EFFECT OF PLAY AND PLAY MATERIALS ON THE SOCIAL DEVELOPMENT OF THE PRE-SCHOOL CHILDREN IN KADUNA METROPOLIS

BY

TABAT, JUMMAI GRACE
(M.ED/EDUC/00138/2006-07)

A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL IN PARTIAL FULFILLMENT FOR THE AWARD OF MASTERS DEGREE IN HOME ECONOMICS (FAMILY AND CHILD DEVELOPMENT)

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FACULTY OF EDUCATION
AHMADU BELLO UNIVERSITY
SAMARU, ZARIA

DECEMBER, 2009.

DECLARATION

I declare that the work in this Thesis titled 'EFFECT OF PLAY AND PLAY MATERIALS ON THE SOCIAL DEVELOPMENT OF THE PRE-SCHOOL CHILDREN IN KADUNA METROPOLIS' has been carried out by me in the Department of Vocational and Technical Education, under the supervision of Dr (Mrs) E. Ike and Dr (Mrs) E.E. Adamu. The information derived from the literature has been duly acknowledged in the text and a list of references provided. There is no part of this Thesis that was previously presented for another degree or diploma at any university.

TABAI JUMMAI GRACE	.....	08-12-2009
Name of student	Signature	Date

CERTIFICATION

This Thesis titled 'EFFECT OF PLAY AND PLAY MATERIALS ON THE SOCIAL DEVELOPMENT OF THE PRE-SCHOOL CHILDREN IN KADUNA METROPOLIS' written by TABAT, JUMMAI GRACE meets the regulations governing the award of degree of Masters in Education (M.ED) Home Economics (Family and Child Development) in Ahmadu Bello University Zaria, and is approved for its contribution to knowledge and literary presentation.

..... 8-12-09
Dr (Mrs) E. Ike Date
Chairman, Supervisory committee

..... 15/12/09
Dr (Mrs) E.E Adamu Date
Member, Supervisory committee

..... 5/12/09
Dr M.M. Aliyu Date
Head of Department

..... 20/9/2010
Professor S.A Nkom Date
Dean, Postgraduate School
Ahmadu Bello University, Zaria.

DEDICATION

This research work is dedicated to God Almighty, the Creator of heaven and earth and all that is in them and to my beloved son Master Z.A. Tabat (Late).

ACKNOWLEDGEMENT

My gratitude goes to God Almighty for His love, guidance, protection, and inspirations towards the successful completion of this course. My sincere appreciation goes to my able supervisor Dr (Mrs.) E. Ike, who devoted her time, making useful constructive criticisms, and suggestions; she also offered encouragement throughout the period of this work.

My special gratitude goes to my second supervisor, Dr (Mrs.) E.E. Adamu, who in no little measure contributed to the successful completion of this work. I also register my sincere acknowledgement for the academic and moral support of Dr (Mrs.) A.Z. Mohammed, Dr (Mrs.) T.O. Ojo, Dr (Mrs.) P.E Onuigbo, Dr (Mrs.) L.S. Ajayi, Mrs. M.F. Ahuwan, Dr D.O. Oni, Dr. S.W. Aluwong, Dr. M.M. Aliyu, and Dr.A.A. Udoