetic), Nigerian languages, writing, reading, rhymes, social studies, music, singing, and elementary science/nature study. At this level, six 30-minute

periods per week are devoted to the teaching of English and it is the maximum number of weekly periods for any subject. Another subject that is given prominence in the pre-primary school programme is mathematics/arithmetic for which five periods are allocated to this subject per week. On the average, children spend one 30-minute period every day learning mathematics. Topics like counting, recognition of numbers, addition and subtraction are also taught. This gives an important start in the acquisition of numeracy.

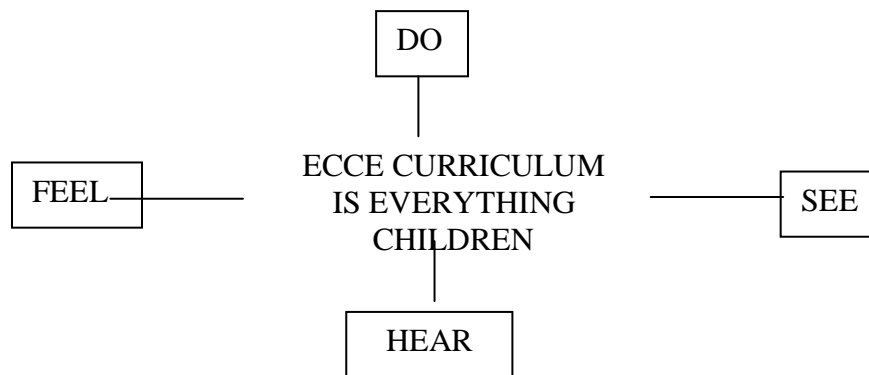
Similarly, three periods are allocated to each of these subjects: moral and religious instruction, writing, reading, drawing, rhymes, elementary science/nature study, social studies, handicraft and music /singing. Moreover, two periods are allocated to the local language. On the average, instructional time consists of twenty-eight teaching periods per week. The medium of instruction at this level is principally the mother tongue, or the language of the immediate community. The evaluation system is essentially based on continuous assessment. Continuous assessment is conceived as a cumulative record of the child's performance in various fields throughout his or her school career obtained through tests, quizzes and so forth.

The curriculum in early childhood programmes gives children the opportunity to master information and practice the skills that they need in order to function effectively in the society. The early childhood curriculum emphasizes content that is connected to real world experiences, values, hopes, dreams, and expectations of families and communities. Young children are active contributors to the curriculum. In sum, they are the basic subjects for the subject matters taught in the early childhood settings. Examples of the curriculum content in Ghanaian ECCDE centres include pre-number activity,

creativity, language and literacy, environmental studies, physical education, music and dance, psychosocial skills, which cut across all subject areas.

To Gordon and Browne (2004), early childhood care and education (ECCE) curriculum, whether planned or unplanned is everything children do, see, hear and feel as illustrated in Figure 2.2.

Fig. 2.2: ECCE Curriculum Content



According to MOE Trinidad and Tobago (2006), this statement influenced the content of curriculum guide. Children are at the center of early childhood education and all the decisions about pedagogy are governed by the needs of children, their families and communities. The early children period is a time of rapid growth and development and during this period, the foundation for future learning is being laid and the dispositions required for the pursuit of lifelong learning are being formulated. It is therefore critical that the learning experiences to which children are exposed during this period are developmentally appropriate, culturally relevant and meaningful in the context of how young children learn.

2.4.1 Curriculum Content and Pedagogy for Children

During the International Conference on Early Childhood Education Development held in Ghana, UNICEF (2010), asserted that all the learning experiences of the child whether consciously or unconsciously is termed as curriculum. Curriculum is all that is taught in a school including the time tabled subjects and all those aspects of life that exercise an influence in the life of the pupil. Similarly, it encompasses all the learning that is planned or guided by the school whether it is carried in groups or individually inside or outside the school. To MOE Trinidad and Tobago (2006), the context of the curriculum is made up of people and provision and gives children access to quality programmes.

Based on the above characteristics, children must be provided with opportunities to imagine, explore, hypothesize, investigate, interact and solve problems. They must also be provided with opportunities that would make them to think critically, construct and co-construct new understandings of their worlds as they are supported in a nurturing environment.

2.4.2 Curriculum Guidelines for Nigerian Pre-Primary Schools

The Nigerian curriculum content of ECCDE prepares children for further education especially the primary education which is believed to be the foundation of all levels of education. To find out the adequacy and effectiveness of the ECCDE curriculum in preparing children for primary education, the research reviewed the NERDC (2008), Curriculum Guidelines with specific reference to mathematics, language and communication; scientific and reflective thinking; physical and health education; and

creative arts. Highlighting on mathematics and materials to support its learning, NERDC further stated thus:

- i. **Mathematics Skills:** these are skills that enable children at the age of three (3) years to be able to recognise and name primary colours and shape; sort by colours and shapes; recognise number symbols from 1 to 5 and count up to 10. To achieve the objectives, the teaching aids required are number cards, beads, bead frames, bricks, bottle tops, used match sticks, seeds, counting sticks, wooden cubes and so on, number songs, rhymes, stories and games.

At the age of four (4) years, the children should be able to build on the educational gains made at the 3- year old level; count to 50; identify number symbols from 1 to 20; and do simple addition using the number symbols 1 to 5. The teaching aids required at this level for the attainment of the stated objectives are sticks, bottle tops, stones, seeds, desks, chairs, tables, pencils, books, cups, saucers, spoons, forks, toys, boys, girls and so forth. Others are picture-matching cards showing one-to-one correspondence, measuring tape, buckets, cups, bowls, calabashes, water, sand, sawdust and so on.

At the age of five (5) years, children should be able to build on the educational gains made at the 4 -year old level by counting up to 100; identifying number symbols from 1 to 50; doing simple addition and subtraction using the number symbols 1 to 9; and reciting the days of the week. To achieve the objectives, the teaching aids required are charts, diagrams, number cards, pictures, simple mathematics books and calendars.

ii. **Language and Communication Skills:** NERDC (2008), provides that at the age of three (3) years, children should be able to communicate with others, recite rhymes, sing songs, recognise and name colours and objects in the home and at school, scribble, form patterns as well as trace letters of the alphabet and recognise the letters of the alphabet. To achieve the stated objectives, the essential teaching aids needed are nursery rhyme books, picture books prepared by the Teacher, chalkboard or slates, old newspaper, kitchen paper, charcoal, chalk, crayons, pencils, paint, home corner and large pictures.

In the case of children aged four (4) years, they should be able to build on the educational gains made at the 3-year old level, tell stories, identify pictures of objects, associate pictures with words, write own names and write some words. To attain the stated objectives however, the teaching aids to be made available should include crayons, pencils, paper, chalk, charcoal, sand, blackboard, activity and workbooks encouraging left-to-right and top-to-bottom orientation, a children's library, charts, diagrams, pictures, objects, calendars, magazines, old books, posters, and so forth for illustration.

For the five (5) years old, the objectives are to build on the educational gains made at the 4-year old level, the child to express himself clearly, tell simple stories, read simple picture books and copy simple sentences. The teaching aids required at this level are various types of music, collections of stories, poems, rhymes, pictures, interesting objects, newspapers, and other items that stimulate language use and reading and writing, plenty of picture/word and sentence cards, language games, work books and worksheets.

iii. Scientific and Reflective Thinking: The objective according to NERDC (2008), as it affects children aged three (3) years is to enable them to observe nature, for example, flowers, leaves, animals and the weather. For this purpose, pictures of flowers, leaves, animals, the sun, clouds, rain, the moon and stars should be provided as teaching aids.

On the four (4) years old, the objectives are to enable them build on the educational gains made at the 3 year old level; and demonstrate awareness about nature. The teaching aids needed to achieve the objectives are school grounds that should provide opportunities for the study of nature; and a science corner that should be well stocked with specimens of animals, plants, birds, insects, fish, and paper boats, wood, stones and so forth.

In the case of children aged five (5) years, the objectives are to build on the educational gains made at the 4 -year old level; identify living and non-living things and observe their characteristics; and carry out simple experiments and make observations and name a few machines used for transport and name some machines used in the home and on the farm. The teaching aids required are the materials for the children to carry out simple experiments, real specimens (plants, animals, insects, rocks, pieces of wood and so on) or pictures; charts to teach the children how to identify living and non-living things; pictures and specimens of various types of soil; pictures of a variety of machines; and class science and nature corner with exhibits clearly labelled.

iv. Physical and Health Education: According to NERDC the objectives behind its teaching to children aged three (3) years are to enable them to form good health

habits; and take part in some physical activities. The teaching aids required for the purpose include pictures and charts showing good health habits, tyres, hoops, bean-bags, bouncing balls, skittles, slides, swings, cane mats, skipping ropes, foam, wooden tunnel, wooden boxes, ladder, play equipment and suitable songs for various exercises.

For children aged four (4) years, the objectives are to enable them to build on the educational gains made at the 3-year old level; develop gross motor skills; develop fine motor skills; and demonstrate good health habits. The teaching aids needed to achieve the objectives are the appropriate apparatus for the development of gross motor skills and fine motor skills such as swings, tyres, tunnels, climbing apparatus, balls, slides, beans bags; and songs, jingles and rhymes that teach good health and safety habits, posters and health charts, filmstrips and slides. Others are video cassettes that motivate children to observe good health habits, a well-stocked first aid box and a sick room where possible, wash-hand basins, a wash room, soap, and other equipment for the teaching of good habits.

On teaching Physical and Health Education to children aged five (5) years, NERDC further stated that the objectives behind that are to enable them to build on the educational gains made at the 4-year old level; take part in sports; help keep their surrounding clean, observe safety rules; and observe good health habits. The required teaching aids for the attainment of the afore-mentioned objectives are football, skipping rope, hoops, balls, local games materials and so forth. Others include pictures and charts showing home and school safety rules,

brooms, duster, dustbin, dustpan, posters to illustrate road safety rules, pictures and charts showing good health habits.

- v. **Creative Arts:** For children aged three (3) years, NERDC indicated that the objectives behind its teaching are to enable them scribble, draw and paint, dance to a variety of music and take part in creative activities. The teaching aids required are paints, crayons, charcoal, chalk, pencils, tables, brushes, containers, songs and music.

For the 4-year old, the child should be able to build on the educational gains made at the 3-year old level, draw and paint, model, participate in simple drama, singing and dancing. The needed teaching aids include a home corner that should be well stocked with old clothes, jewelry, shoes, handbags, household items (brooms, pots and pans) and to allow for dramatic play. Similarly, there should be local musical instruments, tape recorder, record player, crayons, marking pens, chalk, charcoal, paint, dye, brushes, paper, pencils, glue, pictures from old magazines, books, calendars, clay, plasticine and so on.

For the 5-year old, the child should be able to build on the educational gains made at the 4 year old level, make collages, construct things, make his own picture books, take part in drama, sing and dance. The teaching aids required to attain the objectives are used beads, beans, rice, sand, cowry shells, egg shells, stone, paint, glue and so forth for making patterns and pictures. For music and dance, the teacher should provide simple musical instruments like drums, tambourines, gongs, and the like. For dramatic plays, materials such as clothes, jewelry, shoes, handbags, plates, spoons and so on should be collected by the

teacher while the Home Corner should be used for drama. Similarly, paint, crayons, paper, pencils, chalk and charcoal for drawing, colouring and painting should be provided. For construction, building blocks, cartons, boxes, bamboo, raffia, straw and so forth should be made available.

- vi. Social Norms:** For children aged four (4) years, NERDC indicated that the objectives behind its teaching is to enable the child to build on the educational gains made at the 3-year old level; talk about himself and his family; talk about his school; participate in cultural dances, songs and games; and use socially accepted expressions when addressing others. The teaching aids required include folklore, folktales, local songs, games and dances; charts, posters and diagrams while parents can be invited to come to the classroom and talk about their occupations. Moreover, projects can be carried out relating to special days/events and pictorial displays can be set up showing various aspects of different cultures.

For the 5-year old, the child should be able to build on the educational gains made at the 4-year old level; talk about his neighborhood; talk about some ceremonies and festivals in his locality; develop basic moral behavior; and sing the National Anthem, say the National Pledge and recognize the National Flag. The teaching aids needed to attain the objectives are charts, posters, pictures, photographs, paint, crayons, clay and plasticine that can be used to depict various scenes in the neighborhood. Furthermore, dramatic plays, stories, rhymes, folktales, poems and pictures or posters displaying the National Anthem, Pledge and Flag can all be used to teach cultural values. Similarly,

inviting people to talk about themselves and their places of work with pictures, drawing or models of uniforms or materials used by them is another teaching aid.

On the other hand, UBEC (2013), identified the required teaching materials for English and Mathematics at the ECCDE level to include bottle tops, sea shells, balance scales, attribute blocks, colored beads, three dimensional blocks (cubes, cylinder, cones), geo-board, fruits (like oranges), unifix cubes (representing hundreds and tens), colors, cuisenaire rods and measuring items (ruler, tape, measure, string or ribbon, blocks). Others include picture books, story books, materials for drawing, word card, envelopes, posters depicting living creatures, picture dictionary, audio materials, and books made by the children themselves.

UBEC further highlighted that the teaching materials needed for physical development include pull up rope, slide, merry-go-round, swing, skipping ropes and so on. For cognitive development, the necessary materials are counters, building blocks, clay and so forth while swings, slides, pull-up ropes and so on are required for emotional development. In order to have social development at the ECCDE level, balls of different sizes, tricycles, rocking horses among others are required. From another perspective, Jacob (2012), identified climbers, swings, sports field, sports equipment, bicycles, jump ropes, balls, movable items (boxes, plastic crates) and storage shed as the requirements for outdoor play.

2.5 Factors that Promote Effective Teaching

The NERDC (2008), assumed that a trained teacher in nursery education would be employed to teach in the nursery school and such teacher would be regularly exposed

to new ideas in child study, child psychology and method of teaching children and so on, through initial training, in-service training, summer course and refresher course. This is because the lives of children are so precious that they cannot be entrusted into the hands of untrained, ignorant and unknowledgeable staff. Thus, the assistance of universities, teacher training institutes, colleges of education and so on can be sought in setting up training programmes for nursery school staff.

In the same vein, Obinna (2007), opined that effective and skillful teaching, guide the learning process indicating that the basic factors that promote effective teaching and curriculum implementation include teachers skills in planning and presentation; classroom discipline and management; teacher participation in extra curriculum activities; cooperation with school authorities; concern for learners; initiative, dedication and resourcefulness. These can further be summarized under three broad areas of job motivation and satisfaction; teachers training and qualification; and teacher participation in decision- making.

i. Job Motivation and Satisfaction:

Job motivation and satisfaction are generally recognised as important to everyworker. Olufunke (2008),therefore emphasized that “motivation” influence significantly on job performance of workers more especially the teachers.To Doggoh (2014), the teacher is an educationist who underwent pedagogical training including a good knowledge of the principles and practice of education in addition to his teaching subject(s) or discipline. Aggrawal (2006), stated that “we are convinced that the most important factor in educational reconstruction is the teacher.”Jega (2007), said Nigerians

have always wanted a good quality education which is based on quality and is accessible to all. This learning of the nation can be achieved by ECCDE through adequate motivation and retention of their teachers (all other things being equal).

Similarly, Cambridge (2015), opined that supporting teachers in their professional development leads to improvement of the learners outcomes. Good-quality training and reflective professional development are essential parts of routines for teachers according to their experience and needs, ranging from subject-specific training to professional development qualification. They added that professional development and training supports teachers to become confident. The satisfaction that teachers enjoy is a function of the degree of needs derived or experienced in the profession. It may not be easy to measure or quantify job satisfaction in teaching.

However, Obinna (2007), mentioned that the teacher no longer seems to believe that his reward is in heaven; and from every indication, like any other worker, he would like to begin to enjoy his reward here and now. Therefore, every attempt must be made by curriculum and educational planners in finding out how best to encourage him to stay on the job. Teacher job satisfaction is the answer. Obinna further stated that job motivation and satisfaction in teaching is both a cause and source of pleasure, fulfillment and gratification or any combination of psychological, physiological and environmental circumstances that can enhance emotional stability and morale of the teacher. When this is complete in the teacher, he begins to evaluate and conscientiously assess to what extent he has achieved the goals and objectives of the curriculum. This will make him aspire to do more and maximize productivity. Teachers' morale can be affected by both internal and external factors. Examples of internal factors include good salary and allowances,

condition of service, fringe benefits, a conducive working environment and security. External factors on the other hand include things that occur outside the teaching job. In addition, the teachers' role in moral, socio-economic, political and technological growth cannot be over-emphasized. Therefore, no government policy on education can succeed without the teacher.

ii. Teachers Training and Qualification:

On teachers training and qualification the NPE (2013), rightly stipulated that all teachers in all levels of the educational system will be professionally trained to equip them for the effective performance of their duties. It is believed that training for most teachers in Nigeria is inadequate. Obanya (2002), stated that majority of teachers in our schools in Nigeria are ill-prepared to teach due to lack of proper knowledge of the subject matter as well as the methodologies peculiar to teaching the subject. However, if the educational system is expected not to rise above the quality of its teachers, the teacher education should aim at providing teachers with intellectual and professional background adequate for their assignment and to make them adaptable to any changing situation both in their immediate and wide environment.

iii. Teacher Participation in Decision Making:

The participation of teachers in decision making bordering on education matters is very important for the attainment of the desired objectives. Fafunwa (1974), cited in Suleiman (2012), stated that no government policy on education can be realized if it does not at the initial stage, perceive problems and opportunities before initiating a decision-making process. The teacher is in the best position and most qualified resource person to

be consulted. In most cases however, the teacher is deliberately neglected when major decisions on education and matters concerning his welfare are taken. Suleiman added that this ugly situation has tragic and negative consequences on curriculum implementation. It will be recalled that as early as 1936, increments were withheld and levies imposed on the salary of teachers by missions controlling and providing education in Nigeria. This led to the first teachers strike and from that period, there was a drift away from teaching profession, which towards the end of the decade assumed serious proportions.

On the extent to which a curriculum is implemented in the classroom Anwuka (2001), stated that it is associated with the teacher involvement in the process. One cannot assume that teacher involvement in curriculum development assures successful implementation, but it is obvious that when curriculum innovations are alien or threatening to most teachers, no matter how realistic they are in addressing issues of the contemporary world, they often fail at implementation stage. This provides a challenge to the curriculum worker but if the curriculum grows out of the teachers experience then personality phenomenon in its implementation will be minimized.

iv. Quality and Qualification of Teachers:

The importance and significance of quality and qualification of teachers in the implementation of education programme cannot be over emphasized. According to Ifeyinwa (2004), the quality of the teachers determines the strength of any educational system and the value of the learners. In Nigerian early childhood institutions today, the teacher quality is generally low. It is only a few of the nursery schools especially those owned by educational institutions, private companies and wealthy individuals that can

afford to engage the services of university graduate teachers and holders of Nigerian Certificate in Education (NCE) qualifications, competent and committed teachers and are also capable of retaining such teachers. Ifeyinwa added that most others employ a few NCE teachers (if any at all), who are usually underpaid, while others employ mainly Grade Two teachers and secondary school leavers with school Certificate or General Certificate (ordinary level) qualification. In a situation where most of the teachers in the early childhood institutions are unqualified and/or unprofessional, effective teaching and learning cannot be achieved.

From another perspective, edutopia.com (2015), stated that great teachers help create great students. In fact, research shows that an inspiring and informed teacher is the most important school-related factor influencing student achievement, so it is critical to pay close attention to how we train and support both new and experienced educators. The best teacher-preparation programmes emphasize subject-matter mastery and provide many opportunities for student teachers to spend time in real classrooms under the supervision of an experienced mentor.

v. In-Service, Conferences, Seminars and Workshops

In-service, conferences, seminars and workshops are services which if teachers were opportune with would upgrade their professional knowledge and thus improve teaching and learning and upgrade the profession.

- a. In-service:** is going on for or continuing with studies while one is employed and is receiving his salary. According to Wiktionary (2015), in-service means to train or educate someone while they are working, to give

‘‘on –the –job’’ training. Nworgu (2001), defines in-service training as a process for continued updating of teachers’ knowledge, skills and interest in their chosen field.

- b. Conferences:** they are mostly annual or bi-annual meetings of professional associations. During this meeting, papers are presented by experts and distributed/shared to audience. Doggoh (2014), stated that conferences serve as opportunities for members to update their professional knowledge and to be kept abreast with current trends in their professions. In education particularly, these papers deal with reports of research findings on educational issues and practices.
- c. Seminars:** they are organized for a particular group of professionals to equip or inform them on certain issues or developments that are relevant to their daily functions/duties. Wikipedia (2015), opined that a seminar is, generally, a form of academic instruction, either at an academic institution or offered by a commercial or professional organization. It has the function of bringing together small groups for recurring meetings, focusing each time on some particular subject, in which everyone present is requested to actively participate.

From the above definitions it can be clearly understand that seminars are organized on quality pedagogical delivery and they normally create room for professionals to interact and brain storm together on issues and challenges in their profession with a view to finding solutions.

- d. Workshops:** Doggoh (2007), stated that workshops are planned sessions for discussions and practical work mostly on a particular subject. During this forum, people having the same knowledge of subject matter or profession share their knowledge and experience on a particular subject, topic or issues(s) to improve and upgrade themselves.

However, to the researchers' view of point, in-service training programmes for ECCDE teachers are aimed at developing the teachers in their area of specialization based on its knowledge, skills, methods and strategies with particular reference to the followings:

1. Appropriate methods of teaching at ECCDE classes
2. Preparing of lesson note
3. Improvisation
4. Selection of appropriate materials
5. Organizing and arrangement of classrooms
6. Administration of first aid to injured pupils
7. Training of the care givers and so forth.

Perhaps, it is worth emphasizing that if ECCDE teachers benefit from the aforementioned ranging from job satisfaction down to in-service training, they will be qualitative and professionally committed. Moreover, they will be in a better position to immensely contribute to the achievement of the general objectives of the ECCDE programme.

v. Challenges in Teacher Education

Curriculum restructuring and knowledge production in teacher training institutions should be responsive to social interest and need with the core goal of becoming powerhouses that produce knowledgeable, competent, skilled and socially committed teachers as well as disseminating knowledge. Adeleke (2005), stated that the teacher education in Nigeria is challenged to produce, through research and teaching programmes, the knowledge and manpower that will enable the nation to engage proactively and creatively with globalization and participate in the highly competitive global economy.

In the same vein, Badat(2004),stated that the ability of teacher training institutions to become intellectual and knowledge powerhouses depends primarily on high quality teaching/learning and research programmes. Quality in terms of institutions meeting minimum standards of learning and teaching, providing minimum criteria with respect to programmes and qualifications offered, and a constant drive to improve and enhance quality beyond the minimum requirements, is therefore vital if our institutions are to make meaningful contributions to societal equity and development.Quality education begins with the teacher who is acclaimed to be the determinant of quality education. If he/she is to do that, he/she must be well trained and professionally qualified. Thus, every teacher training institution should focus on quality programmes.

2.6 Environment

Learning environment is a combination of social and physical qualities that create the classroom experience (Firestone, 2004). It includes classroom management procedures, as well as the way the space is organized, furnished and maintained. To Edglossary (2013), learning environment refers to the diverse physical location, contexts, and culture in which students learn. Since students learn in a variety of settings, such as outside-of-school locations and outdoor environments, the term is often used as a more accurate or preferred alternative to classroom, which has more limited and traditional connotations-a room with rows of desks and a chalkboard, for example.

i. Features of an Effective Centre

The main features of an effective ECCDE centre according to Aleshin (2012), were; location/environment, acceptable to community and be a walking distance, safe, secure, fenced and free from excessive noise. Others were play-ground and classroom that is well ventilated with enough space for 20-25 children and for interaction with children, sitting arrangement should be flexible to allow interaction with children. Similarly, there should be enough toilets appropriate to pupil's age and access to potable water, furniture: child-sized chair (one per child and one round table per four children), caregiver's table/chair and wall Clock.

NERDC (2007), however, defined the features as follows:

ii. Location:

A place that is acceptable to the community (a home, community buildings such as civic centres, churches, mosques and existing schools or a purpose built structure etc.

- a. **Acceptable to Community:** that is within walking distance from home- a maximum of two (2) kilometers.
- b. **Safe and Secure Environment:** free from chemical and other hazards including free from excessive noise.
- c. **Play-ground:** should have enough space for children to play (enough to take 20-25 children and two adult at a given time). It should also be safe and secured, and may have grass or sand but not bushy or dirty; not waterlogged and free from dangerous objects.
- d. **Fencing:** the facility should be fenced in a manner that prevents outsider interference such as rampaging animals, and prevent children from straying outside. Fencing can be done with concrete, mud, bamboo, raffia, corn stalk, wood, flowers hedge, plants.

iii. Safe Environment and Physical Setting

The environment of an ECCDE centre should provide the child with a sense of well-being, belonging, security, and freedom from fear and ensure that equipment and the physical structure are regularly maintained and cleaned. According to Jacob (2012), the environment and physical space should be free from physical hazards, including unsafe

equipment, pollution, and violence. It should also provide basic sanitation, safe nutritious food, potable water, adequate ventilation, and promotes good health practices.

On other hand, MOE Trinidad and Tobago (2006), the physical environment must be equipped with a wide variety of bountiful materials available on open shelves for children's use. These must include art materials, design supplies and materials and tools that offer many possibilities for children's creations. Materials could be found outside the classrooms, but they must be within the children's everyday experiences and they must promote language and thinking. MOE further asserted that effective learning environments for three and four-year-olds can best be facilitated by providing learning centres or interest areas. Learning centres help children to choose and focus on particular activities, giving them the freedom to pursue these activities on their own. Such hands-on-experiences are meaningful and relevant for their development. When working in learning centres, young children manipulate materials, make choices, develop confidence in their problem solving abilities, expand their oral language, enhance their creative abilities as well as develop social skills and emotional competence as they interact with others. Teachers must ensure that the space is organized to create a place of beauty, welcome and empower parents, encourage community, be used as a place for listening and conversation, challenge children to explore and learn and encourage staff communication and reflection

Additionally, through working in these centres, children understand each other, develop responsibility, learn how to make plans and carry them to completion. Furthermore, they can move into more advanced play, develop a longer attention span, enhance their self-image, integrate learning and understand symbols as they use concrete

items in these centres. Among the learning materials that can be included are: blocks and manipulative, creative arts, language and literacy, dramatic play, sand and water play, computer and discovery/exploration.

iv. Developmentally Stimulating Environment:

The environment of an ECCDE centre should be developmentally and stimulating to arouse pupils interest to attend school. Jacob (20012),stated that the environment should have opportunities for frequent and positive child-adult interactions, stimulate the child to play, explore and discover. Moreover, it should have opportunities for children to engage in active play and movement, and be aesthetically pleasing and attractive to the child; have a variety of colors, texture, surfaces, visual dimensions and perspectives.

v. Classroom:

As stipulated by NERDC (2007), the classroom should have the following features:

- a. **Size:** enough space and be 16 square meters to accommodate 20-25 children. It has to be well ventilated with at least two doors and is designed to allow for free movement. Similarly, the sitting arrangements should not be rigid like in formal school setting but flexible and allow for plan and interaction with other children.
- b. **Flooring of the classroom-** smooth but not slippery and has to be plastered with cement or with local material excluding cow dung and such harmful materials.

- c. **Roof:** corrugated iron sheets or thatch or raffia etc. should be used and not leaking.
- a. **Ceiling:** modern ceiling boards, raffia, bamboo, wood, mats, thick cartons etc. should be used but excluding asbestos ceiling boards.
- b. **Walls:** cement blocks, bricks, mud, raffia, bamboo etc. should be used.
- c. **Illumination:** well illuminated so that children are able to see clearly in every part of the room.
- d. **Doors:** wooden or iron that can be locked.
- e. **Corners:** for science, health and nutrition, drama, shopping, sleeping.
- f. **Furniture:** Child-sized chair (one per child) and one round table per four (4) children.
- j. **Mats:** locally made beds, mattresses covered with Macintosh and Bed sheets.
- k. **Chalkboard:** movable or fixed.
- l. Gender-neutral IECD charts/posters/pictures and children's work should be fixed on the wall.
- m. **Cupboards and shelves:** for children items (enough to hold 25 children's items example, water bottles, food, bags).
- n. Caregiver table or shelf.
- o. Wall clock.

On regard to this issue Jacob (2012), elaborated that the teacher should consider the following while arranging the classroom: Creation of traffic zones for easy movement, organize the room to see every location to ensure children's safety, arrange space for individual, small and group work, provide individual space and for storing personal

belongings and label space with names and if possible photos. It should also include children's home language in the signs and labels in the classroom, display classroom rules at children's eye level, display classroom picture at children's eye level as well as schedule and curriculum plans for adults.

In organizing materials in the classroom, Jacob also suggested as that materials on low and open shelves to promote accessibility and independence should be display, use containers to hold materials and toys, have a designated place for everything in the classroom. Label storage places for items that are not rotated out of the room and display children's work prominently at eye level and change display regularly.

Based on the foregoing, one can argue that environment plays a significant role in the implementation of curriculum. In its full or partial absence, teaching/learning would not be fully or even achieved at all. For instance, where there is no workshop, the teaching of technical subjects will be nearly impossible. Similarly, where there are no sports field, the teaching of physical education such as games and sport like wrestling and football would be impossible because they all need physical training (practical). Additionally, physical environment and location of the school, health, child protection, proper nutrition, and parents/community interest towards education contributes to effective curriculum implementation.

2.7 Resources for Effective Curriculum Implementation

For an effective implementation of a curriculum there is the need of various types of resources. These include physical facilities such as classrooms, laboratories, workshops, sports field and its equipment, furniture and recreational facilities. Guga and Bawa (2012), stated that “the resources also include teaching materials, which teachers use in their classroom while teaching. These include real objects like flowers, insects and animals, etc. charts such as pictures, graphs, maps and so on, chalkboard and audio visuals such as radio, television and computer. All these are basic tools for effective teaching. However, when these are inadequate or lacking, curriculum would not be implemented effectively. Text materials such as books, magazines are also very important. These can be in the form of hard texts or soft texts obtained from the libraries or internet. They help us read the minds of others on what we are studying or teaching. They also help in sharing ideas across the globe.”

Other resources identified include funds in order to finance various school projects such as purchasing of books, equipment used in laboratories, running of workshops, toiletry materials and the like. The provision of these eases teaching and learning. A disciplined and a hardworking student population is also an important resource for effective curriculum implementation. Disciplined students are those who attend lessons punctually and do their assignments promptly. Similarly, a hardworking, dedicated, qualified (professional) and cooperative staff, especially the teachers make curriculum implementation a relatively easy task.

2.7.1 Participants in Curriculum Implementation

In implementing the curriculum, a number of participants are involved. To this end, Guga and Bawa (2012), stated that curriculum engages many participants that are grouped broadly into two: participants outside and those inside the school. The participants outside include the Institutes of Education, Education Commissions and Boards, Federal Government's education-controlled bodies like National Teachers Institute (NTI), Nigerian Educational Research and Development Council (NERDC), Joint Admissions and Matriculation Board (JAMB), West African Examination Council (WAEC), National Universities Commission (NUC) and the National Commission for Colleges of Education (NCCE). The bodies are engaged in research work, training of personnel, planning and production of materials as well as facilitation of any introduced change.

2.7.2 Participants outside the School

The participants outside the school environment in relation to early childhood care development and education within the context of this study, include among others, the Universal Basic Education Commission (UBEC), State Universal Basic Education Board (SUBEB), and the Local Government Education Authority (LGEA).

i. Universal Basic Education Commission

The Universal Basic Education Commission (UBEC) was formally established on 7th October 2004 (Olaniyan and Obadara 2008). The UBE Act 2004 makes provision for basic education comprising of ECCDE, Primary and Junior Secondary Education. The financing of basic education is the responsibility of States and Local Governments.

However, the Federal Government decided to intervene in the provision of basic education with 2% of its Consolidated Revenue Fund. For States to fully benefit from the Fund, criteria were established which they have to comply with. They also pointed out that the Act establishing the Commission mandated it to co-ordinate the implementation of the Universal Basic Education programme at the State and Local Government levels through the State Universal Basic Education Board (SUBEB) of each State and the Local Government Education Authorities (LGEAs).

UBEC online, stated that the vision of the Commission is to be a world class education intervention and regulatory agency for the promotion of uniform, qualitative and functional basic education in Nigeria. Similarly, its mission is to operate as an intervention, coordinating and monitoring Agency to progressively improve the capacity of States, Local Government Agencies and communities in the provision of unfettered access to high qualitative basic education in the country. Furthermore, the scope of the UBEC is to conduct programmes and initiatives for early childhood care and education, six-year Primary Education, and three (3) years of Junior Secondary Education. UBEC online also highlighted the following as the objectives of the UBE programme:

1. Ensuring unfettered access to nine (9) years of formal basic education.
2. The provision of free, Universal Basic Education for every Nigerian child of school going age.
3. Reducing drastically, the incidence of drop-out from the formal school system, through improved relevance, quality and efficiency

4. Ensuring the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civic values needed for laying a solid foundation for life-long learning.

ii. State Universal Basic Education Board

According to Suleiman (2012), the Primary Schools Management Board (PSMB) at the State level was set up in 1988 and by 1994, it became the State Primary Education Board (SPEB). However, with the launching of the Universal Basic Education Programme (UBEP) in September 1999, SPEB metamorphosed into the State Universal Basic Education Board (SUBEB), which is charged with the following functions:

1. Management of early childhood care centers, primary schools, nomadic schools and junior secondary schools;
2. Recruitment, appointment, promotion and discipline of teaching and non-teaching staff on Grade Level 07 and above;
3. Posting and deployment of staff including inter-state transfers;
4. Disbursement of funds provided to it from both the Federal and State sources;
5. Inspect nomadic primary and junior secondary schools including private and voluntary agency school as contained in Act No.66 of 4th August,2004.
6. Retirements and re-absorption of teaching and non-teaching staff on Grade Level 07 and above;
7. Undertaking new capital project;
8. Responsible for approval of training and retraining of teaching and non-teaching staff on Grade Level 07 and above;

9. Assessment and funding of salaries and allowances of teaching and non-teaching staff based on the scheme of service drawn by various State administrators;
10. Ensure that annual reports are rendered by Education Secretaries; Heads of Schools on the teachers appointed to serve under them;
11. Preparing testimonials and certificates of service for the teaching and non-teaching staff where necessary;
12. Dealing with leave matters including annual vacation; and
13. Ensuring annual auditing of accounts.

iii. Local Government Education Authority

The roles and responsibilities of the Local Government as indicated by Suleiman (2012), were carried out through the Local Government Education Authority (LGEA). The duties are initiate and execute specific projects for the attainment of the objectives of the scheme; assist in providing the infrastructure and other requirements for the scheme and co-ordinate, supervise, monitor and evaluate the implementation of the scheme in the local government. It also sensitize and mobilize the target groups, parents and other stakeholders for their effective involvement and participation as well as fulfill its financial obligations and support needed for the effective implementation of the scheme and ensure probity, transparency and accountability for all monies allocated for the scheme.

2.7.3 Participants within the School

From another perspective, UBEC (2013), indicated that the participants within the school organization includes the students/learners, supportive staff such as the Head Teacher, teachers, security staff, the Parents-Teachers Association (PTA) and Caregiver in the case of ECCDE schools or classes.

i. Students/ Learners:

Guga and Bawa (2012), the learners form the focus of any curriculum implementation and they are partners in implementing the curriculum. As the teacher teaches, the students/learners provide a feedback to the teacher on the effectiveness of his methods and approaches to teaching. Based on such feedback, the teacher decides on whether to continue, review or completely change his method of teaching. Besides, students as participants in curriculum implementation, help in keeping the environment clean, participate in co-curricular activities like sports, form relevant class groups and sometimes as student leaders, help to maintain law and order.

To Yusuf (2012), the learner is at the centre of any educational programme. She added that curriculum planning must be given adequate consideration to the learner. The whole idea of curriculum planning and development will be meaningless if the learners who are directly involved in the curriculum implementation process are not taken into account.

ii. Head Teacher:

To Bello (2003), headmaster is a school manager who has a number of functions which include orienting, controlling, developing, assimilating, placing and evaluating the

school personnel for the attainment of the school goals. He further identified the following:

1. The school manager should assist teachers to improve through organizing workshops and seminars in the school on the skills that they are lacking such as lesson plan, scheme of work, marking attendance registers, test construction, scoring etc.
2. The headmaster (manager) can present before the resource person so invited example, problems of inadequacies of materials facing the school in terms of teaching and learning.

From my experience, a head teacher can be a school principal, head-teacher, headmaster and or headmistress that is the most senior teacher, leader and manager of a school. Similarly, a head teacher is the linkage between the school and the LGEA. This is because he/she brings in and out the followings:

- i. He interprets the government policies to the teachers in his/her school from the SUBEB, Zone or LGEA.
- ii. He/she assigns duties to teachers, especially subject allocation, which if properly done, would lead to better achievement of the curriculum.
- iii. He/she maintains and control discipline among teachers and between teachers and students.
- iv. He/she ensures cooperation exist between the parents and teachers and other staff in the school.

- v. He/she also ensures cordial relationship exist between the school and the community in which they live.

iii. Classroom Teachers:

Hohmann and Weikart (2002), said that the teacher is primarily a curriculum developer. As curriculum developers, teachers must understand that curriculum development is a complex process requiring a commitment to a broad-based educational philosophy; extensive knowledge of human growth and development; practical experience with children and an understanding of their interest; and an ability to consolidate and interpret an ever-expanding body of research about teaching and learning.

MOE Trinidad and Tobago (2006), therefore asserted that the teacher as enactor/enabler of the curriculum will be expected to fulfil various roles in ensuring that curriculum standards are attained and maintained. During the processes of building relationships, scaffolding children's learning, planning for and assessing learning and engaging in lifelong learning themselves, teachers will function, among others, as partners, negotiators, collaborators, practitioners, communicators, creators, supporters and observers. In addition, they will serve as recorders, researchers, listeners, reflectors, evaluators/assessors, problem-solvers, models and facilitators.

Hanga (2007), a teacher is a person who imparts knowledge to his/her pupils or students at any level whether formal or informal. In formal school, he/she is the one who implements the planned and organized curriculum through methods and techniques. For one to be a teacher he/she has to undergo a training programme in order to possess the

required knowledge and skills that would qualify him/her to be a teacher. Yusuf (2012), also opined that the teacher is the heartbeat of the curriculum. For a teacher to be effective and efficient in the performance of his duties, he/she must have good knowledge of the subject matter. She added that teacher's qualification is his/her experience and perception of his/her role in the teaching/learning process.

However, to my understanding, the classroom teacher forms the 'cornerstone' in curriculum implementation. It is well known that it is the classroom teacher who decides on what to teach and at what time, even when some kind of teaching scheme have been prepared in advance for him. He interprets the syllabus and breaks it into teaching schemes and lesson plans. He decides on what instructional materials to use, the methodology to adopt, the length of time to spend on each aspect and equipment or time to use. Within the context of this research, an ECCDE teacher is the one who possess the minimum teaching certificate that is Nigeria Certificate in Education (NCE).

iv. Teacher-Pupil Ratio

Concerning teacher-pupil ratio, Sooter (2013), stated that the policy position of 1:25 is not implemented due to lack of supervision or monitoring. Indeed, since businessmen/women dominates this education sector, profit maximization is their main concern. As such, employing more teachers to maintain this ratio is not beneficial to them, hence, early childhood institutions have a ratio that depends on available children. This goes further to explain the accommodation problem at this educational level. According to Tor-Anyiin (2008), although higher institutions are now offering early childhood education courses, Government non-encouragement in terms of scholarship

and teachers' poor financial remuneration is blocking many of the opportunities to go for such courses and help man the institutions. Indeed, since, the proprietors are money conscious their payment is not encouraging to warrant many people take to the study of early childhood education.

v. Caregiver:

UBEC (2013),the caregiver is someone designated by either SUBEB, LGEA, School Based Management Committee (SBMC), and or PTA to provide care, stimulate, protect, guide, and supervise children in and outside the classroom. The caregiver should be a trained person and preferably a female. He/she should be interested in understanding the children he/she relates with and their cultural contexts. He/she must possess desirable personal attributes such as love, affection, warmth, patience, tolerance, the ability to respond to the children's needs and interests, etc. The major role of the Caregiver is providing love, care and support to the child. He/she should also ensure safety of the child, encourage democratic practices by ensuring active participation of both the boys and girls as well as understand developmental "teachable moment" or "red flag alert" in children as they grow.

As stipulated by NERDC National Minimum Standards (2007), the Caregiver for 0-3 year old children should be someone with basic literacy and aged not less than 21 years. In the case of children aged 3-5 years, the Caregiver should preferably be a holder of the Nigerian Certificate in Education (NCE), retired Nurse, Teacher; other educated retirees or anyone with at least Senior Secondary School certificate and not be less than 21 years old.

From another vantage, Aleshin (2012), suggested the following as part of the human resources requirement for ECCDE:

1. A Caregiver and one Helper for 20-25 pupils aged 0-3years or 30-35 pupils aged 3-5years.
2. The Caregivers and Helpers should be medically fit, committed and trustworthy.
3. Update and refresher course for Caregivers and Helpers to be organized from time to time.
4. Provision of security.

vi. Nursery Assistants/Teachers' Aides:

NERDC Curriculum Guidelines (2008), these teachers are integral part of nursery school staffing. Their function is not to teach but to assist during class and group activities and to supervise children during outdoor play, at meals or while in the toilet. Their constant presence helps to provide adult contact, which is psychologically and socially desirable for children at this stage of their development. Consequently, nursery assistants must possess inexhaustible patience and a genuine passion and liking for little children. This category of staff should have a minimum of the First School Leaving Certificate and be trained in child care and management. They should also be able to render simple first aid to children.

vii. Security Staff:

Security to UBEC (2013), is the act of protecting the child from threat, danger, injury or loss. Safety on the other hand, are the efforts to reduce physical (injuries such as cut, broken bones), physical (communicable illnesses, hunger) and psychological

(discrimination, stigmatization) risks and harms. The assurance of security and safety encourages holistic development of the child. Accidents happening in ECCDE environment can inflict wound and cause damage to a child permanently. It is the responsibility of the Caregiver to provide and maintain accident free learning environment to reduce risks and hazards.

viii. Parents-Teachers Association

Olatoye and Ogunkola, (2008), urged that parent-teacher association (PTA) has been rigorously advocated in Nigeria in recent years, which aims at the promotion of parents involvement to enhance the educational outcomes of students. The number of PTAs has been increasing and they have contributed directly or indirectly towards students' academic achievements. From my experience, the Parents-Teachers Association (PTA) is a body that consists of parents and teachers who collectively donate funds and materials of any kind that are useful in carrying out a school's programme.

2.7.4 Infrastructural Facilities

NERDC (2008), the modern concept of nursery education is that the entire school environment, be it human and material, including buildings, play fields, teachers, and other workers are part of the learning environment for the child. To the nursery school child, the school is a home away from home. School architecture has become an important aspect of nursery education. Special attention should therefore be focused on school design in such a way that children will have ample space that is safe for play, work, and rest. Various types of learning centres should be provided (example, science corner, reading corner, home corner, and art corner). The school should be neat and

attractive with plenty of open space for children to explore. The NERDC (2008), expatiated the followings:

i. School Library:

Each nursery school according to NERDC (2008), should endeavour to develop a well- stocked library with books, magazines and teaching aids. Apart from meeting the needs of the children, the library provides an important resource/reference centre for the teachers. Therefore, the support of parents should be sought in collecting suitable books and materials for the library.

ii. Health Care in the Nursery School:

It is important for each nursery school to have a well-stocked first aid box and a trained nurse on its staff. Ideally, nursery school should have government doctors and nurses who come periodically to examine the pupils as part of the school health service. It is also recommended that proprietors of nursery schools with large number of children should build, staff and stock their own health clinic with ample provisions to deal with general and emergency cases. Parents are generally known to cooperate in respecting the health care of their children. Each nursery school should endeavour to place priority on health care and maintain children's health records.

iii. Learning Materials:

Each nursery school should have a teaching resource centre where teaching aids, audio-visual materials, posters, charts, artefacts and so on can be stored. It can be in a section of the library. With a programme of regular collection, the resources centre can become well stocked within a few years. Teachers will find the resource centre helpful

whenever they need some materials (at short notice) to teach particular topics. Special storage facilities and display space should be provided while materials should be clearly labelled for easy identification.

From another vantage, UBEC (2013), stipulated that at the ECCDE level, educators/ caregivers should use local and natural materials as resources for teaching and learning. Similarly, adequate curriculum materials and equipment that are appropriate to the children's special needs and that maintain the integrity of their own culture, such as art, music, dance, and drama should be provided.

2.7.5 Instructional Materials

For an effective and successful implementation of any curriculum, there is the need for adequate and relevant materials. Therefore, for the implementation of early childhood education, the NPE (2013), posited that Government should:

- a). Set and monitor minimum standard for centres.
- b). Develop and disseminate curriculum materials i.e. the Integrated Early Childhood Development Policy, National Minimum Standards for the establishment of Centres, Curriculum, Implementation Guidelines and other materials that will enhance the implementation of ECCDE.
- c). Encourage both community and private efforts in the establishment of ECCDE section based on set standards.
- d). Make provision in teacher education programmes for specialization in ECCDE and for retraining of teachers.

- e). Ensure that the curriculum of teacher education is oriented towards play-way method.
- f). Ensure that that ECCDE centres adopt a caregiver-infant ratio of 1:10 in a Crèche and 1:25 in a Nursery.
- g). Develop suitable ECCDE curriculum for nationwide implementation.
- h). Supervise and control quality of ECCDE institutions.
- i). Make provision for the production and effective utilization of learning and instructional materials in adequate numbers.
- j). Ensure that the medium of instruction is principally the mother tongue or the language of the immediate community and to this end, will develop the orthography of more Nigerian languages, produce textbooks, supplementary readers and other instructional materials in Nigerian languages.

Aleshin (2012), identified the required materials in an ECCDE Centre to include IECD Policy, Curriculum, Caregiver's manual, toy's making manual, chalk/black board, slate/cardboard, radio and television. Others were charts and colorful posters, flash cards, lego building blocks, counter/abacus, pencils, crayons, coloring, paints, brushes and drawing book (one set per child) and pupils' reading and writing materials (one per child).

On the other hand, the NERDC Minimum Standards (2007), stated that Curriculum (Government approved), Caregivers' Manual, Teachers' Guide (one set), time table (one per class), chalk/blackboard, slates/cardboard, and Teachers note book (lesson note) were the requirements in an ECCDE Centre. Others were radio (one per class), charts and

poster colour (variety), flash cards (as many as possible), lego building blocks (1 dozen per 5 children), Counters/Abacus (5 per class), pencils, crayons, paints, brushes and drawing book (one per child). Similarly, musical instruments such as flutes, drum, whistles and other local musical instruments (one set per class); gender-neutral IEC charts/posters/pictures, children's works on the wall were also essential in an ECCDE centre.

i. Materials/Activities

One can define an outdoor play as a play that takes place outside the classroom or within the school compound. This type of activities helps in physical development of the pupils and encourages bodily sensation and movements through walking, running, jumping, pushing, pulling, throwing, catching, dancing, outing etc. Outdoor play is a natural preventive measure against excessive accumulation and storage of fat in children's body. On the required equipment/materials pertaining to outdoor play, UBEC (2013), stipulated them to include swings, slides, merry-go-round, bar, water boat, sandpit, rocking horse, skipping rope, mat, clay/paper mache and climbing frame

From another perspective, Itoro (2012), stated that there were two types of outdoor equipment namely, hard and soft. The hard ones were rocking boat, slides, pit/box, see-saw and under the shed space for storytelling, tricycles, rocking horse and the like. On the other hand, the soft outdoor equipment included dolls, teddy bear and fabrics for feeling.

On the materials needed for indoor play, UBEC (2013), indicated them as building blocks, table top materials- counters, beads, straws, writing materials, clay/plaster cine, items for buying and selling, empty tins, packets, plastic and bottles. Others were dolls,

tricycle, mats and mattresses, abacus, wooden blocks, sand trays, water bowls and cardboards/old newspapers as well as paints, crayon, brush and so forth. UBEC further stated that there were groups of indoor play activities suitable for children in an ECCDE Centre such as buying and selling in shopping corners, and identification of concepts in the learning corners and so on. Similarly, selection of activities should be done depending on classroom size and available resources. Caregivers should also encourage free choice of materials and activities for play.

MOE Trinidad and Tobago(2006), active learning involves thinking, investigating, experimenting, discussing and responding. Three and four-year-old children gain knowledge, skills, dispositions and feelings as they construct personal understandings about phenomena they encounter while they are actively engaged in their environment, interacting with people, a variety of materials and representations. It further opined that positive relationships with people and the relevance of activities to children's lives and interests foster positive feelings, while many dispositions are shaped during the active play experiences based on the teacher's positive feedback and their encouragement to question, investigate, and innovate as they learn.

2.8 Coordination and Management Issue in ECCDE

To ensure the successful implementation of early childhood care development and education in Nigeria, the NPE (2013), posited that an integrated approach has been adopted for the care and support given to children aged 0-5 years. This is a holistic approach in which various stakeholders are expected to intervene. This therefore required

the involvement of different hands at all levels including the establishment of National, State and Local Government IECD Coordinating Committees. Major responsibilities of these committees, whose memberships were spelt out, include among others:

- a. Sensitization and mobilization of stakeholders to ensure collective participation in the IECD process.
- b. Make recommendations to all stakeholders to guarantee appropriate budgetary provisions.
- c. Monitoring and ensuring participatory and community based implementation of IECD policy.
- d. Facilitate the institutionalization of research for continuous and participatory baseline data generation by all stakeholders in the IECD implementation process.
- e. Identifying IECD needs in communities and initiating appropriate self-help interventions.

2.8.1 Management, Monitoring and Supervision

Sooter (2013), stated that no educational plan however excellent it may be, can be effectively implemented if the school supervision is ineffective. State Ministry of Education officials are in principle, supposed to visit and inspect the physical plan, the human and other resources available in a proposed nursery school and if these are found to be adequate, the Ministry would approve the school for operation. In most cases, Sooter added, these visits are made a long time after the school had become operational and had been paying the prescribed taxes. The same is true pertaining to teachers in

nursery schools. Some of the people employed to teach the children are neither trained to teach nor do they know how to handle or relate to children.

UBEC (2013), highlighted that management is the process of organizing and controlling human and materials resources, which includes the activities of the caregivers, the children, and the materials at the ECCDE Centre. The different levels of management of ECCDE in Nigeria include the Line Ministries (Education, Health, Agriculture, Environment, Water Resources, Women Affairs, and so forth), UBEC, SUBEBs, LGEAs, SBMCs and the School. The roles of each organ are spelt out below:

- a. **Line Ministries:** policy formulation, regulation and supervision.
- b. **UBEC and SUBEB:** both play collaborative and supportive roles in the training, provision of infrastructure and instructional materials as well as monitoring of activities of the centre.
- c. **LGEAs:** payment of salaries and deployment of teachers; supervision of teaching and learning in the centres; distribution of learning materials; and reporting on the activities of the centres to SUBEB.
- d. **SMBCs:** advocacy, sensitization and mobilization at grass root level. It also collaborates with the school management to improve the quality of care and stimulation. Some even employ additional part-time Caregivers and helpers for the centres and assist the centre with infrastructure, facilities, repairs and resources contribution.
- e. **The School:** the Head Teacher is responsible for the smooth running of the day to day activities at the centre and admission exercises.

On issues pertaining to effective management that are critical and vital to the implementation of the ECCDE programme, Jacob (2012), highlighted them as funding, classrooms/facilities, instructional materials, quality of caregivers/teachers and their stability in schools. Others includes curriculum (availability, training and utilization) as well as monitoring and evaluation. On the other hand, Bello (2003), viewed personnel as the blood of organizational management and that managing personnel at school level depicts authority given to school managers to take charge of certain personnel functions in their schools. He defined personnel as human resources, manpower, workforce, employees and workers that are key ingredients for the successful attainment of organizational goals and objectives.

UBEC (2013), further pointed out that monitoring involves follow-up action, which can be done within by the appropriate personnel, and outside by external bodies. In the same vein, supervision is defined as the act of providing leadership through guiding, encouraging, assisting, advising, refreshing and stimulating children and caregivers in ECCDE environment. Both concepts, it added, involves overseeing the activities of the Centre to improve the quality of care, development, instruction and performance for the achievement of the set goals and objectives.

On this note, let me observe that through team work, schools would be more effective when the afore-mentioned organs including parents and communities were actively involved in running and maintaining a school. Similarly, where teachers were more dedicated and committed to their duties, teaching and learning would be successful thereby leading to the achievement of both general goals and specific objectives.

2.9 Teaching Methods

The term teaching method refers to the general principles, pedagogy and management strategies used for classroom instruction (www teach.com. 2014).The choice of a teaching method depended on what fits one in terms of educational philosophy, classroom demography, subject area(s) and school mission statement. Teaching theories primarily fall into two categories or “approaches” – teacher-centered and student-centered.

i. Teacher-Centered Approach

On this type of approach, the website stated that teachers werethe main authority figure in the model. Students were viewed as “empty vessels” whose primary role was to passively receive information (via lectures and direct instructions) with an end goal of testing and assessment. It is the primary role of teachers to pass information onto their students. In this model, teaching and assessment were viewed as two separate entities. Students learning is measured through objectively scored tests and assessments.

ii. Student-Centered Approach

Teach.com (2014),further posited that while teachers are an authority figure in this model,teachers and students play an equally active role in the learning process. The teacher’s primary role is to coach and facilitate student learning and overall comprehension of material. Student learning is measured through both formal and informal forms of assessment, including group projects, student portfolios, and class participation. Teaching and assessment are connected; student learning is continuously measured during teacher instruction.

Accordingly, this research was conducted from the perspective that teaching should be based on student-centered approach. Moreover, the curriculum, contents, methods, infrastructure, instructional materials and human resources are all designed to cater for students' interest and benefits.

2.9.1 Appropriate Teaching Methods at ECCDE Centre

Teaching method should be appropriate to children as well as the topic, Yusuf (2012), opined that instructional methods are usually named after the dominant activity employed in the course of the lesson. Some of these methods include lecture, discussion, demonstration, laboratory/experimental, field trip, assignment, play way, peer teaching, role playing project, discovery and discussion. To UBEC (2013), the required teaching methods that match the age, interest and abilities of pupils in early childhood education were discovery, field trips, dramatization, story-telling and play way.

i. Discovery Learning:

To Joolingen (1999), discovery learning is a type of learning where learner construct their own knowledge by experimenting with a domain, and inferring rules from the results of these experiments. The basic idea of this kind of learning is that because learners can design their own experiments in the domain and infer the rules of the domain themselves, they are actually constructing their knowledge. Because of these constructive activities, it is assumed they will understand the domain at a higher level than when the necessary information is just presented by a teacher or an expository learning environment.

Borthick and Jones (2000), stated that in discovery learning, participants learn to recognize a problem, characterize what a solution would look like, search for relevant information, develop a solution strategy, and execute the chosen strategy. In collaborative discovery learning, participants immersed in a community of practice and solve problems together. According to EduTech.com (2015), the discovery learning literature often claims the following advantages:

1. Supports active engagement of the learner in the learning process
2. Fosters curiosity
3. Enables the development of lifelong learning skills
4. Personalizes the learning experience
5. Highly motivating as it allows individuals the opportunity to experiment and discover something for themselves
6. Builds on learner's prior knowledge and understanding
7. Develops a sense of independence and autonomy
8. Make them responsible for their own mistakes and results
9. Learning as most adults learn on the job and in real life situations
10. A reason to record their procedure and discoveries - such as not repeating mistakes, a way to analyse what happened, and a way to record a victorious discovery
11. Develops problem solving and creative skills
12. Finds new and interesting avenues of information and learning - such as gravy made with too much corn starch can become a moulding medium

On the other hand, EduTech stated that most researchers would argue that pure discovery learning as a general and global teaching strategy for beginning and

intermediary learners does not work. However, the debate on how much guiding is needed is somewhat open.

ii. Field Trips:

Field trips according to Trinity College Dublin (2011), are educational trips to sites where students have the opportunity to observe their chosen subject outside of a classroom setting, collect samples and to conduct research. Such trips can provide educational opportunities to students within many disciplines including geography, geology, botany, archaeology and others who study the natural or human world.

Yusuf (2012), defined field trip as an excursion taken outside the classroom for the purpose of making relevant observations and for obtaining some specific information. She added that well planned field trips afford the students the opportunity to become actively engaged in observing, collecting, classifying, studying relationships and manipulating objects. A field trip can be undertaken to places like a chemical industry, tourist centre, botanical garden, centres of social services like post office, water board, etc. However, the followings have to be considered by the teacher before undertaking a field trip to determine whether it will be:

1. Of genuine interest to students;
2. Suitable for their ages and class levels;
3. Clearly relevant to curriculum goals and objectives; and
4. Fit naturally into the sequence of the students' work.

Yusuf, similarly identified the advantages and disadvantages of a field trip thus:

Advantages:

1. It enables the students have first-hand experience of real things thereby providing learning experiences, which cannot be brought into the classroom practically.
2. It tends to relate things studied in the classroom with actual activities outside the classroom (that is, the society or community) thereby making class work or subject matter instruction more meaningful and enhancing students understanding of the subject matter.
3. It affords students valuable opportunities to develop interest in some careers.
4. It helps to arouse students' interest and increase their motivation to learn a subject and related subjects.
5. It exposes the students to how aspect of subjects matter studied in class apply to everyday life.
6. It makes the students much more imaginative and inquisitive observers as they acquire skills of careful observation and accurate/objective reporting of what they observe.
7. It enables opportunities for the students to interact with experts which enhances learning.
8. Most field trip experiences make demand of all senses. This makes the student to gain complete picture of the concept than from any other mode of teaching science.

9. Teacher-students relationship become more cordial and develop more intimately during field trip. This is because close relationship are invited during field trips than are usually required by formal classroom and laboratory interactions.

Disadvantages:

1. It is time consuming
2. It is difficult to plan and execute
3. There is danger of accident while going or returning from a field trip and even at fieldtrip location
4. It is not effective and feasible if a school has large number of students
5. It is expensive to execute as it creates extra financial burden both for the school and the students as it involves transportation and feeding cost.

iii. Dramatization:

The dramatization teaching method is referred to as a collection of teaching tools that include traditional drama techniques, such as improvisation, storytelling, role playing and games (www.ask.com, 2015). In dramatization, a lot of emphasis is placed on engaging students through interactive activities. Dramatic teaching is also integrated into many different types of curriculum. Wikipedia (2011), said that there are many ways to use dramatization teaching methods in the classroom as it has the following advantages and disadvantages.

Advantages:

1. Teachers can use it to help students gain deeper insights into lessons.
2. Build on concepts and themes or as a means to test student knowledge.

Disadvantages:

1. These creative techniques often bring a bit of chaos into the learning process.
2. Teachers guide their students through this creative chaos while staying within the framework of the curriculum.

Wikipedia (2011), further asserted that teachers may choose to use dramatic teaching methods, such as teacher in role, storytelling or still images. In the teacher in role method, the teacher assumes a character role to guide discussion on a topic. The teacher may use costuming or props to give the role more depth, and the teacher answers questions from students while in character. With the storytelling method, the teacher brings the subject matter to life through the use of stories. The stories incorporate key information from the course and turn it into a compelling story that is told in the teacher's own words. In the still images method, the teacher instructs students to form a circle, and each student takes a turn at recreating a still image with their bodies that represents a specific topic or idea.

The benefits of using drama in ESL/EFL classes according to Boudreault (2015), are that drama has the potential to empower the students; give them many opportunities to have pride in their work; and it teaches them responsibility, problem solving, management and directing proficiencies. The many activities of team work force students to develop organizational skills and to think on their feet.

iv. PlayWay:

According to MOE Trinidad and Tobago (2006), this method provides a powerful context in which children learn as they actively engage socially, emotionally, physically and intellectually with people and objects. In play, children get opportunities to explore, discover experiment, manipulate materials, solve problems, think critically, make decisions and take risks, practice skills, display dispositions, and test hypotheses without fear or failure, which provide the foundation for representational thought and language, cognition and socialization. Play also offers meaningful contexts for examining issues such as fairness, justice, peace, privacy and responsibility enabling children to consider alternatives and take action to address inequities as young citizens in society.

From the above explanations, it is obvious that during play children gain new knowledge, skills and attitudes, and develop to be strong, healthy and social due to their interaction with other children. Similarly, children become happy and relax during and after play and strengthen their dispositions in all aspects of the curriculum based on the interactions with other people and the feedback that they receive. Furthermore, Yusuf (2012), identified the following advantages and disadvantages of play way method:

Advantages

1. The method allows the pupils the freedom to choose any activity to carry out.
2. Pupils have freedom to experiment with what they are learning about.
3. Pupils gain training in being independent.
4. Very suitable for Nursery and lower levels of the primary class.

Disadvantage

1. It is quite time consuming.

2.10 Benefits of ECCDE

ECCDE plays a significant role in shaping the academy performance of pupils at 0-8 years. UNICEF(2010)defined early childhood as a time of remarkable brain development that lays the foundation for later learning. ECCDE is therefore a right recognized in the Convention on the Rights of the Child of 1989, which should be made as benefit for early child. Early childhood education and care supports children's survival, growth development and learning health. It is therefore, essential for improving the well- being of Nigerian children. In addition, it improves the performance of the child in the first years of formal education and contributes to other EFA and MDGs goals.

Early Childhood Development (ECD) and pre-primary education are widely recognized as having a significant impact on the performance of children in basic education programmes. Biswas (2013), highlighted that pre-primary education has become a popular strategy to protection of drop-out from formal education of children all over the world. Similarly, pre-primary education ensures a smooth transition to the primary education and lays the foundation for lifelong learning. Biswas added that development of a child begins within the family and mostly depends on the parents. Educated parents are able to prepare their children for the smooth entry into formal education but no doubt, uneducated parents are unable to do this. Therefore, protection to drop-out from formal education of a child is very necessary for a nation. For this reason, pre-primary education is especially important for a nation.

From another perspective, Oguntuashe (2010), opined that children whose early life development receives support are more productive in life. On the other hand, UNICEF (1998), stated that these children repeat classes less often in primary school, they complete primary school more often, they require less remedial programmes and they are less susceptible to truancy and criminal tendencies. Oguntuashe further argued that investing in ECCDE appears to be a rational way to tackle the massive failure rates observed in our children's performance in West African School Certificate Examination (WASCE) indicating the programme's other benefits as follows:

1. Investing in ECCDE facilitates the attainment of social and gender equity by providing a robust base from which children of deprived backgrounds, those with special needs, girls and others who encounter discrimination can draw on in later life.
2. Early life intervention enables the child to bond not only with his/her parents but provides an important point of entry into the child's community. This prepares the ground for social mobilization, civic engagement, participation, patriotism and the like.
3. Children with varied perceptual and motor experiences at an early age affects positively the structure and organization of neural pathways in the brain during the formative period, favourably affecting learning of all kinds later in life. It also demonstrates that children whose mothers interact with them in consistent, loving ways, will be better nourished and less apt to be sick than children not so attended.

4. Improvement in early childhood care and development means an improvement in other programmes that are integrated with it such as Maternal and Child Health Care (with attendant reduction in maternal and infant mortality/morbidity).

On this issue Swartout (2015), argued that early childhood education can produce significant gains in children's learning and development. High quality early childhood education assists many at-risk children in avoiding poor outcomes, such as dropping out of school. Although the benefits seem to cross all economic and social lines, the most significant gains are almost always noted among children from families with the lowest income levels and the least amount of formal education. Moreover, studies also indicate that ECCDE produces persistent gains on achievement test scores, along with fewer occurrences of being held back a grade and being placed in education programmes. Other long-term benefits include decreased crime and delinquency rates and increased high school graduation. Swartout concluded by saying that one extensive study found that people who participated in ECCDE were less likely to be on welfare as adults compared to those who had not received any early childhood education.

2.11 Problems Facing ECCDE Implementation in Nigeria

There is no gain saying the fact that effective implementation of the ECCDE curriculum requires various types of resources, which includes physical facilities such as, infrastructure, instructional and text materials, human resources, and fund. Moreover, it is also known that an appreciable number of the established pre-primary/nursery schools do not meet the conventional standards in terms of building, ventilation, sanitation, equipment, illumination, infrastructure and teaching. To buttress these, Amadi (2013),

stated that the challenges of ECCDE were identified to include poor and inconsistent standards across schools, un-stimulating learning environments, preponderance of unqualified teachers and caregivers, high cost of education as well as exploitative and profiteering tendencies on the part of proprietors of ECCDE schools/centres.

Amadi further identified other challenges of early childhood care education in Nigeria to include ill equipped teachers and caregivers; the government's failure, in spite of its efforts to set up policy framework for ECCDE to demonstrate enough commitment in terms of funding, monitoring and evaluation as well as establishment and management of ECCDE schools. Others are inadequacy of space, equipment and facilities that include classrooms, libraries, staff, laboratories and furniture in a greater number of the ECCDE schools. In addition, poor teaching methods and lack of materials such as toys, diagrams, charts, pictorials and so forth that are part of instructional requirements are also some of the challenges in most of the ECCDE schools.

The NERDC (2008), observed that buildings in which an appreciable number of nursery schools are situated are far from ideal as some of them are not primarily meant for such institutions. Some of the schools are situated in dwelling houses or large halls and some face-to-face type of rooms are used as classrooms. Moreover, little consideration was given to site selection, accessibility, freedom from health and noise hazards and physical safety. Some classrooms even led directly to the main road or to wide gutters.

To Ejieh (2006), some of the challenges facing ECCDE implementation in Nigeria include the 'teacher factor' that is lack of trained teachers in ECCDE and few

universities are offering training in ECCDE. Similarly, the high pupil-to-teacher ratio whereby the National Policy on ECE stipulates 25:1, which is considered too high because in most countries it is less than 15:1. Others are the issue of minimum standard and lack of standard curriculum; the use of mother tongue as a medium of instruction in ECE, and funding as well as supervision of the programme in Nigeria.

According to Oguntuashe (2010), the problemsfacing ECCDE curriculum implementation include the provision of infrastructures, equipment, facilities and play materials for such institutions to train the large numbers of teachers needed for the pre-primary sub-sector. On the other hand, Zafeirakon (2015), stated that the main challenge of implementing ECCDE programmes in developing countries is reaching the poorest population through effective and targeted intervention. Other significant obstacles to the expansion of ECCDE services include:

1. Lack of funding
2. Limited country capacity (including central and local administration)
3. In some cases, low social demand for quality ECCDE services.

Zafeirakou finally added that the quality of the ECCDE services is often less than adequate. It is well known that the number of teachers in the pre-primary schools, apart from being inadequate, are not also qualified and majority of them have not received the special ECCDE teaching training programmes. Moreover, most of the Head Teachers see ECCDE programme as the simplest to implement or of lesser importance. Hence, they assign teachers to such classes without considering their qualifications, areas of

specialization, their level of dedication and most significantly, their attitude towards handling children.

2.12 Empirical Studies

Murundu, Okwara, Murundu and Bantu (2012), conducted a research on Child Based Factors Influencing Implementation of Early Childhood Development and Education Curriculum in Kenya. The research employed simple random technique and descriptive survey design while the data was collected through questionnaire. The study found that learners with special needs were not given a special attention. Instead, they were just taught together with the normal children in the same classroom. This is because teachers lacked training in special needs education for handling children with various special needs.

Roehrig, Kruse and Kerm (2007), worked on “Teachers and School Characteristics, and their Influence on Curriculum Implementation”. The data was collected based on interview and observation instruments. Analysis of the data revealed that implementation of the curriculum was strongly influenced by the teachers’ beliefs about teaching and learning, and the presence of a supportive network at their school sites. On the strategies that foster curriculum implementation, Penuel (2007), analysed results from a survey of teachers. The study points to the significance of teachers’ perceptions about how coherent their professional development experience were for teacher learning and programme implementation and provision of technical support were significant for promoting programme implementation.

Yanik (2007), also conducted a research on English Language Curriculum Implementation in Public Primary Schools through Teachers and Students Perceptions in Turkey. Questionnaire was used as the instrument for collecting data, while teachers and students were randomly selected. The result revealed that the implementation process of the English language curriculum showed differences in relation to the facilities of schools and classrooms, teachers and student characteristics and perception. Majority of the curriculum goals were attained at a moderate level and there were some problems with the selection and ordering of curriculum content. Various types of teacher-centred and learner-centred instructional strategies were implemented depending on the language skill to be taught and learned, and the students had positive attitudes towards most of these instructional strategies. The major problems encountered in the implementation process resulted from the lack of materials and resources, the course-book, the learners, the classrooms environment and the curriculum. These problems influenced the attainment of goals, classroom practices and the assessment procedures. Teachers' perceptions of curriculum goals content differs in relation to school location, age, teaching experience and education background. Perceptions of curriculum differed in relation to their grade levels, gender, parents' educational and English level and previous English grade.

Arnott (1994), assessed Factors Affecting the Implementation of an Elementary Science Curriculum in three Northern Saskatchewan provincial schools. His findings indicated that managing changes such as the implementation of an elementary science curriculum is a complex venture necessitating organizational and operational changes at school, school division and provincial levels to encourage support efforts to make school learning organizations for both students and teachers.

Onu, Obizon, Agbo and Chiamaka, (2010), conducted a research on Integration and Innovation in Early Childhood Education (ECE) in Nigeria. The study was a descriptive survey with one hundred and twelve (112) sample pre-school teachers. Eight research questions and three hypotheses guided the study. The data collected was analysed using percentage, mean and paired sample test. Its outcome revealed a significant difference in the opinion of public and private pre-school teachers toward integration and innovation practices in early childhood education in Nigeria is influenced by traditional, uncreative approaches. It equally revealed that the programme was influenced by traditional uncreative approaches. Thus, training and retraining focussing on teachers and stakeholders in ECE was highly recommended.

Chukwura (2011), examined Teachers Role in Improving Early Childhood Education in Nigeria and the findings indicated that early childhood education is a sine qua non for educational development in the 21st century. Moreover, there is a correlation between early childhood education, teacher qualifications and quality practices in teaching and learning. The quality of teachers no doubt influences and determines the quality of the learner. There is therefore the need to train qualified teachers in early childhood education to improve the service delivery in the sector.

As cited by Oguntuashe (2010), from Sociology of Education, was the language deprivation hypothesis of Bernstein (1961). His extensive research led him to suggest that the observed mass failure of the working (lower socio-economic) class school child in the English primary school system, was a function of the poor quality of English language to which he/she has been exposed as a child in the home. Bernstein

characterized this variety of language as a “restricted code” as opposed to the “elaborated code” of the English middle classes. Consequent upon this, it has become paramount to teach English language at early childhood education level so that pupils can interact and communicate through that medium. This will provide them to excel at background in English and enable them at higher levels of education.

Hayes (2007), in his paper titled *Perspectives on the Relationship between Education and Care in Early Childhood* presents evidence that the dynamic process approach to early childhood care development and education offers more for children’s positive development and learning than either the academic (education) or play-based (care) approach alone. Research consistently shows that successful early education facilitates the child in active learning in learning environments or ‘dispositional milieu’ that are well planned, where staff are well trained, confident and supported in their work. Interpretation has become central to both children and adults as they participate in the process of early education: children interpreting and making sense of the world; and adults observing, reflecting on and interpreting children’s behaviour to assess, to plan the curriculum and to guide their practice.

Oguntuashe (2010), in his paper titled *Early Childhood Care and Education for the Holistic Development of the Child in Nigeria*, stated that the World Health Organisation in 1953 indicated that from the early fifties there appeared to be a consensus among researchers in the broad field of development and that child development is lawful, orderly, sequential and age-related. What was required was to delineate and specify the laws and the conditions that governed the development process. This,

Oguntuashe asserted, was then followed by a plethora of research findings suggesting the existence of innate releasing mechanisms and critical stages in the ontological development of non-human organisms like geese arguing that even Freud's psychoanalysis hinted at the possibility of non-reversals in the effects of early life experiences on later development of personality.

Suleiman (2012), assessed the Implementation of Universal Basic Education Programme (UBEP) in Nigeria using descriptive survey method for investigations, identification and data collection. The research population was sampled through random sampling technique while questionnaire was used in collecting data and ANOVA was employed to test the hypotheses of the study. The research findings revealed that:

1. Infrastructural and instructional facilities were inadequate for the implementation of UBEP in Nigeria.
2. UBEP was also found to be grossly underfunded and lacked requisite teachers, which hampered effective implementation.
3. Supervision, monitoring and evaluation had positive impact on the implementation of UBEP.
4. The programme lacked qualified and motivated staff.
5. Free and compulsory education was partially implemented.

The similarities amongst theafore-mentioned researches including this one wasthat all of them employed descriptive survey, random sample technique and used questionnaire as instruments.The researchesalso revealed that infrastructural and instructional facilities were inadequate for the implementation of ECCDE

programmewhile teachers lack adequate training. However, the difference was that this study revealed that there werequalified staff teaching theprogramme, and despite the absence of cordial relationship between the monitoring/supervision personnel and the teachers, yet monitoring/supervision enhances successful ECCDE curriculum implementation in Kano and Katsina States. Although this study was conducted to evaluate ECCDE curriculum implementation in particular, itwould also be relevant for other levels of education.

This research therefore, sought to add knowledge on Hayes (2007), findings, which showed that successful early education facilitates quick development of the child in active learning environments or dispositional milieu. Moreover, the study evaluated the physical environment, human and material resources to determine if they have impact on pupils at the early education stage. Specifically, the pupils' tendency to act or think in the same way based on the availability of the resources provided in their various schools in Kano and Katsina States was evaluated.

Moreover, focus of thisstudy differed significantly from the previous ones as attempt has been made to harness some of the variables. This research therefore intend to fillsome gaps from the previous researches carried out such as, whether there is significant difference among children who attended theearly childhood care developmentand education and those who did not at primary level. In addition, most of the previous studies used a single instrument whereas three were employed in this one.

2.13 Summary

This chapter reviewed theories, concepts, relevant literature and empirical studies related to the implementation of the early childhood care development and education curriculum from both theoretical and conceptual framework. The theories of Piaget's and Vygotsky's on play and cognitive development respectively and that of Maria Montessori on foundation principles and concepts as well as other researches carried out were reviewed. Under review of related literature, curriculum content of ECCDE as prepared by NERDC; teacher training and qualification; environment of an effective centre; resources for effective curriculum implementation; management, coordinating and supervision; and appropriate methods of teaching at the ECCDE level, amongst others, were discussed.

However, this study is very unique in the sense that most of the previous studies focused on these areas: Child Based Factors Influencing Implementation of Early Childhood Development and Education Curriculum; Role of Teachers and School Characteristics on Curriculum Implementation; Teachers and School Characteristics: their Influence on Curriculum Implementation; and Factors Affecting the Implementation of an Elementary Science Curriculum. Others were Integration and Innovation in Early Childhood Education in Nigeria: Implementation for Quality Teacher Production; and Teachers Role in Improving Early Childhood Education in Nigeria.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the methodology used in the conduct of the research work. It contains the Research Design, Population, Sample and Sampling Technique. Others are Instrumentation, Validity of the Instrument, Pilot Study, Reliability of the Instrument, Procedure for Data Collection and Procedure for Data Analysis.

3.2 Research Design

Descriptive survey and ex-post facto design were selected for this study. Kolo (2010), stated that descriptive survey is connected with events that currently exist and is about factual information. The method further helps the investigator to describe the occurrence of variance and relationship between or among variables. Thus, this research was conducted using descriptive survey study, which according to Olayiwola (2007), involves describing, evaluating or comparing current or prevailing practices, events and occurrences. It is primarily designed to paint the picture of a situation.

On the other hand, Lammers and Badia (2005), stated that ex-post facto is a non-experimental research technique in which pre-existing groups are compared on the same dependent variable and it is a type of study that can masquerade as a genuine experiment. In this study, ex-post facto was therefore adopted in order to compare if there is significant difference in the academic performance of a group of pupils in Primary One who passed through the CECCDE programme and another group of the same Primary One pupils that did not undergo the programme. It was also used to establish the validity

of the terminal examination assessment report sheets issued to the Primary One pupils by the Centres visited in the two selected States.

3.3 Population

Population consists of the totality of all the people, element, objects or institutions that possess the characteristics ofb interest to a researcher on which he/she wishes to generalize his/her findings, but do not have access of them (Emmanuel, 20123). This study was carried out in the North-West Geo-political zone of Nigeria which comprises of Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara States. The targeted accessible population in the zone consists of 4,555 centres; 323,343 Pupils; 4,478 Head Teachers; 3,201 qualified ECCDE Teachers; 3,966 LGEAs Supervisors and 241 SUBEBs Supervisors in addition to 5 UBEC ECCDE Coordinators, Abuja. For the distribution of the population, refer to Appendix I.

Kano State has forty-four (44) LGEAs grouped into ten (10) education zones with one thousand four hundred and twenty-eight (1428) ECCDE centres. On the other hand, Katsina has thirty-four (34) LGEAs grouped into seven (7) education zones with four hundred and thirty-seven (437) ECCDE centers. The population of the respondents in Kano State is 197,632 Pupils; 1,428 Head Teachers; 717 qualified ECCDE Teachers; 815 LGEAs Supervisors; and 17 SUBEB Supervisors in addition to 5 ECCDE Coordinators from UBEC. In Katsina State, the population comprises of 47,755 Pupils; 437 Head Teachers; 267 qualified ECCDE Teachers; 136 LGEAs Supervisors; and 18 SUBEB Supervisors (refer to Appendix IIa and IIb).

The population of the sampled zones from the two selected States of Kano and Katsina is however, six (6) education zones, six (6) LGEAs and seven hundred and twenty-four (724) ECCDE centers. Kano State has three (3) zones and three (3) LGEAs with five hundred and two (502) ECCDE centers while Katsina State has three (3) zones and three (3) LGEAs with two hundred and twenty-two (222) ECCDE centres. This is reflected in table 3.1a while the details are in Appendix IIIa and IIIb.

Table 3.1a Distribution of Targeted Zones, LGEAs and ECCDE Centres in Kano and Katsina States

State	Senatorial Zone	Education Zone	LGEAs	ECCDE Centres
Kano	3	10	44	1428
Katsina	3	7	34	437
Grand Total	6	17	78	1865

Source: UBEC Abuja (2010) Data Base

The target population of pupils in Kano and Katsina State is one hundred and sixty thousand five hundred and fifty-seven (160,557) from which Kano has one hundred and fifteen thousand three hundred and sixty-seven (115,367) while Katsina has forty-five thousand one hundred and ninety (45,190) as depicted in table 3.1b.

Table 3.1b Distribution of Targeted Pupils (Enrolment) in Kano and Katsina States

State	Zone	LGEA	Pupils (Enrolment)
Kano	10	44	115,367
Katsina	11	34	45,190
Grand Total	21	78	160,557

Source: UBEC Abuja (2010) Data Base

The target population of Head Teachers is one thousand four hundred and twenty-eight (1,428) and four hundred and thirty-seven (437) in Kano and Katsina States respectively. Similarly, the population of qualified ECCDE Teachers in Kano State is seven hundred and seventeen (717) while in Katsina it is two hundred and sixty-seven (267). The target population of LGEAs Supervisors is two hundred and twenty-eight (228) in Kano and seventy-four (74) in Katsina State while SUBEB Supervisors is seventeen (17) and eighteen (18) in Kano and Katsina respectively. This is in addition to five (5) UBEC ECCDE Coordinators covering the two States. For the target population of the pupils, Head Teachers, ECCDE qualified Teachers, LGEAs Supervisors, SUBEBs Supervisors from both Kano and Katsina States including UBEC Coordinators see table 3.1c while for the details refer to Appendix IIa and IIb.

Table 3.1c: Distribution of Target Population of Head Teachers, ECCDE Teachers, LGEAs Supervisors, SUBEBs Supervisors and UBEC Coordinators.

State	Head Teachers	ECCDE Teachers	LGEAs Supervisors	SUBEBs Supervisors	UBEC Coordinators
Kano	1428	717	815	17	5
Katsina	437	267	136	18	
Total	1865	984	951	35	5

Sources: Kano SUBEB (2012-2013); Katsina SUBEB (2013-2014); and UBEC (2011)

3.4 Sample and Sampling Technique

The sample population of ECCDE centres in Kano State is ninety-four (94) and eighty-four (84) centres are sampled from which Tofa LGEA of Dambatta Zone has fourteen (14) with a sample size of fourteen (14); Tarauni LGEA under Municipal Zone has fifty-five (55) with its sample size as forty-eight (48); and Bebeji LGEA of T/Wada Zone has twenty-five (25) where the sample size is twenty-four (24). This is reflected in table 3.2a and the sample size is arrived at using Krejcie and Morgan (1970) required sample size. For the number of ECCDE centres, refer Appendix IIIa while Appendix IV contains the sample size.

Table 3.2a: Distribution of Sample and Sampled Size of ECCDE Centres in Kano State

State	Zone	LGEA	Sample Centres	Sampled Size
Kano	Dambatta	Tofa	14	14
	Municipal	Tarauni	55	48
	T/Wada	Bebeji	25	24
Total	3	3	94	86

Source: Kano State Annual Report Census, 2012/2013

In Katsina State, as shown in table 3.2b, the sample population of the ECCDE centres is sixty-four (64) and the sample size is sixty (60) from which Katsina LGEA of Katsina Zone has thirty-one (31) with a sample size of twenty-eight (28); Kurfi LGEA under Dutsin-ma Zone has thirteen (13) with its sample size as thirteen (13); and Daura LGEA of Daura Zone has twenty (20) where the sample size is nineteen (19). The sample centres visited in the two States is therefore one hundred and forty-six (146) as depicted in tables 3a and 3b while the sample size is derived from Krejcie and Morgan required sample size. For the number of centres, refer to Appendix IIIb while Appendix IV contains the sample size.

Table 3.2b: Distribution of Population and Sample Size of ECCDE Centres in Katsina State

State	Zone	LGEAs	Population of Centres	Sample Size
Katsina	Katsina	Katsina	31	28
	Dutsin-Ma	Kurfi	13	13
	Daura	Daura	20	19
Total	3	3	64	60

Source: Katsina State Annual Report Census 2013/2014

The sample pupils' representative in this research from the two States of Kano and Katsina consists of those who attended the ECCDE programme and those who did not. The total number of pupils from the six sample LGEAs in the six sample education zones is twenty-three thousand nine hundred and thirty-nine (23,939). Out of this and as shown in table 3.3a, Kano has fourteen thousand six hundred and seventy-one (14,671). Tofa LGEA has five thousand five hundred and six (5,506) with sample size of three hundred fifty-seven (357); Tarauni has five thousand nine hundred eighty-seven (5,987) with three hundred and fifty-seven (357) as sample size; while Bebeji LGEA has three thousand one hundred seventy-eight (3,178) as population with a sample size of three hundred forty-one (341).

Table 3.3a: Distribution of Sample and Sample Size of Pupils in Kano State

State	Zone	LGEA	Pupils' Enrolment	Sample Size
Kano	Dambatta	Tofa	5506	357
	Municipal	Tarauni	5987	357
	T/Wada	Bebeji	3178	341
Total	3	3	14671	1055

Source: Kano State Annual Report Census 2012/2013

As portrayed in table 3.3b however, the population of pupils from the sample LGEAs of the sample education zones in Katsina State, is nine thousand two hundred and sixty-eight (9,268) from which Katsina LGEA has four thousand five hundred and fourteen (4,514) with a sample size of three hundred and fifty-four (354); Kurfi LGEA has one thousand two hundred and eighty-eight (1,288) with a sample size of two hundred and ninety-one (291); while Daura has three thousand four hundred and sixty-six (3,466) with a sample size of three hundred forty-one (341).

Table 3.3b Distribution of Sample and Sample Size of Pupils in Katsina State

State	Zone	LGEAs	Pupils' Enrolment	Sample Pupils
Katsina	Katsina	Katsina	4514	354
	Dutsin-Ma	Kurfi	1288	291
	Daura	Daura	3466	341
Total	3	3	9268	986
Grand Total	6	6	23939	2041

Source: Katsina State Annual Report Census 2013/2014

Considering the large number of the population, only 40 pupils were sampled and assessed based on the terminal examinations report sheets obtained from their respective centres. In the same vein, only 120 pupils were sampled for the post-test designed by the researcher.

The sample population of respondents in Kano State as recorded in table 3.4a consists of 86 Head Teachers, 88 qualified ECCDE Teachers, 47 LGEA Supervisors, 17 SUBEB Supervisors and 5 UBEC Coordinators.

Table 3.4a Distribution of Population and Sample Size of Respondents in Kano State and UBEC Coordinators Abuja

State	Zone	LGEAs	Head Teachers		ECCDE Teachers		LGEAs Supervisors		SUBEB Supervisors		Coord. UBEC	
			P	S	P	S	P	S	P	S	P	S
Kano	Dambatta	Tofa	14	14	29	24	15	14	17	17	5	5
	Municipal	Tarauni	55	48	46	40	14	14				
	T/Wada	Bebeji	25	24	25	24	21	19				
Total	3	3	94	86	100	88	50	47	17	17	5	5

Source: Kano SUBEB Annual Report Census 2012/2013

As depicted in table 3.4b, the sample population from Katsina State recorded a total of 60 Head Teachers, 54 qualified ECCDE Teachers, 21 LGEA Supervisors and 18 SUBEB Supervisors.

Table 3.4b: Distribution of Population and Sample Size of Respondents in Katsina State

State	Zone	LGEAs	Head Teachers		ECCDE Teachers		LGEAs Supervisors		SUBEB Supervisors	
			P	S	P	S	P	S	P	S
Katsina	Katsina	Katsina	32	28	30	28	7	7	18	18
	Dutsin-ma	Kurfi	13	13	15	14	6	6		
	Daura	Daura	20	19	12	12	8	8		
Total	3	3	65	60	57	54	21	21	18	18

Source: Katsina SUBEB Annual Report Census 2013/2014

The total sample size of the respondents in the sample LGEAs of the two States selected therefore, is three hundred and ninety-six (396). The sample sizes of the respondents were obtained through expert sampling using Krejcie and Morgan (1970) method of determining sample size, who indicated that a sample of 201 is considered adequate for a population of 422. However, for the purpose of this study, a sample of 396 was used.

However, due to the large number of the ECCDE centres convenience sampling was used which Mizner (2008), defined as a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. In conducting research, convenience sample can be used because it allows the researcher to obtain basic data and trends regarding the study without the complications of using a randomized sample. Hence, this method was chosen for convenience and to

save time, while purposive was adopted for sampling of the pupils. In essence, the sample targeted education zones was six (6), three (3) from each State respectively.

Similarly, the sampling of the respondents was based on expert sampling which according to Emmanuel (2013), involves the assembling of persons with known or demonstrable experience and expertise on the subject matter being investigated. Also, the sample number of centres for the physical observation in both States was based on convenience whereby thirty (30) centres were selected and visited with five (5) from each of the sample LGEA of the sample education zone of the two States.

In assessing the academic performance of pupils based on their terminal examination report sheets, forty (40) pupils were used while for the post-test, one hundred and twenty (120) pupils were examined. Thus, one hundred and sixty (160) pupils were assessed covering both primary one pupils who passed through the ECCDE programme and those who did not.

Simple Random Sampling was used for the sampling of the zones and LGEAs in the two States, which Agbe (2003), opined help reduce the cost of data collection and for the purpose of convenience. This technique, Emmanuel (2013), stated, is the selection of a unit or element for inclusion in a sample by chance alone, and no one is deliberately omitted. This method of selection ensures equal chance of being selected and enforces the law of probability.

3.5 Instrumentation

The instruments used in collecting the data for this research included questionnaire, observation and post-test.

Questionnaire:

Yusuf (2012), defined questionnaire and observation as follows:

Questionnaire usually consists of a set of questions that are presented in written form to a respondent who is expected to respond in writing. The questionnaire, if carefully constructed, can be used to get information on a respondent's feelings, attitudes, interests, and so on. The format of the questionnaire could be open-ended, close-ended or a combination of the two. The format adopted for this research questionnaire was close-ended (multiple choice).

A questionnaire with the title: "Evaluation of the Implementation of Early Childhood Care Development and Education Curriculum in North West Geo-political Zone of Nigeria (EIECCDEC)" was developed. The designed questionnaire was of three types; the first one, which contained twenty (20) questions, focused on the ECCDE curriculum and teaching methods and was for the five groups of respondents namely, Head Teachers, ECCDE Teachers, LGEAs Supervisors, SUBEBs Supervisors and UBEC ECCDE Coordinators. The second, consisting of twenty (20) questions, was for Head Teachers only and centered on teachers' qualification and quality assurance while the third type containing twenty (20) questions too was for ECCDE Teachers alone and focused on the environment as well as educational resources.

Each of the questionnaire was in two parts- A and B. Part A elicited the respondents' general information while Part B consisted of questions or statements in relation to the objectives of the study. Questions or statements were followed by options out of which the respondents were required to choose one and tick in a box underneath it. The answers provided were graded using the Likert modified 4-points rating scale such

as, 4-Strongly Agree, 3-Agree, 2-Disagree and 1- Strongly Disagree. The choice of the 4-point scale for this study is hinged on Lozato et al (2008), argued that “the optimum number of alternatives is between 4 and 7. With fewer than four alternatives, the reliability and validity decrease, and from seven alternatives onwards, psychometric properties of the scale scarcely increase further.” According to Fink (2003) suggested that a neutral category can be used if it is valid while some researchers suggest that neutral categories (undercut) provide respondents with an excuse for not answering. The scale allows respondents to indicate the standard, adequacy, availability or non-existence of materials as stated in the Likert scale. The results were analyzed using frequency, mean and standard deviation to find out differences of the respondents on each variable. In testing the hypotheses, ANOVA was used on hypothesis 1 to find out differences amongst the more than two groups of respondents; chi-square was used on hypotheses 2 to 6; and t-test was applied on hypothesis 7 to establish differences amongst two groups.

Observation:

Yusuf (2012), posited that observation refers to getting information about the student, situation under natural condition. During observation, events that are directly observable are recorded as they occur and the information is analyzed for the purpose of decision-making. In conducting observation, rating scale or checklist is used. An observation checklist was therefore designed to enable the researcher and research assistants to physically observe the standard, adequacy, availability, inadequacy or non-existence of the resources. The results, based on ticking Yes or No and using dichotomous scale of 2 and 1, were analyzed on the basis of frequency, percentage and mean using simple percentage.

Post-test

Kolo (2010), stated that post-test involves the administration of the instrument for data collection which provides confidentiality of the respondents because there is no re-test and its controls for most of the threats to internal validity. Accordingly, the post-test was used to validate the result of the analyses of terminal examination report sheets issued by the centres to pupils who passed through the ECCDE programme and those who did not. The test was conducted based on the NERDC National Early Childhood Curriculum for Ages 0-5 Years (supported by UNICEF), the Nigeria Pre-primary English Pupils' Book 1 and the Modern English for Primary Book 1. For the copy of the test refer to appendix Vid.

3.5.1 Validity of the Instrument

To make sure that the instruments used measured what they were intended to measure on the research objectives, research questions and hypotheses were tabled before the research experts who were appointed as Supervisors and experts from other universities and College of education. They assessed and gave necessary corrections on the designed research instruments in terms of appropriate grammar, suitability of the items proposed, and the respondents that would provide the required information in answering the questionnaires of the study. Their suggestions, comments and corrections were incorporated in the final copies of the printed instruments used.

3.5.2 Pilot Study

To establish the reliability of the instruments, a pilot study was conducted on independent respondents drawn from Dala LGEA of Kano State which is not one of the sampled LGEAs for the study. A total of fifty (50) copies of the questionnaire for the three different groups of respondents was administered; ten (10) copies for Head Teachers, twenty (20) copies for ECCDE Teachers and twenty (20) copies for LGEA Supervisors. Observation, was however, conducted in all the ten (10) schools visited.

3.5.3 Reliability of the Instrument

The data collected from the Pilot study were statistically analysed for the purpose of reliability co-efficient. The Cronbach's alpha reliability coefficient was used. Consequently, reliability co-efficient of alpha level of 0.880 was obtained for the whole fifty (50) respondents. On individual analysis, a reliability of 0.750 was obtained for Head Teachers, 0.767 was obtained for ECCDE Teachers and a reliability coefficient of 0.789 was obtained for Supervisors This reliability co-efficient was considered adequate for the internal consistencies of the instruments. This was a confirmation of test of reliability by Spiegel (2010). According to him, an instrument is considered reliable if its reliability co-efficient lies between 0 and 1, and that the closer the calculated reliability co-efficient is to zero, the less reliable is the instrument, and the closer the calculated reliability co-efficient is to 1, the more reliable is the instrument. This therefore, confirmed that the reliability of the data collection instrument used was fit for the main work.

3.6 Procedure for Data Collection

The researcher employed the following procedures for the collection of data for the study. First, the researcher visited the two States Universal Basic Education Boards (SUBEBs) with an introductory letter obtained from the Department of Educational Foundations and Curriculum together with ABU Student Identity Card for introduction purpose. This was to enable the researcher seek for the permission of the appropriate authorities in the collection of relevant information from the respondents.

Relevant information regarding the population of centres used in this study were obtained at the LGEAs Headquarters from the Office of the Heads of School Services Unit. Similarly, the questionnaires were administered by the researcher and the three research assistants on the Supervisors at SUBEB and LGEA levels as well as the Head Teachers, ECCDE Teachers and the ECCDE Coordinators at UBEC, Abuja. The questionnaires were retrieved by the researcher and three research assistants who were duly briefed of what is expected of them in the course of data collection. In some instances, Supporting Staff Officers (SSOs) in the offices of Heads of School Services Units at the LGEA level and two Senior Supervisors at the SUBEB level assisted in the course of administering the instrument of the study. Copies of those distributed at UBEC, Abuja headquarters, were however retrieved by a research assistant. On the other hand, the observation was conducted in the thirty sampled centres by the researcher together with two research assistants.

Prior to the commencement of data collection however, a one week training programme was organized by the researcher for the research assistants on the contents of the questionnaire and the observation checklists. They were guided on how and where to

distribute the questionnaire, get it filled and how to retrieve it. Similarly, they were trained on the contents of the observation checklists and how to fill the document. On the designed test for Primary One pupils, the research assistants were guided on how to assist the researcher to administer it especially regarding seat arrangement for the pupils and how they should respond to the questions. The training on usage of the instruments by the research assistants was done manually through filling a sample of each of the questionnaire and observation checklists by the researcher together with the three research assistants.

3.7 Procedure for Data Analysis

The data collected on the Evaluation of the Implementation of Early Childhood Care Development and Education Curriculum in North-West Geo-Political Zone of Nigeria were analyzed in tabular form through frequency, mean and percentage. Moreover, the raw scores from the frequencies were converted to mean and standard deviation. Similarly, the scores on Terminal Assessment Report Sheets and the ex-post facto designed test for primary one pupils that attended ECCDE and those who did not was compared using t-test to find out whether the programme prepared children for primary education or not.

The bio-data of the respondents were analyzed based on frequency and percentage while research questions one and seven were analyzed using mean, standard deviation and standard error. However, research questions two, three, four, five and six were analyzed using mean and standard deviation only. In testing null hypothesis 1, ANOVA was employed to test it at 0.05 level of significance. Hypotheses 2, 3, 4, 5 and 6 were

however analyzed based on chi-square at 0.05 level of significance while hypothesis 7 was analyzed using t-test also at 0.05 level of significance. Simple percentage was the method employed in analyzing the findings made on the basis of the observation checklists.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSIONS

4.1 Introduction

This chapter focuses on data analysis including interpretation of its results. The data were obtained from the perceptions of ECCDE Head Teachers, Teachers, as well as Supervisors in LGEAs/SUBEBS in Kano and Katsina States and Coordinators at UBEC, Abuja. Similarly, it included sampled results of some primary school pupils' academic performance based on terminal examination report sheets and the ex-post facto test conducted by the researcher for primary one pupil. The pupils were classified into two groups; those who attended the early childhood care development and education programme and those who did not. The data analysis is done in sections with the first containing the bio-data variables of the respondents while the second one answers the research questions. To assess their level of responses, the mean of each item in each table was computed beside the frequency of agreement. The cumulative mean in each table was computed and compared with the decision mean of 2.50000 based on the 4-Likert scale.

Hypothesis 1 was tested with the analysis of variance (ANOVA) for all the stakeholders' perception, while hypotheses 2-6 were tested using the chi-square statistics. Hypothesis 7 on pupils' academic performance was tested using the independent t-test statistics. All the hypotheses were tested at 0.05 level of significance. The frequencies of observation checklist were analysed using mean and percentage with

dichotomous scale of 2 for Yes and 1 for No. The summary of major findings is also presented at the end of the chapter.

4.2 Description of Study Variables

A total of three hundred ninety-two respondents were involved in answering the questionnaire in this study. This number was made up of one hundred forty-six head teachers, one hundred and forty-two ECCDE qualified teachers, sixty-eight LGEAs supervisors, thirty-five SUBEBs supervisors and five UBEC ECCDE coordinators. The number of pupils assessment involved on the terminal examination report sheets and for test conducted by researcher were one hundred and sixty.

Table 4.1a: Response Rate of Respondents

Respondents	Questionnaires Distributed	Questionnaires Returned	Percentage (%) Returned
Head Teachers	146	146	36.87
ECCDE Teachers	142	138	34.85
LGEA Supervisors	68	68	17.35
SUBEB Supervisors	35	35	8.93
Coordinators UBEC	5	5	1.28
Total	396	392	99.28

Table 4.1a showed that 396 questionnaires were distributed to the five groups of respondents out of which 392 or 99.28% were retrieved leaving a balance of 4 copies as un-retrieved from the ECCDE Teachers. Therefore, all analyses will be based on the 392 retrieved questionnaires that constituted 100%. The Head Teachers group had the highest

number of respondents as it received 146 copies or 36.87% of the questionnaires while the least group was that of UBEC ECCDE Coordinators that received 5 or 1.28% of the questionnaires.

Analysis of Bio-Data Variables

Table 4.1b: Distribution of Respondents Based on Status

Respondents	Frequency	Percentage
Head Teachers	146	36.87
ECCDE Teachers	138	34.85
LGEA Supervisors	68	17.35
SUBEB Supervisors	35	8.93
UBEC Coordinators	5	1.28
Total	392	99.28

On respondents status, Table 4.1b indicated that 146 or 36.22% of respondents were Head Teachers; 138 others representing 34.85% were ECCDE Teachers; 68 representing 17.35% were LGEA Supervisors as against 35 or 8.93% were SUBEB Supervisors while the remaining 5 or 1.28% were UBEC Coordinators. This implied that all the stakeholders of the ECCDE programme were represented in the study.

Table 4.1c: Distribution of Respondents Based on Gender

Respondents	Frequency	Percentage
Male	272	69.4
Female	120	30.6
Total	392	100.0

On gender distribution, Table 4.1c showed that 272 of the respondents representing 69.4% were males while the remaining 120 representing 30.6% were females. This indicates that both sexes were represented in this study.

Table 4.1d: Distribution of Respondents Based on Educational Qualification

Respondents	Frequency	Percentage
PhD	Nil	Nil
Masters	112	28.6
Bachelors	175	44.6
NCE	105	26.8
Total	392	100

On the respondents' educational qualification, Table 4.1d indicated that a total of 112 representing 28.6% obtained Master degrees. Similarly, 175 representing 44.6% had Bachelor degrees and the remaining 105 representing 26.8% possessed NCE certificates. This indicates that all the respondents had at least the minimum qualification for entry into the teaching profession that is, NCE.

Table 4.1e: Distribution of Respondents Based on Years of Experience

Respondents	Frequency	Percentage
0- 5 yrs.	47	12.0
6-10 yrs.	80	20.4
11-15 yrs.	86	21.9
16-20 yrs.	84	21.4
over 20 yrs.	95	24.2
Total	392	100.0

On the respondents' years of working experience, Table 4.1eshowed that a total of 47 representing 12.0% had between 0 - 5 years while 80 representing 20.4% had between 6-10 years as against 86 or 21.9% that had 11-15 years. Similarly, 84 or 21.4% had 16-20 years of experience while the remaining 95 representing 24.2% had over 20 years working experience.

Table 4.2a: Distribution of Sampled Primary 1 Pupils Assessed on Terminal Examination Report Sheets

Pupils	Frequency	Percentage
ECCDE	80	42.8
Non-ECCDE	107	57.2
Total	187	100

Table 4.2a showed that a total of 187 primary school pupils' results were used, which was classified into two groups. The first comprised of 80 pupils representing 42.8% that attended the Early Childhood Care Development and Education programme and the second group of 107 or 57.2% were those who did not attend the programme.

Table 4.2b: Distribution of Sampled Primary 1 Pupils Based on Post-test

Pupils	Frequency	Percentage
ECCDE	20	50
Non-ECCDE	20	50
Total	40	100

Table 4.2b showed that a total of 40 primary one (1) school pupils were tested with 20 each or 50% of the pupils representing those that attended the Early Childhood Care Development and Education programme and those who did not attend the programme respectively.

4.3 Response to Research Questions

The descriptive analysis adopted for this study was done by way of responding to the research questions as follows:

Research Question No. 1: To what extent does the early childhood care development and education curriculum prepares children for primary education in the North-West Geo-political zone of Nigeria?

Responding to this research question, all the items (1-10) were addressed by the five (5) groups of respondents and the result showed as follows:

Table 4.3: Descriptive Summary of Data on ECCDE Curriculum Preparation:

Respondents	N	Mean	Std. Dev.	Std. Error
Head Teachers	146	29.2945	3.45447	.28589
ECCDE Teachers	138	29.4855	3.46038	.29457
LGEAs Supervisors	68	29.6471	3.18469	.38620
SUBEBs Supervisors	35	29.1714	3.55201	.60040
UBEC Coordinators	5	31.6000	.89443	.40000
Total	392	29.4413	3.39800	.17163

Decision mean – 2.5000

The descriptive statistics on the respondents mean perceptions regarding preparation of children for primary education through attending the early childhood care development and education programme in the North-West Geo-political zone of Nigeria as depicted in Table 4.3 were 29.2945, 29.4855, 29.6471, 29.1714 and 31.6000 by Head Teachers, ECCDE Teachers, LGEA Supervisors, SUBEB Supervisors and UBEC

Coordinators respectively. This showed that on the basis of the respondents' status, their mean perception on ECCDE curriculum preparation is not very different as it ranges from 29.1714 to 31.6000.

Research Question No. 2: What is the qualification of ECCDE teachers and the extent of their accessibility to specialization programme in early childhood care development and education in the North-West Geo-political zone of Nigeria?

Responding to this research question, the Head Teachers addressed all the items (1-10) and the result showed as follows:

Table 4.4: Perception of Respondents on Teachers Qualification:

S/N	Items	Response categories				Mean	Std
		SA	A	D	SD		
1	ECCDE teachers possess the qualification for teaching at ECCDE centres	60	49	26	11	3.08	0.94
2	ECCDE teachers receive adequate in-service training by the State SUBEB and or the LGEAs	22	10	85	29	2.17	0.92
3	Government recruits qualified teachers to teach at ECCE centres	66	42	31	7	3.14	0.92
4	Qualified and experienced teachers are competent enough in all aspects of instruction	96	30	12	8	3.48	0.86
5	ECCDE teachers possess adequate methods, skills, techniques and strategies	35	64	36	11	2.84	0.88
6	Experienced teachers possess adequate methods, skills, techniques and strategies	81	33	24	8	3.28	0.95
7	Teacher participation in decision making would enhance teaching and learning	121	11	7	7	3.68	0.78
8	Quality education begins with the teacher who is acclaimed to be the determinant of quality education	66	60	16	4	3.29	0.77
9	Availability of trained and qualified teachers is a major problem in ECCDE centres	91	37	11	7	3.45	0.85
10	ECCDE teachers attend seminars and workshop	24	20	53	49	2.13	1.06
<i>Cumulative mean</i>						3.051	

Decision mean = 2.5000

Table 4.4 revealed the perception of Head Teachers on the ECCDE Teachers qualification and access to the specialization programme in early childhood care development and education in the North-West Geo-political zone of Nigeria. They were in agreement with the spelt out items because the cumulative mean response on all the ten items was 3.051, which was found to be higher than the decision mean of 2.5000.

Specifically, 60 Head Teachers strongly agreed that ECCDE Teachers in the centres possess the qualification to teach the programme while 49 were in agreement with 26 and 11 disagree and strongly disagree respectively. Moreover, it was observed that teacher's participation in decision making would enhance teaching and learning, as this item attracted the highest mean response of 3.68 with the details showing 121 respondents were in strong agreement, 11 were on agreement while 7 each disagreed and strongly disagreed respectively. In the same vein, they were of the belief that qualified and experienced teachers were competent enough in all aspects of instruction as the item attracted the second highest mean response of 3.48 with 96 respondents being in strong agreement, 30 in agreement as against 12 that disagreed and 8 that strongly disagreed.

In summary, the respondents were in agreement that teachers possess the qualification to teach in the ECCDE centres and were having access to the specialization programme in early childhood care development and education in the North-West Geo-political zone of Nigeria. Similarly, respondents believed that teacher participation in decision making would enhance teaching and learning while qualified and experienced teachers were competent enough in all aspects of instruction. However, the respondents were of the view that ECCDE teachers received inadequate in-service training because

the mean is 2.17 less than the decision mean. Similarly, the mean of teachers' attendance of seminars and workshops is also 2.13, which is less than the decision mean. As such their accessibility to specialization programme in early childhood care development and education in the North-West Geo-political zone of Nigeria is inadequate.

Research Question No. 3: What is the extent of the ECCDE environment in the North-West Geo-political zone of Nigeria meeting the prescribed standards for teaching/caring and learning?

Responding to this research question, the ECCDE Teachers addressed all the items (1-10) and the result showed as follows:

Table 4.5: Perception of Respondents on Environment of ECCDE Centres:

S/N		Response categories					
		SA	A	D	SD	MEAN	STD
1	ECCDE locations are acceptable to the community and they are within walking distance	103	22	5	8	3.59	0.81
2	ECCDE environments are safe, secure, fenced and free from excessive noise.	79	0	59		3.14	0.99
3	Play-ground with enough space and classroom are well ventilated	5	20	66	47	1.87	0.78
4	ECCDE centres have enough toilets and access to portable (drinking) water	87	1	22	8	3.35	0.77
5	ECCDE classrooms have furniture: child-sized chair and table	59	38	33	8	3.07	0.85
6	ECCDE environment is provided with basic sanitation, safe nutritious food, portable water, adequate ventilation and promote good health practices.	67	35	28	8	3.16	0.78
7	ECCDE environment stimulates the child to play, explore and discover	53	29	44	12	2.89	0.77
8	The environment is attractive to the child with variety of colours, textures, surfaces, visual dimensions and perspectives	34	20	45	39	2.35	0.85
9	ECCDE classrooms provide children with space for storing their personal belongings	95	25	10	8	3.50	1.06
10	Encourages children's regular attendance to the centre	27	12	82	17	2.36	0.86
	Cumulative mean					2.93	

Decision mean = 2.5000

Table 4.5 revealed the perception of Teachers on the ECCDE centres meeting the prescribed standards for teaching/caring and learning in the North-West Geo-political zone of Nigeria. They were in agreement with the items based on cumulative mean response of 2.93 on seven items, which was found to be higher than the decision mean of 2.5000 while three items were less than both the cumulative mean and decision mean.

Specifically, it was observed that ECCDE locations were acceptable to the communities and they were within walking distance as the item attracted the highest mean response of 3.59. The details showed that 103 of the respondents were in strong agreement, 22 in agreement, 5 disagreed and 8 strongly disagreed. In the same vein, they were of the belief that ECCDE classrooms provided children with space for storing their personal belongings as the item attracted the second highest mean response of 3.50 with details showing 95 were in strong agreement, 25 in agreement, 10 disagreed and the remaining 8 strongly disagreed. On play-ground and classroom being well ventilated with enough space, the item attracted a mean response of 1.87 as the details showed that only 5 respondents were in strong agreement, 20 in agreement, 66 disagreed and 47 strongly disagreed. Similarly, on the attractiveness of the environment to the child, the item received a mean response of 2.35 as the details showed that 34 respondents were in strong agreement, 20 in agreement, 45 disagreed and 39 strongly disagreed.

In summary, the respondents were in agreement that the Centres had met the prescribed standard for teaching/caring and learning environment in the North-West Geo-political zone of Nigeria, asserting that their locations were acceptable to the communities and they were within walking distance. In addition, the ECCDE classrooms provided

children with space for storing their personal belongings. However, the play-grounds did not have enough space for children to comfortably play while classrooms were not well ventilated. Similarly, the ECCDE environment was not decorated with variety of colours, textures, visual dimensions and perspectives, hence not attractive to children. This is an indication of the inadequacy of play-grounds and failure of the environment to attract children's regular attendance of the programme.

Research Question No. 4: How adequate are the provision of educational resources in the Centres for early childhood care development and education in the North-West Geopolitical zone of Nigeria?

Responding to this research question, the ECCDE Teachers addressed all the items (1-10) and the result showed as follows:

Table 4.6: Perception of Respondents on Educational Resources:

S/N		Response categories					
		SA	A	D	SD	MEAN	STD
1	There is a resource centre where teaching aids, audio-visual materials, posters, charts etc. are stored.	101	22	6	9	3.59	0.81
2	Human Resources: there are qualified, trained and experienced teachers and trained caregivers.	77	0	61		3.12	0.99
3	Health Care: there is provision of First-Aid and a Nurse	4	21	64	49	1.87	0.78
4	Instructional Material: ECCDE Centres are provided with IECD policy, curriculum, caregiver manual, flash card, chalk/board, radio, television etc.	87	20	24	7	3.36	0.77
5	Art materials: plants, clay, drawing materials (crayons, pencils), papers, wet sand, sewing equipment etc.	49	45	35	9	2.29	0.85
6	Books: folktales, stories dictated by children and parents, storybooks, photo album, newspaper etc. are provided.	77	31	23	7	3.29	0.78
7	Outdoor Materials: there is provision of climbing equipment, toys, sand/mud and water, Swings Natural Science.	56	28	40	14	2.91	0.77
8	Materials to support mathematical learning: bottle tops, balance scales, attributes blocks, colours are provided.	36	23	45	34	2.44	0.85
9	Materials to support language literacy: picture books, story books, audio materials, etc. are provided.	102	12	8	7	3.58	1.06
10	Table Games: playing cards, puzzles, lotto, board games etc. are provided	33	12	76	17	2.44	0.58
	Cumulative mean					2.953	

Decision mean = 2.5000

Table 4.6 revealed the perception of Teachers on the provision and adequacy of instructional materials and educational resources in the Centres for early childhood care development and education in the North-West Geo-political zone of Nigeria. They were in agreement with six items as the cumulative mean response on the items was 2.953, which was found to be higher than the decision mean of 2.5000. On the other hand, the mean of each of item three, five, eight and ten is less than the decision and cumulative means.

Specifically, it was observed that materials to support language literacy such as picture books, story books, audio materials and so forth, were provided as the item attracted the highest mean response of 3.59. The details showed that 102 respondents were in strong agreement, 21 in agreement, 7 disagreed and 8 strongly disagreed. In the same vein, they asserted that there were resource centres where teaching aids, audio-visual materials, posters, charts and so on were stored as the item attracted the second highest mean response of 3.56. Its details showed that 101 respondents were in strong agreement, 22 in agreement, 6 disagreed and 9 strongly disagreed.

The provision of First Aid and a Nurse under health care attracted the least mean score of 1.87 as the detail showed that only 4 respondents were in strong agreement, 21 in agreement, 64 disagreed and 49 strongly disagreed. Similarly, the adequacy of materials to support mathematical learning attracted a mean score of 2.44 with 36 of the respondents in strong agreement, 23 in agreement, 45 disagreed and 34 strongly disagreed. On the provision of table games such as playing cards, puzzles, lotto, board games and so forth, which also attracted a mean score of 2.44, 33 of the respondents were

in strong agreement, 12 in agreement, 76 disagreed and 17 strongly disagreed. These, therefore, highlights the inadequacy of health care, materials for art including those to support mathematics learning and table games.

In summary, the respondents were in agreement that resources for early childhood care development and education in the North-West Geo-political zone of Nigeria were adequately provided. Specifically, majority of the respondents believed that materials to support language literacy such as picture books, story books, and audio materials and so on, were provided. Moreover, there were resource centres where teaching aids, audio-visual materials, posters, charts and so forth were stored. However, health care, materials for art as well as those to support mathematical learning and table games are inadequate.

Research Question No. 5: How has the ECCDE monitoring and supervision of the State Universal Basic Education Boards (SUBEBs) influence the Local Government Education Authorities (LGEAs) in the North-West Geo-political zone of Nigeria?

Responding to this research question, the Head Teachers addressed all the items (1-10) and the result showed as follows:

Table 4.7: Perception of Respondents on Monitoring and Supervision:

S/N	Items	Response categories				MEAN	STD
		SA	A	D	SD		
1	Monitoring and Supervision enhance successful Curriculum Implementation.	105	26	5	9	3.56	0.56
2	Monitoring and supervision personnel are professionals and experienced.	76	0	70	0	3.04	0.78
3	Cordial relationship exists between the monitoring/supervision and personnel on one hand and the ECCDE staff on the other hand.	4	22	67	53	1.84	0.478
4	Management in ECCDE includes sensitization and mobilization of stakeholders to ensure collective participation in the IECD process.	92	22	25	7	3.36	9.85
5	Management is the process of organizing and controlling human and material resources.	49	45	42	10	2.91	0.75
6	Monitoring involves follow up action which can be done within by the appropriate personnel and outside by external bodies	83	30	26	7	3.36	9.85
7	Human resources, manpower, workforce, employees and workers are key ingredients for successful attainment of organizational goals and objectives	59	30	44	13	2.92	0.75
8	Effective management includes among the other things; fund, instructional materials, monitoring and evaluation and curriculum (availability, training and utilization) etc.	43	25	44	34	2.53	0.44
9	Through teamwork schools will be more effective when parents and local citizens are actively involved	81	50	8	7	3.42	0.75
10	No educational plan however excellent it may be, can be effectively implemented if the school supervision is ineffective	36	14	79	17	2.42	0.44
	Cumulative mean					3.254	

Decision mean = 2.5000

Table 4.7 indicated that Head Teachers were in agreement with most of the items as the cumulative mean response on all of them was 3.254, which was found to be higher than the decision mean of 2.5000. Specifically, there was consensus that monitoring and supervision enhances the success of curriculum implementation as the item attracted the highest mean response of 3.56. Its details indicated that 105 respondents were in strong agreement, 26 in agreement, 5 disagreed and 9 strongly disagreed. Similarly, it was noted that the perception that schools would be more effective when parents and local citizens were actively involved attracted the second highest mean response of 3.42. The details showed that 81 of the respondents were in strong agreement, 50 in agreement, 8 disagreed and 7 strongly disagreed.

However, the existence of cordial relationship between the monitoring/supervision personnel on one hand and the ECCDE staff on the other, attracted a mean score of 1.84 as the detail showed that only 4 of the respondents were in strong agreement, 22 in agreement, 67 disagreed and 53 strongly disagreed. Similarly, on the statement that “no education however excellent it might be, could be effectively implemented if school supervision was ineffective,” 36 respondents were in strong agreement, 14 in agreement, 79 disagreed and 17 strongly disagreed, hence attracting a mean score of 2.42. As such, only the mean scores of items three and ten are less than the decision and cumulative means.

In summary, the respondents were in agreement that monitoring and supervision of ECCDE by the States’ Universal Basic Education Boards positively influence the Local Government Education Authorities in the North-West Geo-political zone of Nigeria.

Specifically, majority of the respondents believed that it enhances successful curriculum implementation eventhough there was no cordial relationship between the monitoring/supervision personnel on one hand and the ECCDE staff on the other hand. However, respondents disagreed with the statement that “no educational plan however excellent it may be, can effectively implemented if the school supervision is ineffective”.

Research Question No. 6: What methods do ECCDE Teachers use in implementing the ECCDE curriculum in the North-West Geo-political zone of Nigeria?

Responding to this research question, all the five (5) groups of respondents addressed all the items (1-10) and the result showed as follows:

Table 4.8: Perception of Respondents on Teaching Methods:

S/N	Item	Response categories				MEAN	STD
		SA	A	D	SD		
1	Discovery methods, provides the learner with necessary opportunities to discover new facts, techniques of solving problems	214	73	20	25	3.52	1.08
2	Field trip can be undertaken to places like a chemical industry, tourist centre, botanical garden, post office etc.	207	0	185	00	3.06	0.78
3	Dramatization method involves correct greeting, dressing, singing and dancing therefore it should be taught practically	12	68	168	144	1.87	0.478
4	Play involves all of the child's senses; touching, feeling, hearing, seeing and sometimes counselling all of which stimulates development	243	53	74	22	3.32	9.85
5	Play is an important vehicle for children's social, emotional and cognitive development	123	130	112	27	2.89	0.75
6	For the attainment of a specific objective, method to be chosen must be appropriate to the topic	237	86	55	14	3.39	9.85
7	Child-centred is more effective at ECCE level	162	82	109	39	2.94	0.75
8	Story telling arouses pupil's interest and make them sit attentive in the class	119	66	117	90	2.55	1.18
9	Play is quite time consuming	306	54	18	14	3.66	0.75
10	Field trip is difficult to plan and execute.	99	40	207	46	2.49	0.44
	Cumulative Mean					2.969	

Decision mean = 2.5000

Table 4.8 showed that the respondents agreed that discovery, field trip, play, storytelling and dramatization methods of teaching were in use in ECCDE schools. This

is shown by the fact that the cumulative mean of 2.969 is higher than the decision mean of 2.500. However, on item by item basis, dramatization has the least mean score of 1.87. This suggests that the method is not very popular amongst the ECCDE Teachers.

In summary, responses shows that all the methods were familiar and in used by ECCDE Teachers in implementing the curriculum with the exception of dramatization. This means that they disagree with the statement that dramatization involves correct greeting, dressing and singing. Therefore should not be use in implementing the ECCDE programme.

Research Question No. 7: What are the differences that exist in the academic performance of pupils who attended the early childhood care development and education programme and those who did not in the North-West Geo-political zone of Nigeria?

In responding to this research question, two approaches were adopted. The first being assessing the terminal examination report sheets of Primary One pupils while the second was to conduct a written test for the same category of pupils on English and Mathematics. In conducting the assessment, forty (40) pupils' terminal examination report sheets were analysed and the result showed as follows:

Table 4.9a: Descriptive Statistics on Differences between Pupils who attended ECCDE Programme and those who did not based on Terminal Examination Assessment Report

Variable	Group	N	Mean score	Std. dev	Std. Err	Remarks
Academic Performance	ECCDE	20	80.9750	17.4072	1.9461	Pupils in Kano and Katsina States who attended ECCDE programme had higher academic performance than their counterparts who did not
	NON-ECCDE	20	43.2897	29.0675	2.8100	

The outcome of the descriptive statistics as shown in Table 4.9a revealed that a difference exist in the academic performance of pupils who attended the ECCDE programme compared to those who did not as their calculated mean were 80.9750 and 43.2897 respectively. This implied a mean difference in the academic performance of 37.6853. In summary, pupils who attended the ECCDE programme had higher academic performance than their counterparts who did not pass through it.

In responding to this research question using the second approach, a written test was administered by the researcher on one hundred and twenty (120) Primary One pupils and the result indicated as follows:

Table 4.9b: Descriptive Statistics on Differences between Pupils who attended ECCDE Programme and those who did not based on Academic Performance of Pupils using Post-Test

Variable	Group	N	Mean score	Std. dev	Std. Err	Remarks
Academic Performance	ECCDE	60	44.7000	4.57241	.83480	Pupils who attended ECCDE programme had higher academic performance than their counterparts who did not
	NON-ECCDE	60	29.8000	8.26876	1.50966	

Using the ex-post facto design test, the outcome of the descriptive statistics on Table 4.9b revealed that a difference exist in the academic performance of pupils who attended the ECCDE programme compared to those who did not as their calculated mean were 44.7000 and 29.8000 respectively. This implied a mean difference in the academic performance of 14.9thereby validating the finding thatpupils who attended the ECCDE programme had higher academic performance than their counterparts who did not pass through it.

4.4 Testing of Research Hypotheses

Seven hypotheses were formulated and tested. The variables tested include the ECCDE curriculum, qualification of the Teachers, theECCDE environment, educational resources, quality assurance, teaching methods and academic performance of primary one

pupils who attended the ECCDE programme and those who did not. The assessment of the academic performance was based on the terminal examination results conducted by the centres.

In the same vein, the testing of all the hypotheses was made based on the opinions of the respondents. Analysis of Variance (ANOVA) and Duncan Multiple Range were applied to test the hypotheses at 0.05 level of significance and where the p-value was higher than the alpha value, the null hypothesis was retained but where the p-value was lower than the alpha value, then the null hypothesis was be rejected.

Null Hypothesis 1

There is no significant difference in the opinions of the respondents on the extent to which ECCDE prepares children for primary education in the North-West Geo-political zone of Nigeria.

To test this hypothesis, ANOVA, Duncan Multiple Test and Homogenous Subsets (Scheffe) were applied where all the frequencies under each variable in the items of the answered questionnaire were used to find out the differences among the respondents on their opinions concerning the extent to which the ECCDE curriculum prepared children for primary education in the North-West Geo-political zone of Nigeria.

Table 4.10a: Summary of one way Analysis of Variance (ANOVA) statistics on perception of respondents on the extent to which early childhood care development and education programme prepares children for primary education.

ANOVA

ECCDE Curriculum Preparation

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	32.143	4	8.036	.694	.597
Within Groups	4482.507	387	11.583		
Total	4514.651	391			

Table 4.10b: Summary of one way analysis of variance (Descriptive statistics) on mean perception of respondents on the extent to which early childhood care development and education programme prepares children for primary education.

Dependent: ECCDE Curriculum Preparation

Respondents	N	Mean	Std. Deviation	Std. Error
Head Teachers	146	29.2945	3.45447	.28589
ECCDE Teachers	138	29.4855	3.46038	.29457
LGEA Supervisors	68	29.6471	3.18469	.38620
SUBEB Supervisors	35	29.1714	3.55201	.60040
UBEC Coordinators	5	31.6000	.89443	.40000
Total	392	29.4413	3.39800	.17163

Table 4.10c: Summary of Analysis of Variance(Post Hoc using Scheffe test)on the mean perception of respondents on the extent to which early childhood care development and education programme prepared children for primary education.

Homogeneous Subsets(Scheffe): ECCDE Curriculum Preparation

STATUS	N	Subset for alpha = 0.05
		1
Head Teachers	146	29.2945
ECCDE Teachers	138	29.4855
LGEA Supervisors	68	29.6471
SUBEB supervisors	35	29.1714
UBEC Coordinators	5	31.6000
Sig.		.295

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 19.427.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Based on the results from Tables 4.10a, 4.10b and 4.10c, there was no significant difference among the groups of respondents on the extent to which early childhood care development and education programme in the North-West Geo-political zone of Nigeria prepared children for primary education. The first reason being that the analysis of variance statistics p value of 0.597 was found to be higher than the 0.05 alpha level of significance while the calculated t value of 0.694 was lower than the F critical of 2.60. Secondly, the descriptive statistics on their mean perception regarding the extent of preparation for primary education were 29.2945, 29.4855, 29.6471, 29.1714 and 31.6000 for Head Teachers, ECCDE Teachers, LGEA Supervisors, SUBEB Supervisors and UBEC Coordinators respectively. Lastly, the Post-hoc analysis using the Scheffe

homogenous subsets also confirmed this position as the mean perception of all the five categories of respondents was placed in the same subset indicating same level of mean perception irrespective of the status of the respondents. Consequently, the null hypothesis which stated that there is no significant difference among the groups of respondents in the extent to which early childhood care development and education programme in the North-West Geo-political zone of Nigeria prepared of children for primary education is hereby accepted and retained.

Hypothesis No. 2

The null hypothesis stated that there is no significant relationship between qualification of ECCDE Teachers and their having access to the specialization programme in early childhood care development and education in the North-West Geo-political zone of Nigeria.

Table 4.11: Summary Chi-Square (X^2) on Teachers pre-service qualification and access to courses for specialization programme in early childhood care development and education.

Variable	Very high	High	Average	Low	Total Row	X^2 Cal	Df	X^2 Critical	P
Total column	660	358	301	141	1460	452.273	5	11.07	0.000

The result from Table 4.11 showed that Head Teachers were of the belief that teachers have significant access to the specialization programme in early childhood care development and education significantly influences education of pupils in the North-West Geo-political zone of Nigeria. The reason being that the computed chi-square value of

452.275 is higher than the critical or table chi-square value of 11.07 at df of 5 and the p value of 0.000 is less than the critical value. Hence, the null hypothesis is hereby rejected.

Hypothesis No. 3

The null hypothesis stated that there is no significant difference between the actual ECCDE environment and the prescribed standards for teaching/caring and learning in early childhood care development and education schools in North-West Geo-political Zone of Nigeria.

Table 4.12: Summary of Chi-Square (X^2) between the actual ECCDE centres environment and prescribed standards for teaching/caring and learning.

Variable	Very high	High	Average	Low	Total Row	X^2 Cal	Df	X^2 Critical	P
Total column	609	202	394	155	1360	1163.23	5	11.07	0.000

Table 4.12 showed that the p value is less than the critical value because the computed chi-square value of 1163.23 is higher than the critical or table chi-square value of 11.07 at df of 5 and at p value of 0.000. This implied that the centres' environment did not meet the prescribed standards. Hence, the null hypothesis is hereby rejected.

Hypothesis No. 4

The null hypothesis stated that there is no significant difference in the provision of adequate educational resources for early childhood care development and education in the North-West Geo-political zone of Nigeria.

Table 4.13: Summary of Chi-Square (X^2) on provision of educational resources for early childhood care development and education in Kano and Katsina States.

Variable	Very high	High	Average	Low	Total Row	X^2 Cal	Df	X^2 Critical	P
Total column	622	223	382	153	1380	1144.23	5	11.07	0.000

Table 4.13 showed that ECCDE Teachers were of the belief that the provision of educational resources for early childhood care development and education is not adequate in the North-West Geo-political zone of Nigeria as the computed chi square value of 1144.23 is higher than the critical or table chi square value of 11.07 at df of 5 and at p value of 0.001. This implied that provision of educational resources for early childhood care development and education significantly influences pupils' education. Hence, the null hypothesis is hereby rejected.

Hypothesis No. 5

The null hypothesis stated that ECCDE monitoring and supervision of the State Universal Basic Education Boards has no significant influence on the Local Government Education Authorities in the North-West Geo-political zone of Nigeria.

Table 4.14: Summary of Chi-Square (X^2) on the influence of ECCDE monitoring and supervision by the States' Universal Basic Education Boards on the Local Government Education Authorities

Variable	Very high	High	Average	Low	Total Row	X^2 Cal	Df	X^2 Critical	P
Total column	658	264	410	157	1489	1911.23	5	11.07	0.001

Table 4.14 indicated that ECCDE monitoring and supervision by the States' Universal Basic Education Boards has significant influence on the Local Government Education Authorities in the North-West Geo-political zone of Nigeria because the computed chi square value of 1911.23 is higher than the critical or table chi square value of 11.07 at df of 5 and at p value of 0.001. This implied that SUBEBs are in deficit in their monitoring and supervision functions in the various ECCDE centres of the North-West Geo-political zone of Nigeria. Hence, the null hypothesis is hereby rejected.

Hypothesis No. 6

This null hypothesis stated that there is no significant difference in the methods used by ECCDE teachers in implementing the curriculum of ECCDE in the North-West Geopolitical zone of Nigeria.

Table 4.15: Summary of Chi-Square(X^2) on methods used by teachers in implementing the ECCDE curriculum.

Variable	Very high	High	Average	Low	Total Row	X^2 Cal	Df	X^2 Critical	P
Total column	1623	612	858	375	3468	1445.10	5	11.07	0.000

The result from Table 4.15 showed that the respondents computed chi-square value of 1445.10 is higher than the critical or table chi-square value of 11.07 at df of 5 and at p value of 0.000. This is an indication that there is a marked difference in methods used by the ECCDE Teachers in the North-West Geopolitical zone of Nigeria. Consequently, the null hypothesis is hereby rejected.

Hypothesis No. 7

The null hypothesis stated that there is no significant difference in the academic performance of pupils who attended the ECCDE programme and those who did not in the North-West Geo-political zone of Nigeria.

Table 4.16a: Summary of (Independent t-test) on the difference in academic performance of pupils who attended ECCDE and those who did not.

Variable	Group	N	Mean	Std. dev	Std. Err	Df	t-value	p-value	R
Academic Performance	ECCDE	20	80.9750	17.4072	1.9461	185	1.96	0.001	sig
	NON-ECCDE	20	43.2897	29.0675	2.8100				

Level of significance=0.05

t-value 1.96 > p < 0.05

Results of the independent t-test statistics in Table 4.16 showed that significant difference existed in the academic performance of pupils who attended the ECCDE and those who did not because the calculated p value of 0.001 is lower than the 0.05 alpha level of significance. Their calculated mean academic performances are 80.9750 and 43.2897 for those who attended and those who did not attend respectively. This showed that pupils who passed through the ECCDE programme had higher academic performance than their counterparts who did not attend in both States. Consequently, the null hypothesis is hereby rejected.

Table 4.16b: Summary of(Independent t-test) on the difference in academic performance of pupils who attended ECCDE and those who did not based on ex-post facto design.

Variable	Group	N	Mean	Std. dev	Std. Err	Df	t-value	P-value	R
Academic Performance	ECCDE	60	44.7000	4.57241	.83480	118	8.637	.001	Sig
	NON-ECCDE	60	29.8000	29.8000	1.50966				

Calculated t >8.637, calculated p < 0.05

Results of the independent t-test statistics on Table 4.16b showed that significant difference exist in the academic performance of pupils who attended the ECCDE and those who did not because the calculated p value of .001 is lower than the 0.05 alpha level of significance. Similarly, their calculated mean academic performances are 44.700 and 29.800 for those who attended and those who did not attend respectively. This showed that pupils who passed through the ECCDE programme had higher academic performance than their counterparts who did not attend in both States, hence the null hypothesis is hereby rejected.

Table 4.17: Summary of Hypotheses Testing

S/N	Hypothesis Statement	Statistical Test Used	Result	Level of Sig.	Decision/Conclusion
1.	There is no significant difference in the opinion of respondents on the regards to extent to which ECCDE prepares children for primary education in States of the North-West Geo-political zone of Nigeria.	Analysis of variance (ANOVA), Descriptive Statistics and Post-Hoc Homogenous Subsets (Scheffe)	F value is .694 and sig. value is .597	0.05	The hypothesis was accepted and retained to mean that there is no significant difference in the opinion of the respondents.
2.	There is no significant relationship between in the opinion of Head Teachers on the qualification of ECCDE teachers and their having access to the specialization programme in early childhood care development and education in of the North-West Geo-political zone of Nigeria.	Analysis of variance (chi-square)	Chi-square value of 452.275 is higher than the critical Chi-square value of 11.07 and sig. value is 0.000	0.05	The hypothesis was rejected to mean that significant difference existed in the opinion of the respondents.
3.	There is no significant difference in the opinions of ECCDE teachers between the actual ECCDE environment and the prescribed standards for teaching/caring and learning in early childhood care development and education schools in the North-West Geo-political zone of Nigeria.	Analysis of variance chi-square	Chi-square value of 1163.23 is higher than the critical Chi-square value of 11.07 and sig. value is 0.000	0.05	The hypothesis was rejected to mean that significance difference existed in the opinion of the respondents.
4.	There is no significant difference in the opinion of ECCDE Teachers on the provision of adequate educational resources for early childhood care development and education in of the North-West Geo-political zone of Nigeria	Analysis of variance chi-square	Chi-square value of 1144.23 is higher than the critical Chi-square value of 11.07 and sig. value is 0.001	0.05	The hypothesis was rejected to mean that significant difference existed in the opinion of the respondents.

5.	There is no significant difference in the opinion of Head Teachers on the influence of ECCDE monitoring and supervision of the States Universal Basic Education Boards (SUBEBs) has no significant influence on the Local Government Education Authorities (LGEAs) in of the North-West Geo-political zone of Nigeria.	Analysis of variance chi-square	Chi-square value of 1911.23 is higher than the critical Chi-square value of 11.07 and sig. value is 0.001	0.05	The hypothesis was rejected to mean that significant difference existed in the opinion of the respondents.
6.	There is no significant difference in the opinion of all the stakeholders on the methods used by ECCDE Teachers in implementing the ECCDE curriculum in of the North-West Geo-political zone of Nigeria.	Analysis of variance chi-square	Chi-square value of 445.10 is higher than the critical Chi-square value of 11.07 and sig. value is 0.001	0.05	The hypothesis was rejected to mean that significant difference existed in the opinion of the respondents.
7.	There is no significant difference in the academic performance of pupils who attended the ECCDE programme and those who did not inof the North-West Geo-political zone of Nigeria.	Analysis of variance independent t-test statistics.	1. The t-calculated is 10.294 higher than t-critical value of 1.96 and sig. value is 0.000. 2 nd test, the t-calculated is 8.637 higher than the critical value of 8.018 and sig. value is .000	0.05	The hypothesis was rejected to mean that significant difference existed among the groups.

4.4.1 Findings Based on the Observation Checklist

The observation was designed based on checklist format that was analysed using frequency, mean and percentage in order to find out the adequacy and availability of materials as well as resources for effective ECCDE curriculum implementation. The observation was conducted in all the 30 sampled ECCDE centres visited in the six Local Government Education Authorities of both Kano and Katsina States. The observation was designed and conducted based on material resources for effective curriculum implementation and findings made are stated below:

Table 4.18:Environment/Location of ECCDE Centres

S/N	Variables	a. Free			Likely Free			Not Free		
		Freq	Mean	%	Freq	Mean	%	Freq	Mean	%
A	Safe from physical hazard, pollution	27	16.5926	90	2	8.0000	6.7	1	1.0000	3.3
B	Free from violence	28	15.7857	93.3	1	1.0000	3.3	1	1.0000	3.3
C	Closer to school community (working distance)	27	16.5926	90	3	19.0000	10	0	0	0
D	School building: ample space	25	16.1600	83.3	3	19.0000	10	2	2.0000	6.7
E	Safe for play, work and rest	15	15.8000	50	14	16.2143	46.7	1	1.0000	3.3
F	Classroom: size, windows, roofing and light	28	16.2143	93.3	1	1.0000	3.3	1	1.0000	3.3
G	Game and sport	2	8.0000	6.7	26	16.6154	86.7	2	8.0000	6.7
H	Provision of garden/ flowers	3	19.0000	10	11	17.5455	36.7	16	16.0000	53.3
I	School resource centre	4	13.2500	13.3	6	12.8333	20	20	16.1500	66.7
j.	Enough toilets (clean and safe)	1	1.0000	3.3	29	15.7586	96.7	00	0.0000	0.0

Table 4.17 indicated that 90% of the ECCDE centres were safe from physical hazard and pollution as against 6.7% which were likely free and 3.3% found not to be free. On being free from violence, it was observed that 93.3% were free, 3.3% likely free and 3.3% not free. On those being closer to the communities (walking distance), it was found out that 90.0% were closer while 10.0% were far from the communities. Similarly, 83.3% had buildings that were standard, 10.0% below standard and 6.7% had just available buildings (available means not even fit to be recognised as a

centre/school where teaching/caring and learning should take place due to inadequacy of space for children to play or even sit while outside the classrooms or roam from one corner to another). On being safe for play, work and rest, 50.0% of the centres were found to be standard while 46.7% were below standard and 3.3% just available.

On the ECCDE centres whose classroom size, windows, roofing and light were up to standard, 93.3% centres qualified while 3.3% were below standard and 3.3% were just available. On games and sports field, 6.7% of the schools visited had standard ones with available wide space for activities while 86.7% were below standard and 6.7% did not even have the space where children would play while sitting or standing during assembly session. On the provision of garden and flowers, 10.0% of the centres maintained gardens with flowers while 36.7% had provision for garden with some flowers that were not looked after and 53.3% did not even have despite having enough space and water to facilitate their provision. On the issue of resource centre, 13.3% had standard and available ones that were equipped with educational materials, 20.0% were using the resource centres as stores for keeping unwanted or damaged materials while 66.7% had none (however, all resources including library materials were kept in the Head Teacher's office). On the provision of enough toilets (clean and safe), only 3.3% centres had standard/available toilets (standard in this context means quality building, clean with water kept in or outside the toilets and far away from the classrooms while availability refers to separate toilets for males and females). However, 96.7% of the centres were below standard because some were cracked or without roofing or doors; some were unkempt or used as refuse dump sites to the extent that even small children were not willing to go near them.

Table 4.19: Human Resources

SN		Adequate/Available			Available			Not Available		
a.	Qualified, trained and experienced teachers	21	15.9048	70	9	14.5556	30	0	0.0	0
b.	Nursery Assistant or Caregiver	9	21.0000	30	19	14.0526	63.3	2	4.5000	6.7
c.	Teacher-pupil ratio	2	9.5000	6.7	26	16.5385	86.6	2	8.0000	6.7
d.	Management and supervision personnel	17	15.8824	56.7	13	15.0000	43.3	0	0.0000	0

Based on Table 4.18, in 70% of the ECCDE centres, adequate/available and qualified teachers (with teaching qualification) were assigned to implement the programme and most of them were trained and experienced. In 30% of the centres, the available teachers were not teachers by profession. However, in all the 30 centres visited, it was observed that none of the classes lacked a teacher. On the provision of Nursery Assistant or Caregiver, it was established that 30% of the centres had Nursery Assistant or Caregiver with either primary certificate or being a secondary school drop-out helping the teacher(s) in the classrooms. In 63.3% of the centres, the Nursery Assistants or Caregivers were not adequate as it was observed that two Caregivers or just one Caregiver was assigned to look after children of more than one class whose population was 160-180 pupils or above. The remaining 6.7% of the centres lacked either a Nursery Assistant or Caregiver. It is worth highlighting that in most of

the centres operating with Nursery Assistants or Caregivers, the Parents-Teacher Associations were responsible for their remunerations.

Similarly, the teacher-pupil ratio was adequate/available in 6.7% of the centres, which mostly fell in Katsina State even though the population of pupils in a class was more than the 25-30 set by the National Policy on Education (2013). In 86.6% of the centres whose population was between 70-100 pupils, the ratio was just a teacher to a classroom. In the remaining 6.7% of the centres whose population was much higher, reaching at times 180+ pupils, two teachers and a caregiver in one classroom were observed. It was similarly observed that management and supervision by SUBEBs and LGEAs were adequate and available in 56.7% of the centres but available in 43.3% of the centres because only the latter were mostly embarking on the exercise.

Table 4.20: Educational Resources

SN	Variables	Adequate/Available			Available			Not Available		
		Frq	Mean	%	Frq	Mean	%	Frq	Mean	%
A	IECD policy	17	16.2941	56.7	12	15.0000	40.0	1	8.0000	3.3
B	Curriculum	24	15.5000	80.0	1	9.0000	3.3	5	16.8000	16.7
C	Chalk and blackboard	26	16.0000	86.7	4	12.2500	13.3	0	0.0000	0
D	Radio	1	16.0000	3.3	9	13.8889	30.0	20	16.1500	66.7
E	Television	3	11.0000		10	17.0000	33.3	17	15.4118	56.7

Table 4.19 revealed that the Integrated Early Childhood Curriculum Development (IECD) policy was adequately provided and in 56.7% of the centres, available in 40% of the centres, few in some centres while 3.3% of the centres did not even have a single copy. Similarly, the ECCDE standard curriculum was adequately/available provided and in 80% of the centres, available in 3.3% of the centres, few in some centres while 16.7% of the centres did not even have a single copy and available in 80% of the centres, available in 3.3% of the centres while 16.7% of the centres did not possess even a copy. It was further observed that majority of the centres were using the standard curriculum designed by the NERDC while some were using textbooks. Chalk and blackboards were adequately provided and made available in 86.7% of the centres while in 13.3% of the centres they were just available.

Radio was adequately provided and made available in just 3.3% of the centres purposely for the ECCDE programme while 30% of the centres had radios whose usage was shared with other pupils and 66.7% of the centres had none. Similarly,

10% of the centres were adequately availed with television sets purposely for the ECCDE programme, 33.3% of the centres had them available but shared with primary pupils and 56.7% of the centres had none.

Table 4.21: Teaching Materials

SN	Variables	Adequate/Available			Available			Not Available		
		Frq	Mean	%	Frq	Mean	%	Frq	Mean	%
A	Mathematics learning materials	1	8.0000	3.3	14	14.3571	46.7	15	17.0667	50.0
B	Language and literacy learning materials	3	11.0000	10.0	10	17.0000	33.3	17	15.1765	56.7
C	Materials for outdoor play activities equipment	3	11.0000	10.0	10	17.0000	33.3	17	15.0000	56.7
D	Art materials	1	8.0000	3.3	12	16.5833	40.0	17	15.1765	56.7
E	Manipulative	1	8.0000	3.3	4	12.2500	13.3	25	16.1600	83.3

Table 4.19b indicated that teaching materials to support learning of mathematics were adequate and available in only 3.3% of the centres, available in 46.7% and not available in 50.0% of the centres. Materials to support language and literacy learning were adequate and available in 10% of the centres, available in 33.3% and not available in 56.7% centres. Materials for outdoor play activities were adequate and available in 10% of the centres, available in 33.3% of the centres and not available in 56.7% of the centres. Art materials were found to be adequate and available in 3.3% of the centres, available in 40% of the centres and not available in 56.7% of the centres. Similarly, manipulative materials were observed to be adequate

and available in 3.3% of the centres, available in 13.3% of the centres and not available in 83.3% of the centres. This showed that the provision of teaching and learning materials was very poor because 60.7% of the centres did not possess these materials.

Table 4.22: Health

SN	Variables	Adequate/Available			Available			Not Available		
		Frq	Mean	%	Frq	Mean	%	Frq	Mean	%
A	Provision of safe water source: pipe borne water, borehole or well water	4	12.2500	13.3%	26	16.5385	86.7%	0	0.0000	0.0
B	Provision of toilets	1	8.0000	3.3	29		96.7	0	0.0000	0
C	Provision of hygiene materials: Dettol, detergent, towel and bowl or bucket	4	12.2500	13.3	26	16.5385	86.7	0	0.0000	0
D	First aid box and its contents: paracetamol, iodine, bandage, cotton wool	3	11.0000	10	17	15.4118	56.7	10	17.0000	33.3
E	Food: in good nutrition from home/school; balance diet, vitamins, protein carbohydrate	3	11.0000	10.0	27	16.5926	90.0	0	0.0000	0

Table 4.20 showed that safe drinking water was adequate and available in 13.3% of the centres while it was only available in 86.7% of the centres. The provision of toilets was the most serious and common problem in most of the centres

visited in the two States. Only in 13.3% of the centres were the toilets adequate and available while 86.7% had the toilets but some were just toilets in name. In the case of hygiene materials, they were adequate and available in only 13.3% of the centres and available in 86.7% of them even though not all the materials listed in the observation format were provided. On the issue of first aid box and its contents, it was found to be adequate and available in 10% of the centres, 56.7% of the centres had the boxes with few medications and some without even paracetamol or iodine while 33.3.0% of the centres did not have the first aid box at all.

In the case of food (nutrition), it was only found adequate and available in 10.0% of the centres while it was available in 90.0% of the centres majority of which were in Kano State, where pupils were provided with food prepared and cooked (balanced diet) in the centres or came with their food from home (some of it might be enough and rich while some was in small quantity and not balanced as required by small children who are growing up or developing).

Table 4.23: Classroom

SN	Variables	Adequate/Available			Available			Not Available		
		Freq	Mean	%	Freq	Mean	%	Freq	Mean	%
A	Seat arrangement provides traffic zone for easy movement, for example, chair/desk	2	8.0000	6.7	26	16.6154	86.6	2	8.0000	6.7
B	Provision of individual space for storing personal belongings	0	0.0000	0.0	8	17.6250	26.7	22	16.6364	73.35
C	Pictures are display at children's eye level	5	16.8000	16.7	12	14.1667	40.0	13	15.0000	43.3
D	Containers to hold materials and tools	0	0.0000	0.0	6	12.8333	20.0	24	15.5000	80%
E	Storage place for items for example, box, cardboard or locker etc.	1	8.0000	3.3	5	15.0000	16.7	24	15.0000	80%

Proper sitting arrangement is important for teaching/caring and learning especially in the case of small children. This is because it enabled the

teacher/caregiver to see each child from every corner of the classroom while he/she (teacher/caregiver) is sitting, standing or going round. However, due to over population, especially in centres located in Kano State, it was difficult to even provide seats for the children. They therefore, had to sit on bare floor and this made it difficult for teachers to go round the classroom even when the need arose. Accordingly, Table 4.21 showed that the provision of seats was adequate and available in only 6.7% of the centres, available in 86.6% and not available in 6.7%. On the provision of space for storing of personal belongings, it was observed that most of the classrooms were over crowded to the extent that there was no space for teachers and the children to move around. The alternative arrangement made by the teachers was to allow the children to keep their belongings in front of the blackboard or outside the classroom and this was feasible in only 26.7% of the centres. The arrangement was however, found not possible in 73.3% of the centres. Pictures display at children's eye level was observed to be adequate and available in only 16.7% of the centres that were mostly model schools where PTAs or non-governmental organisations such as UNICEF provided the displayed materials. In 40% of the centres, they were available and displayed at the children's eye level but majority of the pictures were not educational ones while in 43.3% of the centres there were no pictures to display at all. In the case of containers for putting materials and tools, they were observed to be available in only 20% of the centres and even here, the containers were inappropriately kept and or being misused while in 80% of the centres they were not available. On storage items like boxes, cardboards or lockers, it was observed that they were adequate and available in only model centres or where the population of the children was not high. Accordingly, they were adequate and available in 3.3% of the centres, available in 16.7% and not available in 80% of the centres.

Table 4.24:Furniture

SN	Variables	Adequate/Available			Available			Not Available		
		Frq	Mean	%	Frq	Mean	%	Frq	Mean	%
A	Chair/table for Pupils	9	14.5556	30	18	16.4444	60	3	8.0000	10
B	Chair/table for Teachers	11	14.6364	36.7	19	14.0526	63.3	0	0.0000	0.0
C	Mats stored for easy access	3	8.0000	10	18	16.4444	60	9	14.5556	30
D	Furniture is standard and in good shape	3	8.0000	10	18	16.4444	60	9	14.5556	30
E	Seats: appropriate for pupils age (4-6 years)	2	11.0000	6.7	28	15.7857	93.3	0	0.0000	0.0

Table 4.22 revealed that pupils' furniture was adequate and available in only 30% of the centres, available in 60% of the centres (though not of standard size), while 10% of the centres did not have the furniture. It was further observed that in some centres, 4-5 children were sitting on a seat meant for 2 children while some of the pupils were on bare floor. Teachers' chairs and tables were adequate and available in only 36.7% of the centres and available in 63.3% of the centres (even though in some centres they were shared like benches while in some, the teachers were using broken ones or those of the pupils). In the case of mats, they were adequate and available in 10% of the centres, available in 60% and not available in 30% of the centres.

Standard and in good shape furniture was adequate and available in 10% of the centres, available in 60% and not available in 30% of the centres. The provision of

seats according to children age (4-6 years) wasadequate and available in only 6.7% of the centres and available but not appropriate (too high) to the age of children in93.3% of the centres.

Table 4.25:Classroom Corners

SN	Variables	Standard/Adequate			Available/Inadequate			Not Available		
		Frq	Mean	%	Frq	Mean	%	Frq	Mean	%
A	Different interest corners to provide the variety of learning	1	8.0000	3.3	9	14.5556	30	20	16.1500	66.7
B	Arrangement of seats is possible for staff to provide visual supervision	0	0.0000	0.0	4	12.2500	13.3	26	15.2692	86.7
C	Sufficient space for several activities and traffic patterns do not interfere with activities	0	0.0000	0.0	4	13.2500	13.3	26	15.2692	86.7
D	Areas of quiet and active play are separate	5	16.8000	16.7	12	14.1667	40	13	15.0000	43.3
E	Set aside for one or more pupils to play	2	8.0000	6.7	6	12.8333	20	22	16.6364	73.3

Table 4.23 depicted that different interest corners to provide variety of learning were standard and adequate in only 3.3% of the centres, and available but inadequate in 20% while 66.7% of the centres lacked them. Arrangement of seats was standard and adequate in 13.3% of the centres and not available in 86.7% of the centres as the seats were not even provided due to high population of the pupils. On sufficient space for several activities, it was available but inadequate in 13.3% of the centres and not available in 86.7% of the centres mostly due to the high pupils'

population. On having separate areas for quiet and active play, they were standard and adequate in 16.7% centres but largely provided by the NGOs (especially in Model Centres of Kano State), available and not adequate in 40% of the centres and not available at all in 43.3% of the centres. Corners that were set aside for one or more pupils to play were standard and adequate in only 6.7% of the centres, available but inadequate in 20% and not available in 73.3% of the centres.

Table 4.26: Mathematics Materials

SN	Variables	Adequate/Available			Available/Inadequate			Not Available		
		Frq	Mean	%	Frq	Mean	%	Frq	Mean	%
A	Counting materials	1	8.0000	3.3	27	16.5926	90	2	8.0000	6.7
B	Colouring materials	1	8.0000	3.3	13	15.2000	43.3	16	16.0000	53.3
C	Recognizing shapes	1	8.0000	3.3	11	17.5455	36.7	18	16.4444	60
D	Written materials	1	8.0000	3.3	15	15.2000	46.7	15	15.2000	50
E	Measuring instrument	0	0.0000	0	3	19.0000	10	27	16.5926	90

Table 4.24 showed that counting materials were adequate and in variety in only 3.3% of the centres, available in 90% and non-existent in 6.7% of the centres. Similarly, colouring materials were adequate and available in 3.3% of the centres, available in 43.3% and not available in 53.3% of the centres. Pertaining to materials aiding the recognition of shapes, they were adequate and available in 3.3% of the centres, available in 36.7% and not available in 60% of the centres. On the issue of written numbers, they were adequate and available in 3.3% of the centres (mostly Model schools/centres), available in 46.7% and not available in 50% of the centres. The provision of measuring instrument was observed to be very poor in all the centres

of both States due to the fact that it was only adequate and available in only 6.7% of the centres, available in 20% and not available in 73.3% of the centres.

Table 4.27: Safety Practice (Indoor)

SN	Variables	Yes			No		
		Frq	Mean	%	Frq	Mean	%
A	Protective covers on electrical outlet	29	8.87169	96.7	1	22.0000	3.3
B	Control or knobs are not accessible to reach of pupils	30	15.5000	100	0	0.0000	0
C	Medicine or first aid boxes are placed out of children reach	30	15.5000	100	0	0.0000	0
D	Heavy or injury objects are placed out of children reach	29	8.87169	96.7	1	22.0000	3.3
E	Broken seats and damaged facilities are kept out of reach of pupils	30	15.5000	100	0	0.0000	0

Based on Table 4.25, safety practice was given prominence in majority of the centres. For instance, in 96.7% of the centres there were protective covers on electrical outlets and the same percentage had placed heavy or injury prone objects out of children's reach. In the same vein, all the centres (100%) had their medicines/first aid boxes, broken seats and damaged facilities out of the pupils' reach.

4.5 Summary of Major Findings

This research, which was conducted on the evaluation of the implementation of early childhood care development and education curriculum in North-West Geo-political zone of Nigeria came up with the following as its major findings:

Table 4.17 showed the summary of tested hypotheses and results therefrom. Basically, hypothesis 1 was accepted and retained while hypotheses 2, 3, 4, 5, 6 and 7 were rejected. The results of the hypotheses could therefore be interpreted as follows:

1. There was no significant difference in the perception of all the groups of respondents with regard to preparation of children for primary education despite attending the early childhood care development and education programme in Kano and Katsina States of the North-West Geo-political zone of Nigeria.
2. There was significant difference in the perception of Head Teachers on the qualification of ECCDE teachers and their having access to the specialization programme in early childhood care development and education programme in Kano and Katsina States of the North-West Geo-political zone of Nigeria.
3. There was significant difference in the perception of ECCDE Teachers in respect of the ECCDE environment meeting the specified standards for teaching/caring and learning in Kano and Katsina States of the North-West Geo-political zone of Nigeria.
4. There was significant difference in the perception of ECCDE Teachers pertaining to the provision of adequacy of educational resources for early childhood care development and education programme in Kano and Katsina States of the North-West Geo-political zone of Nigeria.

5. There was significant difference in the perception of Head Teachers with regard to the influence ECCDE monitoring and supervision by the States' Universal Basic Education Boards on the Local Government Education Authorities in Kano and Katsina States of the North-West Geo-political zone of Nigeria.
6. There was no significant difference in the perception of the groups of respondents on methods used by teachers in implementing the ECCDE curriculum in Kano and Katsina States of the North-West Geo-political zone of Nigeria.
7. There was significant difference in the academic performance of pupils who attended the ECCDE programme and those who did not in Kano and Katsina States of the North-West Geo-political zone of Nigeria.

4.6 Discussion of Findings

Early childhood care development and education is a fundamental and essential programme as it specifically prepares children for primary and other levels of education. This implies that the more effective the implementation of the ECCDE curriculum is, the more impact the programme will have not only on the children but also to national development. This research therefore, has made significant findings that are discussed in the succeeding paragraphs.

On the extent to which ECCDE prepare children for primary education, the findings revealed that there was difference because the mean perception of the respondents shows that they all agree that the programme prepares children for primary education in the zone. The analysis of their responses based on homogenous subsets statistics established a p value of 0.597 that was higher than the alpha value of

0.05, which means the null hypothesis should be retained. The responses therefore, agrees with UNESCO (2014), which stated that early childhood is a time of remarkable brain growth, and that these years lay the foundation of subsequent learning and development.

Similarly, the opinion of the respondents agrees with the view of Biswas (2013), who highlighted that pre-primary education has become a popular strategy to protection of drop-out from formal education of children all over the world. In addition, their opinion agreed with one of the findings made by this research that the programme prepares children for primary education based on the analysis made on the academic performance of pupils who attended the ECCDE programme and those who did not at the primary one level.

On the qualification of ECCDE Teachers, the finding shows that the respondents were in agreement that majority of the ECCDE teachers were qualified because Government recruits qualified and experienced teachers to implement the programme. However, the opinion of the Head Teachers contradicts the statement made by Amadi(2003), who stated that among the challenges facing the ECCDE centres was the preponderance of unqualified teachers. The respondents were also in agreement that teachers' participation in decision-making would enhance teaching and learning just like what Suleiman (2012), citing Fafunwa (1974), stated that no government policy on education can be realized if it does not at the initial stage, perceive problems and opportunities before initiating a decision-making process, hence the teacher is the most qualified resource person to be consulted. On the teachers having access to the specialization programme in ECCDE, the respondents were of the view that such teachers do not have opportunities of attending seminars

and workshops, which Nworgu (2001), defined as processes for continued updating of teachers' knowledge, skills and interest in their chosen field.

Pertaining to the ECCDE environment, the finding reveals that the ECCDE Teachers were in agreement that the locations of the centres were acceptable to the communities (walking distance), safe, secure, fenced, free from excessive noise to the environment and stimulating for the child to play, explore and discover. The responses shows that majority of the respondents strongly agreed that the environment met all the stated variables, which was also corroborated by the findings of the physical observation conducted as part of this research.

On the provision of play-ground and enough space that would encourage children's regular attendance to the centres as well as having ventilated classrooms, the respondents disagreed that they were available in the centres. This did not supported what Jacob (2012), stated that learning environment enough space and the physical space should be free from physical hazards, unsafe equipment, pollution and violence. The respondents' opinion was also supported by the findings made through the conducted physical observation. However, what was noticed in the course of the observation was lack of maintenance culture, inadequate provision of play equipment and over-crowding thereby affecting the degree of ventilation and classroom management as Aleshin (2012), opined that the features of an effective ECCDE centre should include close location, environment acceptable to community (walking distance), safe, secure, fenced and free from excessive noise.

On educational resources such as provision of resource centre, materials to support language literacy, instructional materials, human resources and outdoor materials, the respondents who were the ECCDE Teachers were in agreement that

they were adequate in the centres. However, findings made based on the physical observation conducted did not agree with the opinion of the respondents because 66.7% of the centres did not have a resource centre; language learning materials were not available in 56.7% of the centres; and instructional materials like radio and television were lacking in 66.7% and 56.7% of the centres respectively.

Similarly, Nursery Assistants and Caregivers were observed to be adequate in only 30% of the centres, which negates NERDC (2008), statement that such staff are an integral part of nursery school staffing since they assist during class, group activities and supervise children during outdoor play, at meals or while in the toilet. Similarly, the teacher-pupils ratio was only adequate in 6.7% of the centres which corroborates Sooter (2013) finding that the policy position of teacher-pupil ratio of 1:25 is not implemented due to lack of supervision or monitoring. Where the observation findings agreed with the respondents is on the provision of qualified and experienced teachers because all the classes in the visited centres had such teachers. However, the respondents were not in agreement on the provision of health care and sporting/game facilities in the centres, which was also corroborated by the physical observation findings.

Regarding monitoring and supervision popularly known as quality assurance, the respondents who were the Head Teachers agree that it enhance successful curriculum implementation and that through team work, schools will be more effective when parents and local citizens are actively involved. This is in line with Sooter (2013), who asserts that no educational plan no matter how excellent it may be, can be effectively implemented if the school supervision is ineffective.

The respondents however, did not agree that there was cordial relationship between the monitoring/supervision personnel on one hand and the ECCDE staff on the other, which does not correspond with UBEC (2013), definition of supervision as the act of providing leadership through guiding, encouraging, assisting, advising, refreshing and stimulating children and caregivers in ECCDE environment. They were not also in agreement with the variable which stated that no educational plan however excellent it may be, can be effectively implemented if the school supervision is ineffective, which tallies with Sooter (2012), stance.

On teaching methods used by ECCDE Teachers to implement the programme, all the stakeholders were in agreement with four methods with the exception of dramatization to wit: discovery, field trip, play and story-telling as the most effective with play receiving the highest approval rating of 243 strong agreement, which tallies with Jacob (2012), assertion that students do not like school not because the work is too hard but for being boring! Moreover, they agreed that even though play is quite time consuming, still it should be used as a teaching method at ECCDE level because it involves all of the child's senses of touching, hearing, seeing and at times counselling, all of which stimulate development. This position corresponds with what Yusuf (2012), identified as the advantages of play-way method to include allowing pupils the freedom to choose any activity to carry out and the freedom to experiment with what they are learning about even though it is time consuming.

Similarly, the respondents agreed that discovery method provides the learner with necessary opportunities to discover new facts and techniques of solving problems thereby agreeing with Joolingen (1999), who stated that discovery learning is a type of learning where learners construct their own knowledge by experimenting

with a domain and inferring rules from the result of these experiments. The respondents' opinion further buttress what Borthick and Jones (2000), stated that in discovery learning, participants learn to recognize a problem, characterize what a solution would look like, search for relevant information, develop a solution strategy and execute the chosen strategy.

On whether pupils who attended the ECCDE programme perform academically better than those who did not attend it but happened to be in the same class and studying the same subject(s), this was approached in two ways. First, through assessing the pupils terminal report sheets containing their academic performance based on the examinations conducted by their respective schools. The second approach was through ex-post facto design whereby a class work was purposely organised by the researcher to test pupils in primary 1 using the Nigeria Primary English Pupils' Book 1 (2010), which complies with the 9-year Basic Education Curriculum English Language for Primary 1, NERDC (2006).

Outcomes based on the two approaches revealed that those who attended the ECCDE programme performed academically better than those who did not attend. In the first instance, descriptive statistics showed the calculated mean academic performance of those who attended the programme was 80.9750 as against 43.2897 for those who did not attend. In the second instance where the ex-post facto design test approach was used, the descriptive statistics indicated the calculated mean of 44.7000 and 29.8000 academic performance for those who attended the programme and those who did not attend respectively. These findings are in line with Biswas (2013), who stated that pre-primary education have a significant impact on the performance of children in basic education programme. Moreover, they agree with

UNICEF (1998), which establishes that those who passed through the ECCDE programme repeat classes less often in primary school, they complete primary school more often and they require less remedial programme.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion and recommendations of the study whose main objective was the Evaluation of the Implementation of Early Childhood Care Development and Education Curriculum in Kano and Katsina States of the North-West Geo-Political zone of Nigeria.

5.2 Summary

The research attempted to assess the evaluation of the implementation of early childhood care development and education curriculum in the North-west Geo-political zone of Nigeria in five chapters. Chapter one contained the background of the study, which highlighted the history of the education system in Nigeria and types as well as objectives of the ECCDE programme. It also contained the statement of the problem focusing on inadequacy of physical facilities such as infrastructure, instructional materials, human resources and fund. The objectives of the study, which are in the same chapter, included amongst others, to assess whether the early childhood care development and education curriculum prepares children for primary education; determine the qualifications of ECCDE teachers and their accessibility to the specialization programmes in early childhood care development and education; examine whether the ECCDE environment meets the prescribed standards for teaching/caring and learning; ascertain the adequacy of provision of educational resources in the centres for early childhood care development and education; and assess the academic performance of pupils who attended the ECCDE programme and those who did not in the North-West Geo-political zone of Nigeria. The research

questions, hypotheses and basic assumptions of the study were however derived from the objectives. Chapter two however, contained definition of concepts, review of theories and literature as well as empirical studies related to the research.

Chapter three contained the research design, which were descriptive survey and ex-post facto. Two States were selected as sample, namely Kano and Katsina in which three (3) education zones and three (3) LGEAs were sampled from each State while one hundred and forty-six (146) centres were sampled and visited in the two States. Similarly, three hundred ninety-six (396) respondents were sampled in both States that included Head Teachers, ECCDE Teachers, LGEAs Supervisors, SUBEBs Supervisors and UBEC ECCDE Coordinators, Abuja. Simple random sampling was adopted for sampling of the education zones and the LGEAs; expert sampling for sampling of the respondents; and convenient sampling was adopted in choosing centres for the conduct of the physical observation. The instrument used for data collection was questionnaire, observation and independent t-test while the data collected were subsequently analysed using descriptive statistics. Hypothesis 1 was tested using ANOVA, descriptive statistics and Post Hoc using Scheffe test; Hypotheses 2, 3, 4, 5 and 6 were tested using chi-square (χ^2); and Hypothesis 7 was tested using independent t-test.

Thus, the study revealed that:

- 1) ECCDE curriculum prepares children for primary education in Kano and Katsina States of Nigeria even though teachers find it difficult to implement the curriculum in both States.

- 2) ECCDE Teachers received inadequate in-service training from the SUBEBs and or the LGEAs and that they possessed in-adequate methods, skills techniques and strategies for teaching.
- 3) Play-grounds were not adequately equipped while classrooms lacked enough space and were not well ventilated. The centres' environment was not attractive to children as they lacked variety of colours, textures, surfaces, visual dimensions and perspective to encourage children's regular attendance at the centres.
- 4) Provision of first-aid box and a nurse for health care services was inadequate likewise table-games such as playing cards, puzzles, lotto, board games and so forth. Similarly, there was inadequacy of materials to support mathematical learning such as attributes blocks, coloured beads and so on.
- 5) There was no cordial relationship between the monitoring/supervision teams from SUBEBs/LGEAs and the ECCDE staff while fund/instructional materials to support the monitoring and supervision exercise were also inadequate.
- 6) Dramatization method, which involved correct greeting, dressing, singing and dancing was not adopted by ECCDE Teachers likewise field trip that was viewed as difficult to execute.
- 7) There was difference in the academic performance of pupils as those who attended the ECCDE programme had higher performance than their counterparts who did not pass through it.

5.3 Conclusion

Based on the findings of this study, it can be concluded that the ECCDE programme has been recognized and accepted in the North-West Geo-political zone of Nigeria. Moreover, efforts are being made to implement it as designed in many of

the ECCDE centres. However, the implementation of the curriculum is facing some challenges such as inadequate in-service training for ECCDE Teachers by the State Universal Basic Education Boards (SUBEBs) and by the Local Government Education Authorities (LGEAs) as indicated by the Head Teachers in their responses. Similarly, over-population of pupils in classrooms, which contradicts the minimum set for teacher-pupils ratio is another challenge facing the implementation of the programme.

Other challenges include sub-standard and inadequate pupils' furniture; inadequacy of materials to support mathematics/language and literacy learning materials, art and manipulative materials as well as outdoor play equipment; inadequate provision of toilets, hygiene materials and first aid boxes; and the non-availability/insufficiency of audio and visual equipment such as radio and television sets.

5.4 Recommendations

The following recommendations were proffered on the basis of the findings from this study:

The ECCDE programme just like the UBE, should be made compulsory by Government since it prepares children for further education. Its curriculum should be simplified by breaking the contents into units of topics and each provided with the appropriate teaching method to effectively guide teachers in preparing their lessons and presentations. Similarly, the curriculum should identify and indicate local teaching aids and materials that could be improvised by teachers or used to complement modern ones.

Although the teachers are exposed to training programmes through in-service, workshops and seminars to update their knowledge and skills, it is recommended that more teachers with ECCDE qualification as their area of specialization should be employed for the effective implementation of the programme in Kano and Katsina States of the North-West Geo-political zone of Nigeria.

Efforts should be intensified by Governments to address the problem of over-population as the teacher-pupils ratio is far from the set minimum standards in majority of the centres. This would further help, not only in classroom management and provision of adequate space, but also improve ventilation as well as effective implementation of the curriculum. Similarly, both the ECCDE compound and classrooms should be decorated with different pictures in variety of colours, textures, surfaces and visual dimensions as well as perspectives in order to encourage pupils' regular attendance.

It is recommended that stakeholders should ensure that ECCDE centres are provided with well-equipped First Aid boxes and adequate materials that would support mathematics learning such as manipulative, toys, sea shells, balance scales, attributes blocks, coloured beads and colours while teachers should be encouraged to improvise them. Furthermore, caregiver-pupils ratio should be looked into to cater for the ever increasing and large number of pupils.

Reports on quality assurance visits by SUBEB officials should be availed to the LGEAs not only for implementation but to ginger them to sustain their interest in the promotion of the ECCDE programme. Similarly, Supervisors from SUBEBs and the LGEAs should foster cordial relationships between them on one hand, and the staff in the various ECCDE centres on the other, to enhance effective supervision and school

management as well as facilitate curriculum implementation in Kano and Katsina States of the North-West Geo-political zone.

For effective teaching and learning, it is recommended that Head Teachers and quality assurance Supervisors should encourage ECCDE Teachers to apply the appropriate teaching method when and where necessary including dramatization that was regarded of least importance for the attainment of the desired objectives. In addition, play-way and field trip methods, which are regarded as time consuming and difficult to execute by the teachers, should be used where applicable as any teaching method chosen must always be appropriate to a topic for the achievement of a specific objective.

Stakeholders should appreciate and recognise the important role early childhood care development and education programme plays in laying the foundation of future academic performance of children and therefore, ensure their enrolment before reaching primary school age. Furthermore, there should be continuous enlightenment of communities through the media including usage of dramatization on the imperativeness of the ECCDE programme in Kano and Katsina States of the North-West Geo-political zone of Nigeria.

5.5 Suggestions for Further Studies

Since no research can be exhaustive therefore this research, identified the following areas for further study:

1. Comparative Analysis on the Implementation of Early Childhood Care Development and Education Curriculum between States of the North-West Geo-political Zone of Nigeria.

2. Impact of Socio-cultural Practices on the Attendance of Early Childhood Care Development and Education Programme in North-West Geo-political Zone of Nigeria.

5.6 Contribution to Knowledge

The study, “evaluation of the implementation of early childhood care development and education curriculum in North-West Geo-political zone of Nigeria” is a valuable research that can contribute to knowledge. The contributions can be as follows:

1. The research has established that the ECCDE programme prepares children for primary education but is facing many challenges, notable of which are inadequate in-service training such as workshops and seminars for the teachers; ill-equipped play-grounds; over-crowded classrooms; inadequacy of materials to support language literacy; lack of cordial relationship between the monitoring/supervision personnel and the ECCDE staff; and the neglect of some teaching methods thereby affecting the successful implementation of the curriculum. Since identification of a problem is the most important step towards solving it, this study will pose a challenge to the stakeholders in the education sector in their search for viable solutions even beyond the recommendations proffered by this research.
2. The attention of curriculum experts, UBEC, SUBEBs, LGEAs, NGOs, Teachers, Parents and the society at large will be drawn to the identified problems towards correcting the peculiar anomalies for the successful implementation of the ECCDE programme not only in the North-West Geo-political zone but in Nigeria at large.

3. The study has made recommendations towards tackling the identified problems, especially the difficulties faced by teachers in implementing the ECCDE curriculum designed by NERDC, which if addressed will lead to the successful implementation of the curriculum and enhance the academic performance of pupils.

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APPENDIX I

Distribution of States, Education Zones, LGEAs and ECCDE Centres in North-West Geo-Political Zone of Nigeria

State	Senatorial District	Educ. Zones	LGEA	ECCDE Centres	Pupil's Enr.	Head Teachers	ECCDE Teachers	LGEA sup.	SUBEB sup.	UBEC coord.
Jigawa	South-West	3	B/Kudu, Buji, Dutse, Gwaram, Kiyawa, Jahun, Miga	305	30,140	305	788	896	64	30
	North-East		Auyo, Birniwa, Guri, Hadejia, Kaugama, K/Hausa, K/Kasamma, M/Madori							
	North-West		Babura, Gagarawa, Garki, Gwiwa, Kazaure, Maigatari, Roni, Ringim, S/Tankarkar, Taura, Yankwashi, Gumel							
Kaduna	North	3	Kubau, Ikara, Makarfi, Soba, S/Gari, Zaria, Lere, Kudan	1533	83,276	1533	607	1,789	26	
	Central		B/Gwari, Giwa, Igabi, Kaduna North, Kaduna South, Chikun, Kajuru							
	South		Jema'a, Jaba, Kaura, Zangon Kataf, Kachia, Kagarko, Sanga							

Kano	Central	10	Dala, Gwale, Gezawa, Tarauni, Fagge, G/Mallam, Kano Municipal, Kumbotso, Kura, Madobi, Minjibir	1,458	115,367	1,458	717	1,428	815	
	North		Nassarawa, Ungogo, Warawa, Bichi, Shanono, Bagwai, Danbatta, Makoda, Dawaki, Gabasawa, Gwarzo, Kabo, R/Gado, Tofa, Tsanyawa, Kunchi, Karaye							
	South		Albasu, Babeji, Bunkure, Doguwa, Gaya, Kiru, Rano, Takai, Ajingi, Rogo, Kibiya, T/Wada, Garko, Wudil, Sumaila							
Katsina	North	7	Daura, Zango, Mai'adua, Mashi, Mani, Ingwa, Bingawa, Sandamu, Dutsi, Kankia, Kusada, Baure	437	45,190	437	267	136	18	
	South		Funtua, Faskari, Danja, Dandume, Bakori, Kankara, Malumfashi, Kafur, Musawa, Matazu, Sabuwa							
	Central		Katsina, Kaita, Jibia, Batsari, Safana, Dutsinma, Kurfi, Batagarawa, Rimi, Charanchi,							

			Danmusa							
Kebbi	North	3	Arewa, Argungu, Augie, Bagudo, Daudi, Suru, Jega	245	11,719	245	174	1,789	26	
	Central		Aleiro, B/Kebbi, Bunza, Gwandu, Kalgo, Koko, Bessi, Maiyama							
	South		Fakai, Ngaski, Sakaba, Shanga, Wasagu/Danko, Yauri, Zuru							
Sokoto	North	3	Tangaza, Binji, Silame, Gudu, Kware, Wamakko, Sokoto North, Sokoto South	333	23,822	333	523	1,266	67	
	South		Dange Shuni, Tureta, Bodinga, Shagari, Yabo, Tambuwal, Kebbie							
	East		Isa, S/Birni, Wurno, Goronya, Rabah, Gaga, Illela, Gwadabawa							
Zamfara	North	3	K/Namoda, Shinkafi, Zurmi, B/Magaji, T/Mafara	244	13,829	244	442	342	16	
	Central		Gusau, Tsafe, Bungudu, Maru							
	West		Marudun, Bakura, Anka, Bukkuyum, Gummi							
7	21	32	186	4555	323,343	4555	3518	7579	1039	5

Source: UBEC (2010), Data Base

APPENDIX IIA

**Table 3.2a: DISTRIBUTION OF POPULATION OF ECCE CENTRES, ECCDE TEACHERS, HEAD TEACHERS, SUPERVISORS LGEAs/SUBEBS IN KANO AND ECCDE COORDINATORS UBEC
B: SELECTED ZONES AND LGEAS ARE SHOWN IN BOLD**

S/N	ZONES	LGEAs	No. of ECCE Centres	Pupil's Enrolment	ECCE Teachers	Head Teachers	LGEA Sup.	SUBEB Sup.	UBEC Coord.
1.	Bichi	Bichi	36	5,339	4	36	18	17	5
		Bagwai	14	2,535	8	14	10		
		Kunchi	3	1,357	2	3	11		
		Tsanyawa	2	2,251	2	2	20		
		R/Gado	11	1,130	0	11	15		
2.	Danbatta	Danbatta	36	5,506	34	36	21		
		Tofa	14	1,109	6	14	15		
		Makoda	58	5,969	8	58	13		
		D/Tofa	22	6,008	32	22	10		
3.	Gaya	Gaya	14	1,524	2	14	21		
		Ajingi	38	3,136	7	38	18		
		Albasu	53	3,899	17	53	19		
		Takai	10	2,221	1	10	18		
4.	Gwarzo	Gwarzo	38	4,024	13	38	21		
		Shanono	19	2,535	8	19	17		
		Kabo	11	3,047	4	11	21		
		Karaye	20	1,333	6	20	19		
		Rogo	15	4,409	1	15	21		
5.	Minjibir	Minjibir	46	6,063	13	46	25		
		Gezawa	52	7,770	9	52	24		
		Gabasawa	20	2,060	13	20	16		
		Ungogo	74	7,839	16	74	26		
6.	Municipal	Municipal	80	10,736	96	80	18		
		Gwale	50	9,843	79	50	25		
		Dala	52	7,597	33	52	21		
		Tarauni	55	5,987	46	55	14		
7.	Nassarawa	Nassarawa	115	11,241	76	115	29		
		Fagge	35	5,220	6	35	15		
8.	Rano	Rano	20	1,996	0	20	16		
		G/Malam	44	6,641	13	44	11		
		Bunkure	22	3,985	7	22	18		
		Kibiya	35	1,286	6	35	12		
		Madobi	39	3,136	6	39	19		
		Kura	7	833	0	7	15		
		Kumbotso	53	8,030	38	53	30		

9.	T/Wada	T/Wada	46	5,774	27	46	24		
		Kiru	43	4,242	8	43	28		
		Bebeji	25	3,178	21	25	21		
		Doguwa	21	9,923	10	21	18		
10.	Wudil	Wudil	16	5,125	9	16	17		
		D/Kudu	34	5,133	11	34	20		
		Garko	6	2,892	6	6	13		
		Sumaila	6	1,216	2	6	13		
		Warawa	18	2,565	11	18	19		
TOTAL			1,428	197,632	717	1,428	815	17	5

Source: Source: Kano SUBEB Department of Planning Research and Statistic 201/2013

APPENDIX IIB

Table 3.2b: DISTRIBUTION OF POPULATION OF ECCE CENTRES, ECCDE TEACHERS, HEAD TEACHERS, SUPERVISORS LGEAS/SUBEB

S/N	ZONE	LGEA	No. cen.	Pupil's Enr.	Head Teachers	ECCDE Teacher	LGEAs Super	SUBED Super
1	KATSINA	Katsina	31	4514	31	34	7	18
		Kaita	10	1292	10	3	4	
		Jibia	11	1643	11	5	4	
		Batagarawa	10	1034	10	23	3	
		Rimi	10	1939	10	2	5	
		Charanchi	6	938	6	15	3	
2	DUTSIN-MA	Dutsin-ma	16	1481	16	6	8	
		Batsari	13	1426	13	0	3	
		Safana	7	1323	7	5	3	
		Kurfi	13	1288	13	12	6	
		D/musa	51	3091	51	13	12	
3	KANKIA	Kankia	12	1077	12	3	4	
		Ingawa	27	2700	27	2	3	
		Kusada	20	1259	20	1	2	
		Matazu	5	1147	5	6	4	
		Musawa	4	248	4	18	4	
4	MALUMFASHI	Malumfashi	32	3853	32	6	7	
		Kafur	4	48	4	9	3	
		Kankara	3	285	3	8	4	
5	FUNTUA	Funtua	10	0	10	4	5	
		Bakori	31	1750	31	9	4	
		Sabuwa	26	1705	26	4	5	
		Faskari	3	285	3	4	3	
		Dandume	6	441	6	2	2	
		Danja	8	731	8	3	3	
6	MANI	Mani	6	1377	6	4	3	
		Mashi	8	2426	8	2	2	
		Dutsi	3	585	3	4	2	
		Bindawa	7	1029	7	9	2	
7	DAURA	Daura	20	3466	20	11	8	
		Mai'adua	5	266	5	15	3	
		Sandamu	6	1685	6	1	2	
		Baure	5	732	5	10	1	
		Zango	8	691	8	14	2	
Total	7	34	437	47755	437	267	136	18

Source: Katsina SUBEB Department of Planning Research and Statistic 2013/2014

NB:-1 All the ECCE Centres were attached to primary Schools, sharing the same premises

APPENDIX IIIA

TABLE 3.3a: DISTRIBUTION OF TARGETED EDUCATION ZONES, LGEAs, ECCDE CENTRES, PUPILS, HEAD TEACHERS, ECCDE TEACHERS, LGEAs/SUBEBS SUPERVISORS IN KANO AND ECCDE COORDINATORS UBECB: SELECTED ZONES AND LGEAS ARE SHOWN IN BOLD

S/N	ZONES	LGEAs	No. of ECCE Centres	Pupil's Enr.	Head Teachers	ECCE Qualified Teachers	LGE A Sup.	SUB EB Sup.	UBE C ECC coord.
1	Danbatta	Danbatta	36	5,506	36	34	21	17	5
		Tofa	14	1,109	14	6	15		
		Makoda	58	5,968	58	8	13		
		D/Tofa	22	6,008	22	32	10		
			130	18591	130	80	59		
2.	Municipal	Municipal	80	10,736	80	96	18		
		Gwale	50	9,843	50	79	25		
		Dala	52	7,597	52	33	21		
		Tarauni	55	5,987	55	46	14		
			237	34163	237	254	78		
3.	T/Wada	T/Wada	46	5,774	46	27	24		
		Kiru	43	4,242	43	8	28		
		Bebeji	25	3,178	25	21	21		
		Doguwa	21	9,923	21	10	18		
			135	23117	135	66	91		
TOTAL			502	75871	502	370	228	17	5

Source: Source: Kano SUBEB Department of Planning Research and Statistic 2011/2013

APPENDIX IIIB

**TABLE 3.3b: DISTRIBUTION OF TARGETED EDUCATION ZONES, LGEAs, ECCDE CENTRES, PUPILS, HEAD TEACHERS, ECCDE TEACHERS, LGEAS/SUBEB SUPERVISORS IN KATSINA STATE
SELECTED ZONES AND LGEAS ARE SHOWN IN BOLD**

S/N	ZONE	LGEA	ECCE Centre	Pupil's Enr.	Head Teachers	ECCDE Teachers	LGEA Supervisors	SUBEB.
1	KATSINA	Katsina	31	4514	31	34	7	18
		Kaita	10	1292	10	3	4	
		Jibia	11	1643	11	5	4	
		Batagarawa	10	1034	10	23	3	
		Rimi	10	1939	10	2	5	
		Charanchi	6	938	6	15	3	
		67	11360	67	82	26		
2	DUTSIN-MA	Dutsin-ma	16	1481	16	6	8	
		Batsari	13	1426	13	0	3	
		Safana	7	1323	7	5	3	
		Kurfi	13	1288	13	12	6	
		Dan-musa	51	3091	51	13	12	
		100	8609	100	36	32		
7	DAURA	Daura	20	3466	20	11	8	
		Mai'adua	5	266	5	15	3	
		Sandamu	6	1685	6	1	2	
		Baure	5	7325	5	0	1	
		Zango	8	691	8	0	2	
				14333	44	27	16	
TOTAL		16	222	34302	222	145	74	18

Source: Katsina SUBEB Department of Planning Research and Statistic 2013/2014

NB:- 1 All the ecce centres were attached to primary schools, sharing the same premises

APPENDIX IV

Required sample size, Given A finite Population where N=population and n= Sample

N – n	N – n	N – n	N – n	N – n
10 – 10	100 – 80	280 – 162	800 – 260	2800 – 338
15 – 14	110 – 86	290 – 165	850 – 265	3000 – 341
20 – 19	120 – 92	300 – 169	900 – 269	3500 – 346
25 – 24	130 – 97	320 – 175	950 – 274	4000 – 351
30 – 28	140 – 103	340 – 181	1000 – 278	4500 – 354
35 – 34	150 – 108	360 – 186	1100 – 285	5000 – 357
40 – 32	160 – 113	380 – 191	1200 – 291	6000 – 361
45 – 40	170 – 118	400 – 196	1300 – 297	7000 – 364
50 – 44	180 – 123	420 – 201	1400 – 302	8000 – 367
55 – 48	190 – 127	440 – 205	1500 – 306	9000 – 368
60 – 52	200 – 132	460 – 210	1600 – 310	10000 – 370
65 – 56	210 – 136	480 – 241	1700 – 313	15000 – 375
70 – 59	220 – 140	500 – 217	1800 – 317	20000 – 377
75 – 63	230 – 144	550 – 226	1900 – 320	30000 – 379
80 – 66	240 – 148	600 – 234	2000 – 322	40000 – 380
85 – 70	250 – 152	650 – 242	2200 – 327	50 000 – 381
90 – 73	260 – 155	700 – 248	2400 – 331	75000 – 382
95 – 76	270 – 159	750 – 254	2600 – 335	100000 – 384

(Adopted from Krejcie & Morgan, 1970, p.608)

Krejcie and Morgan stated that, using this calculation, as the population increase, the sample size increase at a diminishing rate (plateau), and remains eventually constant at slightly more than 380 cases. There is little to be gained to warrant the expense and energy to sample beyond about 380 cases. Alerk and Settle (1995) provide similar evidence.

APPENDIX VA
LETTER OF INTRODUCTION



DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM
Faculty of Education
AHMADU BELLO UNIVERSITY, ZARIA

Vice-Chancellor: Professor Ibrahim Garba, B.Sc (Hons) Geology, M.Sc (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS
Head of Department: Dr. Bashir Maina, B.Ed (Unimaid), M.Ed., Ph.D (ABU)

Our Ref: DEFC/S.25

Date: _____

Dear Sir,

LETTER OF INTRODUCTION

The bearer, _____, with Registration Number _____, is a student in this department. He /She is carrying out research, being part of requirement for graduation, in _____. He/She needs certain information in your organization. Kindly, allow him/her have access to information in your organization. The information obtained will be used for research purpose only. The topic of his/her research is:

Thanks in anticipation of your kind response.

Yours sincerely,

Dr. Bashir Maina
Head of Department

Head of Department
Dept. of Educational Foundations &
Curriculum
A. B. U. Zaria

APPENDIX VB

**SECTION A
EVALUATION OF THE CURRICULUM IMPLEMENTATION OF EARLY
CHILDHOOD CARE DEVELOPMENT AND EDUCATION IN NORTH WEST
GEO-POLITICAL ZONE OF NIGERIA.**

**DEPARTMENT OF EDUCATION, FACULTY OF EDUCATION
AHMADU BELLO UNIVERSITY, ZARIA**

Dear Respondent,

This questionnaire is drawn in order to gather information from you on “Evaluation of the Curriculum Implementation of Early Childhood Care Development and Education in ECCDE Centres in North West Geo-Political Zone of Nigeria” (ECIECCDE). For the avoidance of doubt, it is designed for research purpose only with special focus on Kano and Katsina, hence, you should respond to it as honestly as you can.

In responding to each question, you are to tick the appropriate column. You are also to note that the abbreviations on the right hand side of Section B of the questionnaire stands for the following:

SA = strongly agree

A = agree

D = disagree

SD = strongly disagree

Please note that your responses to this will not only contribute to the success of the study, but also improve the implementation of early childhood care development and education in the two States and the nation in general.

Thanks for your support and cooperation.

Sa’adatu Sani Hanga

Researcher

SECTION B: Please tick () as appropriate

GENERAL INFORMATION REQUIRED

Name of School.....

SUBEB.....

Zone.....

LGEA.....

Rank/Responsibility.....

Sex: Male Female

Highest Educational Qualification Obtained:

a) Ph.D.

b) M.Ed. M.A M.Sc.

c) B.Ed. B.A Ed B.Sc.Ed

d) NCE

e) Others, specify _____

Year of working experience:

a) 0-5 years

b) 6-10 years

c) 10-15 years

d) 16-20 years

e) 21 years & above

**SECTION C: QUESTIONNAIRE
DESIGNED FOR SUPERVISORS (LGEAs/SUBEBS) AND UBEC
COORDINATING OFFICERS**

S/N	ECCDE Curriculum Contents	SA	A	D	SD
1.	Curriculum is comprehensive as it covers all the 3 domains that is effective, cognitive and psychomotor.				
2.	The National Minimum Standard for Early Child Care Centres in Nigeria have captured all the requirement for ECCDE programme.				
3.	Teacher/Pupils ratio is 20-30 per teacher in all the centres.				
4.	ECCDE programmes gives children the opportunity to master information and practice the skills that they need in order to function effectively in the society.				
5.	ECCDE should be child centred programme (focus on the child's interest only).				
6.	The Nigerian curriculum content of ECCDE prepare children for further education especially the primary education.				
7.	Teaching materials enhances teaching and learning.				
8.	ECCDE curriculum whether planned or unplanned is everything children do, see, hear and feel.				
9.	Hard working and cooperative staff make curriculum implementation a relatively easy task.				
10.	The NERDC, Curriculum Guidelines for ECCDE are easy and straight forward to implement.				

SECTION D:

DESIGNED FOR HEAD TEACHERS

S/N	ECCDE TEACHERS QUALIFICATION, TRAINING AND EXPERIENCE	SA	A	D	SD
11.	ECCDE teachers possess the qualification for teaching at ECCDE Centres.				
12.	ECCDE teachers received adequate in-service training by the State SUBEB and or the LGEAs.				
13.	Government recruits qualified teachers to teach at ECCDE Centres.				
14.	Qualified and experienced teachers are competent enough in all aspects of instruction.				
15.	ECCDE teachers possess adequate methods, skills, techniques and strategies.				
16.	Experienced teachers possess adequate methods, skills, techniques and strategies.				
17.	Teacher participation in decision making would enhance teaching and learning.				
18.	Quality education begins with the teacher who is acclaimed to be the determinant of quality education.				
19.	Availability of trained and qualified teachers is a major problem in ECCDE centers.				
20.	ECCDE Teachers attend Seminars and workshop.				

S/N	Monitoring and Supervision	SA	A	D	SD
21.	Monitoring and Supervision enhanced successful Curriculum Implementation.				
22.	Monitoring and supervision personnel are professionals and experienced.				
23.	Cordial relationship exists between the monitoring/supervision and personnel on one hand and the ECCDE staff on the other hand.				
24.	Management in ECCDE includes sensitization and mobilization of stakeholders to ensure collective participation in the IECD process.				
25.	Management is the process of organizing and controlling human and material resources.				
26.	Monitoring involves follow up action which can be done within by the appropriate personnel and outside by external bodies				
27.	Human resources, manpower, workforce, employees and workers are key ingredients for successful attainment of organizational goals and objectives				
28.	Effective management includes among the other things; fund, instructional materials, monitoring and evaluation and curriculum (availability, training and utilization) etc.				
29.	Through teamwork schools will be more effective when parents and local citizens are actively involved				
30.	No educational plan however excellent it may be, can be effectively implemented if the school supervision is ineffective				

SECTION E: DESIGNED FOR ECCDE TEACHERS

S/N	Environment of ECCDE Centres.	SA	A	D	SD
31.	ECCDE locations are acceptable to the community and they are within walking distance.				
32.	ECCDE environments are safe, secure, fenced and free from excessive noise				
33.	Play-grounds and classrooms are well ventilated with enough space.				
34.	ECCDE centres have enough age (4-6) toilets and access to potable(drinking) water				
35.	ECCDE classrooms have furniture: child-sized chair and tables.				
36.	ECCDE environment is provided with basic sanitation, safe nutritious food, potable water, adequate ventilation, and promote good health practices.				
37.	ECCDE environment stimulates the child to play, explore and discover.				
38.	The environment is attractive to the child; with variety of colors, texture, surfaces, visual dimensions and perspectives.				
39.	ECCDE classrooms provide children with space for storing their personal belongings.				
40.	Encourages children's regular attendance to the centre.				

S/N	Educational Resources	SA	A	D	SD
41.	There is a resource centre where teaching aids, audio-visual materials, posters, charts etc are stored.				
42.	Human Resources: there are qualified, trained and experienced teachers and trained caregivers.				
43.	Health Care: there is provision of First-Aid and a Nurse				
44.	Instructional Material: ECCDE Centres are provided with IECD policy, curriculum, caregiver, manual toys making, flash card, chalk and black board, radio, television etc.				
45.	Art materials: plants, clay, drawing materials (crayons, pencils), papers, wet sand, sewing equipment etc are provided.				
46.	Books: folktales, stories dictated by children and parents, storybooks, photo album, newspaper etc are provided.				
47.	Outdoor Materials: there is provision of climbing equipment wheel toys, sand/mud and water, Swings Natural Science (garden).				
48.	Materials to support mathematical learning: bottle tops, sea shells, balance scales, attributes blocks, colored beads, colors, etc are provided.				
49.	Materials to support language literacy: pictures books, story books, audio materials, etc are provided.				
50.	Table Games: playing cards, puzzles, lotto, board games etc are provided.				

S/N	Teaching Methods	SA	A	D	SD
51.	Discovery methods, provides the learner with necessary opportunities to discover new facts, techniques of solving problems				
52.	Field trip can be undertaken to places like a chemical industry, tourist centre, botanical garden, post office etc				
53.	Dramatization method involves correct greeting, dressing, singing and dancing therefore it should be taught practically				
54.	Play involves all of the child's senses; touching, feeling, hearing, seeing and sometimes counselling all of which stimulates development				
55.	Play is an important vehicle for children's social, emotional and cognitive development				
56.	For the attainment of a specific objective, method to be chosen must be appropriate to the topic				
57.	Child-centred is more effective at ECCDE level				
58.	Story telling arouses pupil's interest and make them sit attentive in the class				
59.	Play is quite time consuming				
50.	Field trip is difficult to plan and execute.				

APPENDIX VC

OBSERVATION CHECKLIST

To be filled by the Researcher and the research Assistant.

Material Resources for Effective Curriculum Implementation:

1. Environment/Location.

- a) Safe from physical hazard, pollution.
Free Likely Free Not Free
- b) Free from violence.
Free Likely Free Not Free
- c) Closer to school Community (working distance).
Closer Far Very far
- d) School building; ample space.
Standard Below standard Available
- e) Safe for play, work and rest.
Standard Below standard Not available
- f) Classroom: size, windows, roofing, light.
Standard/Qualify Below standard Not Qualified
- g) Game and sport field.
Standard/Available Below standard Not Available
- h) Provision of Garden Flowers.
Adequate/Available Available Not Available
- i) School resource centre
Standard/Available Below standard Not Available
- j) Enough toilet (clean & Safe)
Standard/Available Below standard Not Available

Educational or Instructional Materials:

i. Human Resources

- a) Qualified, trained experience teachers.
Adequate/Available Available Not Available
- b) Nursery Assistant or caregiver.
Adequate/Available Available Not Available
- c) Teacher/pupil ratio.
Adequate/Available Available Not Available
- d) Management and Supervision personnel.
Adequate/Available Available Not Available

ii. Instructional Materials:

- a) IECD Policy.
Adequate/Available Available Not Available
- b) Curriculum.
Standard/Available Not standard Not Available
- c) Chalk and blackboard
Standard/Adequate Below standard Not Available
- d) Teacher-Pupils ratio
Adequate/Available Available Not Available
- e) Television
Adequate/Available Available Not Available

3. Teaching Materials:

a) Mathematics learning materials

Adequate/Available Available Not Available

b) Language and literacy learning materials.

Adequate/Available Available Not Available

c) Materials activities outdoor play equipment.

Adequate/Available Available Not Available

d) Art materials

Adequate/Available Available Not Available

e) Manipulative

Adequate/Available Available Not Available

4. Health:

a) Provision of Safe water Source: Pipe borne water, Borehole or well water

Adequate/Available Available/inadequate

Not Available

b) Provision of toilets

Adequate/Available Available Not Available

c) Provision of hygiene materials: Dettol, detergent, towel and bowl or bucket

Adequate/Available Available/inadequate

Not Available

d) First aid box and its facilities: paracetamol, iodine, bandage, cotton wool etc.

Adequate/Available Available/inadequate Not Available

Food; in good nutrition from home/school: Balance diet, vitamins, protein carbohydrate

Adequate/Available Available Not Available

5. Classroom Environment:

- a) Seat arrangement provides traffic zone for easy movement, e.g. chairs/desks

Adequate/Available Available/inadequate

Not Available

- b) Provision of individual space for storing personal belongings

Adequate/Available Available/inadequate

Not Available

- c) Pictures are display at children's eye level.

Adequate/Available Available/inadequate

Not Available

- d) Containers to hold materials and tools.

Adequate/Available Available Not Available

- e) Storage place for items e.g. Box, cardboard or locker etc.

Adequate/Available Available/inadequate

Not Available

6. Furniture:

- a) Chair/table for pupils

Adequate/Available Available/inadequate

Not Available

- b) Seats: Appropriate for pupils age
 Standard/Available Not standard/inadequate
 Not Available
- c) Chair/table for teachers
 Adequate/Available Available/inadequate
 Not Available
- d) All furniture is steady and in good repair.
 Standard/Available Available/inadequate
 Not Available
- e) Mats stored for easy access
 Adequate/Available Available/inadequate
 Not Available

7. Classroom Corners:

- a) Different interest centres to provide a variety of learning.
 Standard/Adequate Available/inadequate
 Not Available
- b) Arrangement of seats is possible for staff to provides visual supervision
 Standard/Adequate Available/inadequate
 Not Available
- c) Sufficient space for several activities and traffic patterns do not interfere
 with activities.
 Standard/Adequate Available/inadequate Available

- d) Areas of quiet and active play are separate.
Standard/Adequate Available/inadequate
Not Available
- e) Set aside for one or two pupils to play
Standard/Adequate Available/inadequate
Not Available

8. Mathematics Materials:

- a) Counting Materials
Adequate/Available Available/inadequate
Not Available
- b) Colouring Materials
Adequate/Available Available/inadequate
Not Available
- c) Recognizing Shapes
Adequate/Available Available/inadequate
Not Available
- d) Written numbers
Adequate/Available Available/inadequate
Not Available
- e) Measuring Instrument
Adequate/Available Available/inadequate
Not Available

9. Safety Practice (Indoor):

a) Protective covers on electrical outlet.

Yes

No

b) Controls or knobs are not accessible to pupils reach.

Yes

No

c) Medicine or first aid boxes are out of reach of pupils.

Yes

No

d) Heavy or injured objects are placed away of child pupils reach.

Yes

No

e) Broken sits and damaged facilities kept out of reach of pupils.

Yes

No

**APPENDIX VD
POST-TEST**

STATE: _____

ZONE: _____

LGEA: _____

SCHOOL/CENTRE: _____

CLASS: _____

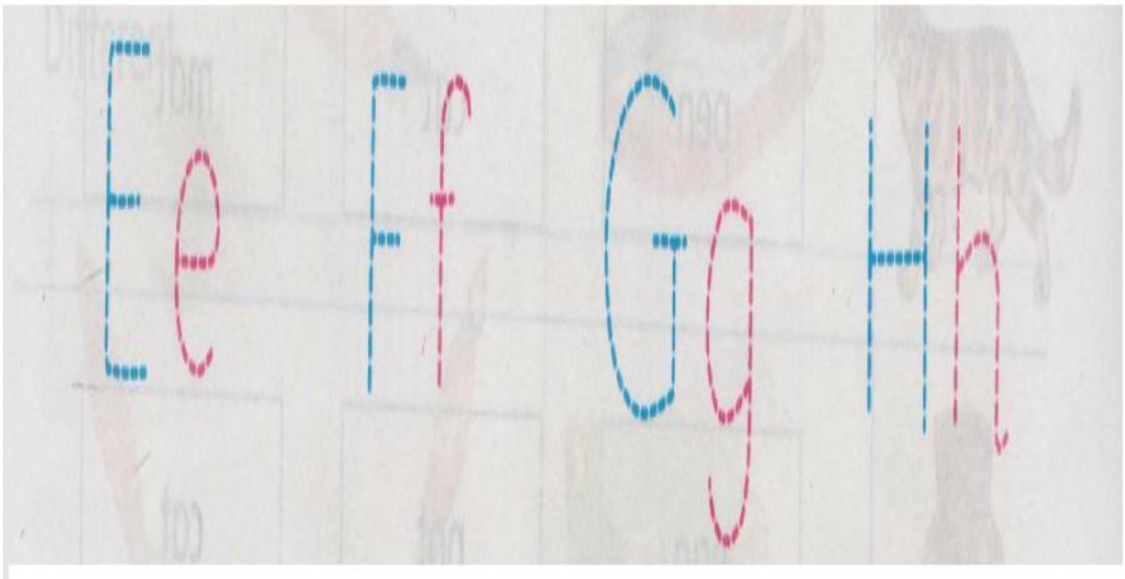
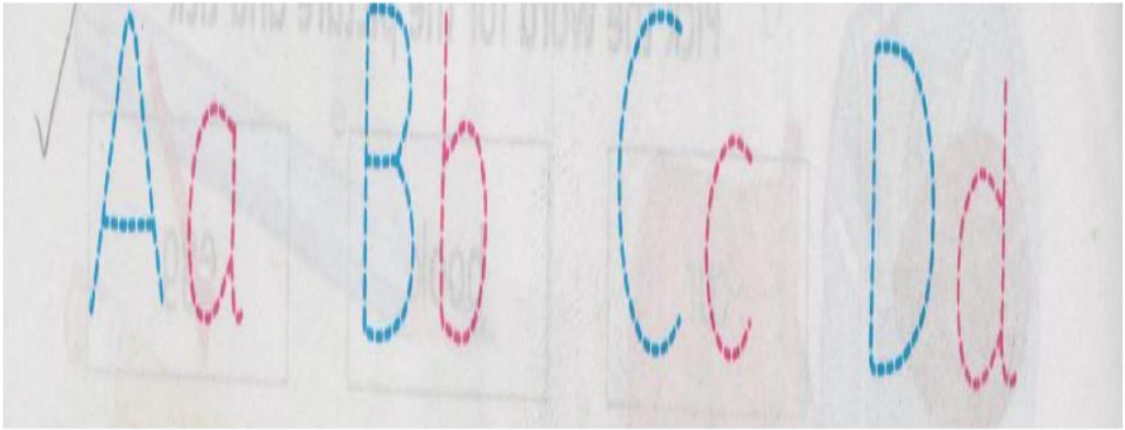
TIME – 1 HOUR (DOUBLE PERIOD)

NAME OF PUPIL: _____

GROUP: _____

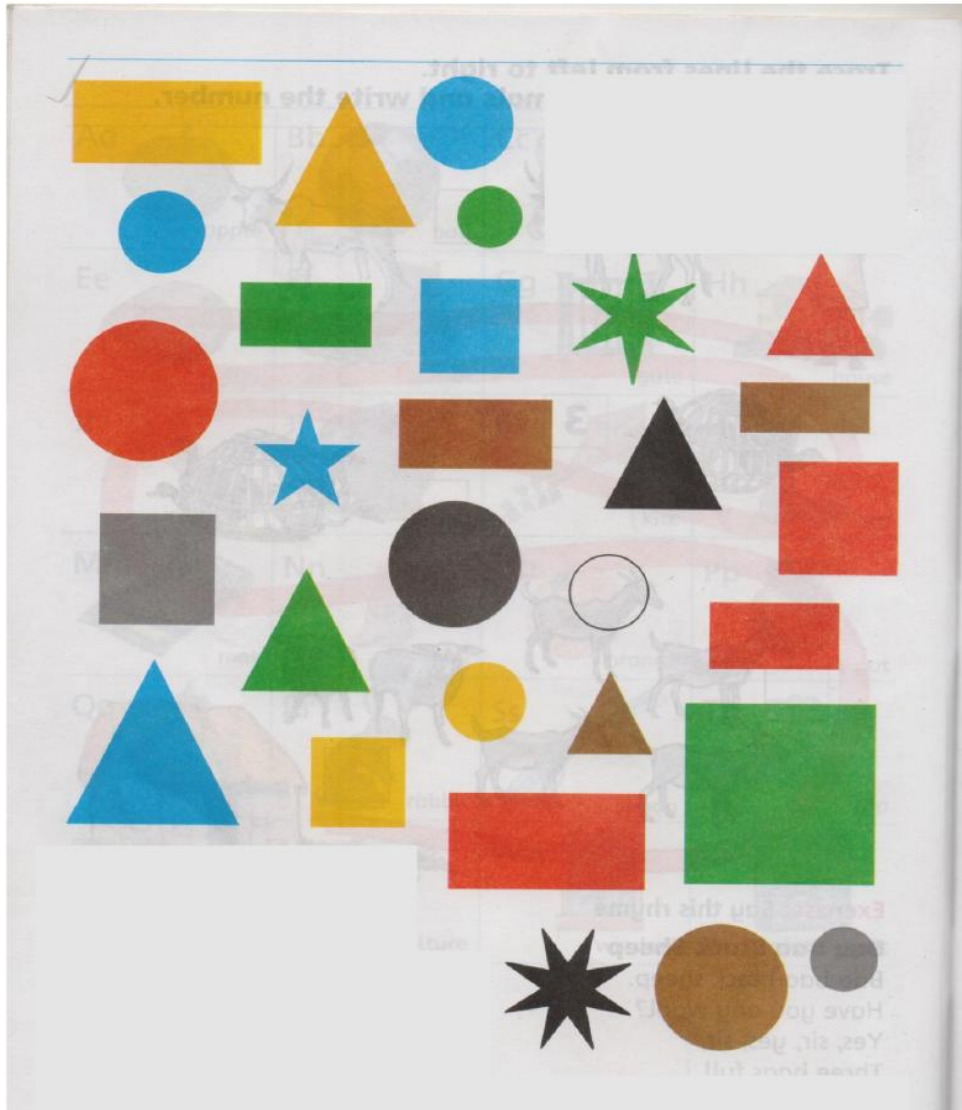
ALPHABETS

Trace The Alphabets



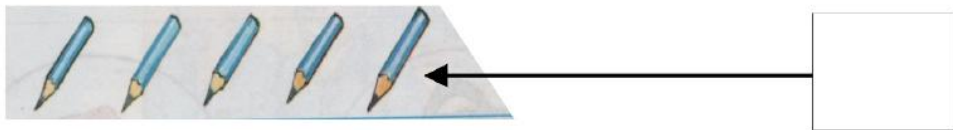
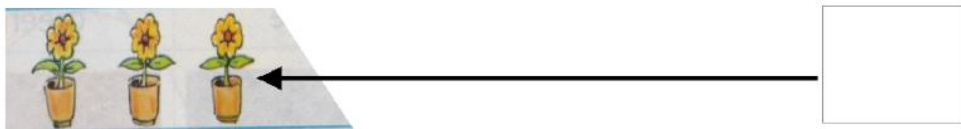
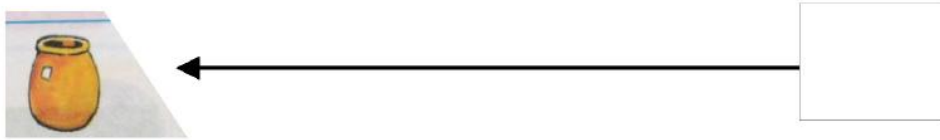
SHAPES

How many stars.....



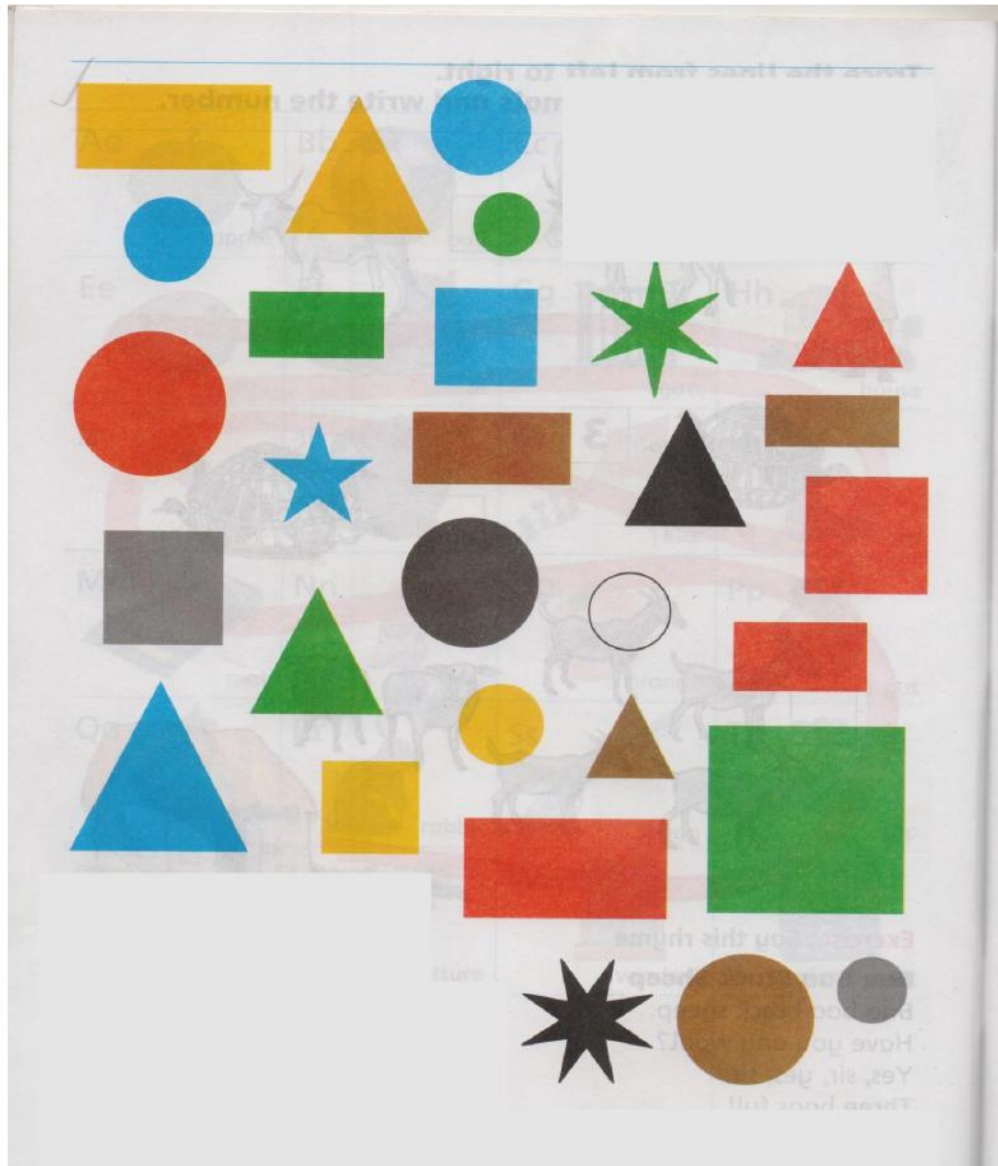
COUNTING NUMBER 1-10

Count and write the number of the object




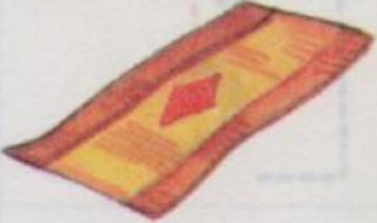



SHAPES

Circle all the red colour shapes

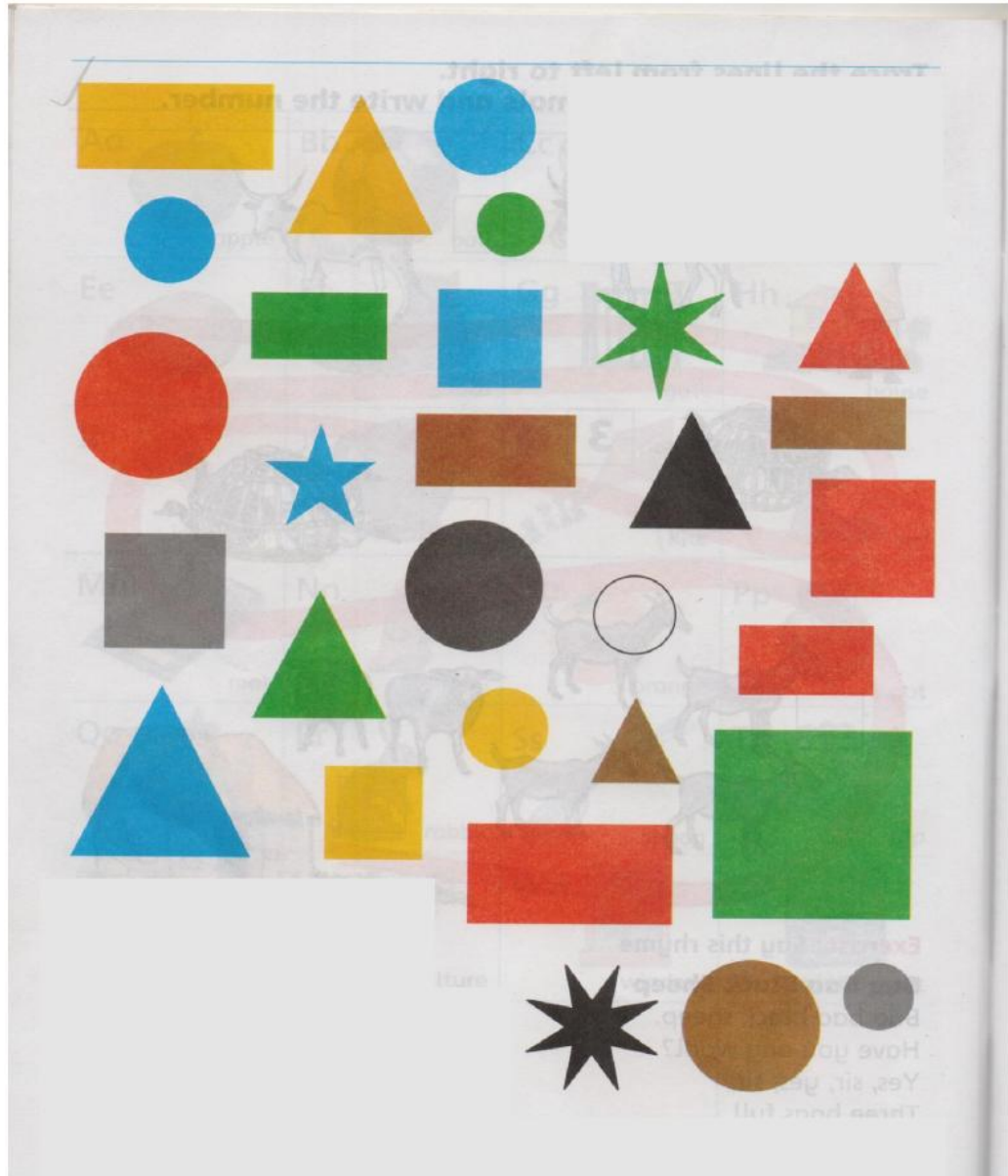


Match the word to the object

	Pot
	Egg
	Pen
	Cat
	Mat

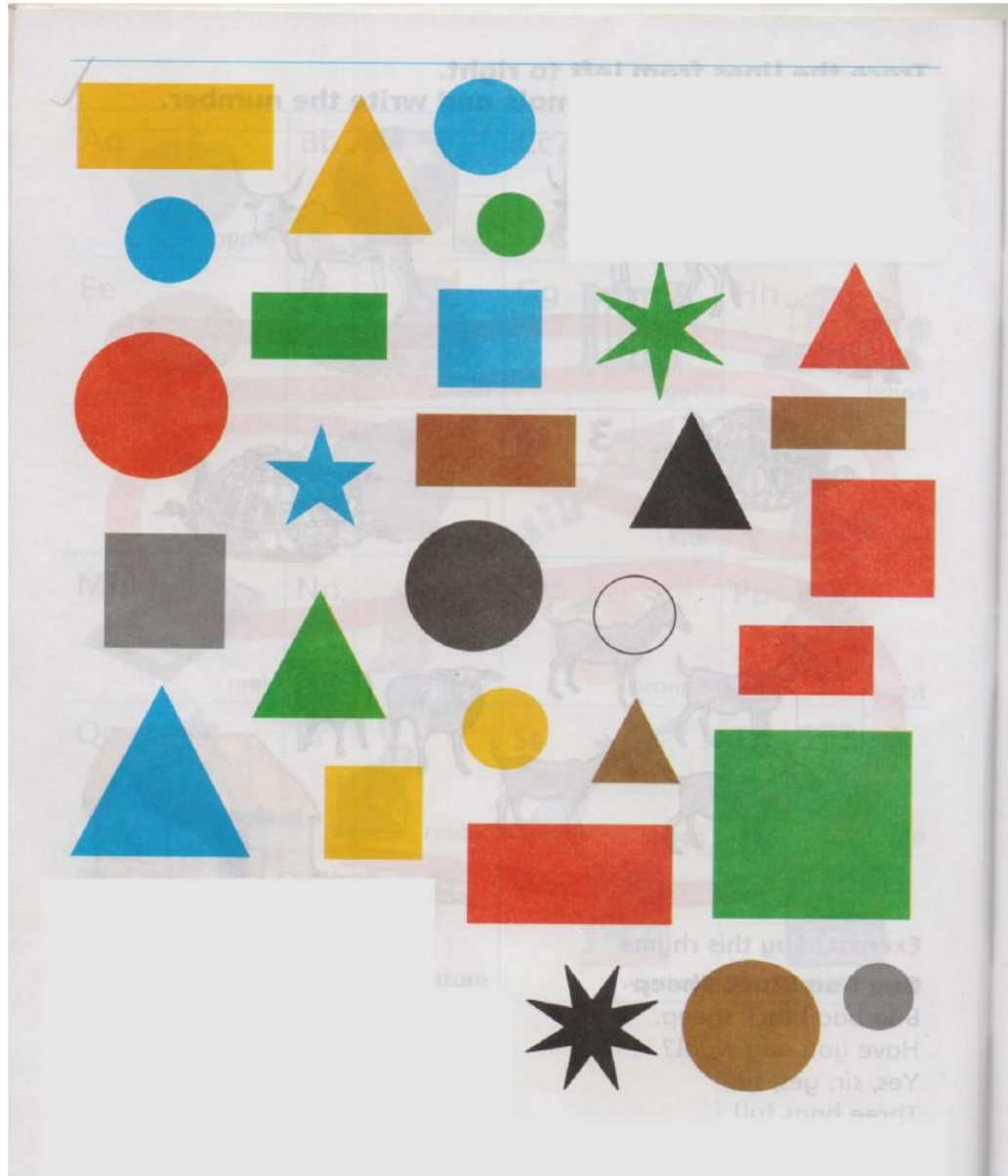
SHAPES

Circle all the squares

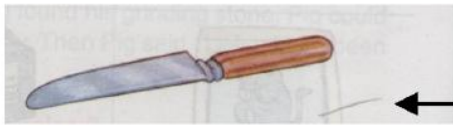


SHAPES

Circle all the Circles



OBJECT FOUND AT SCHOOL AND AT HOME



KNIFE



BAG



PEN



BROOM



BED



TABLE



Use the following letters to complete the three letter words

G, E, C



H.....N



DO.....



.....OW

Days of the Week

Write in the correct orders (re-arrange).

Sunday	Sunday
Tuesday	
Thursday	
Saturday	
Monday	
Wednesday	
Friday	

Matching Words and Parts of the Body

Part of the body



1. Head
2. Mouth
3. Leg
4. Hand
5. Eye

APPENDIX VIA

Scores for the Sampled Pupils Who Attended ECCDE Programme Based on Terminal Assessment Report Sheets from their Various Centres

S/NO	POSITION	TOTAL SCORE	$x - \bar{x}$	$(x - \bar{x})^2$	$\sum(x - \bar{x})^2$	$\frac{\sqrt{\sum(x - \bar{x})^2}}{n - 1}$
1	1ST	850	92.5	8556.25	176075	419.61
2	1ST	850	92.5	8556.25		
3	1ST	850	92.5	8556.25		
4	1ST	850	92.5	8556.25		
5	1ST	850	92.5	8556.25		
6	6 TH	845	87.5	7656.25		
7	6 TH	845	87.5	7656.25		
8	6 TH	845	87.5	7656.25		
9	6 TH	845	87.5	7656.25		
10	6 TH	845	87.5	7656.25		
11	38TH	715	-42.5	1806.25		
12	40TH	705	-52.5	2756.25		
13	41TH	700	-57.5	3306.25		
14	42TH	690	-67.5	4556.25		
15	43TH	680	-77.5	6006.25		
16	44TH	670	-87.5	7656.25		
17	45TH	660	-97.5	9506.25		
18	46TH	640	-117.5	13806.25		
19	47TH	625	-132.5	17556.25		
20	48TH	590	-167.5	28056.25		
	MEAN $1 = \bar{x}_1$	757.5				

APPENDIX VIB
Scores for the Sampled Pupils Who did not Attend ECCDE Programme Based on
Terminal Assessment Report Sheets from their Various Centres

	POSITION	TOTAL SCORE	$x - \bar{x}$	$(x - \bar{x})^2$	$\sum(x - \bar{x})^2$	$\sqrt{\sum(x - \bar{x})^2}$	$\frac{\sqrt{\sum(x - \bar{x})^2}}{n - 1}$
1	1ST	685	194	37636	611430	781.94	41.15
2	1ST	685	194	37636			
3	3 RD	680	189	35721			
4	4TH	675	184	33856			
5	5TH	655	164	26896			
6	6 TH	650	159	25281			
7	6 TH	650	159	25281			
8	8 TH	645	154	23716			
9	9 TH	635	144	20736			
10	9 TH	635	144	20736			
11	38 TH	395	-96	9216			
12	39 TH	390	-101	10201			
13	40 TH	385	-106	11236			
14	41TH	340	-151	22801			
15	41TH	340	-151	22801			
16	43TH	325	-166	27556			
17	43TH	325	-166	27556			
18	44 TH	305	-186	34596			
19	45 TH	215	-276	76176			
20	46 TH	205	-286	81796			
	MEAN \bar{x}_2	491					

n_1	20.00
n_2	20.00
\dot{x}_1	757.50
\dot{x}_2	491.00
SD_1	22.08
SD_2	41.15
SD_1^2	487.53
SD_2^2	1693.32

$$t = \frac{\dot{x}_1 - \dot{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

$$t = \frac{757.5 - 491}{\sqrt{\frac{487.53}{20} + \frac{1693.32}{20}}} \quad 266.5$$

$$t = 25.52 \quad \begin{array}{l} 24.3765 \\ 84.666 \\ 109.0425 \\ 10.44234 \\ 25.5211 \end{array} \quad 25.52109554$$

APPENDIX VIC

Post-Test Analysis

Group Statistics

GROUPS	N	Mean	Std. Deviation	Std. Error Mean
SCORES ECCDE	60	44.7000	4.53349	.58527
N ON -ECCDE	60	29.8000	8.19839	1.05841

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
	SCORE Equal variances assumed	16.312	.000	12.320	118	.000	14.90000	1.20945	12.50496

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
								95% Confidence Interval of the Difference		
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
SCORE	Equal variances assumed	16.312	.000	12.320	118	.000	14.90000	1.20945	12.50496	17.29504
S	Equal variances not assumed			12.320	91.997	.000	14.90000	1.20945	12.49793	17.30207

APPENDIX VII

Pictures taken during the Research at Various Centres in both the States



School building, ample space (safe for play, work and rest)



Teacher/Pupil Ratio (not available)



School Building (Standard)



Classroom Corner (Sufficient space for several activities and traffic patterns do not interfere with activities)



Chair/Table for pupils (not standard)



Pupils writing test



Pupils writing test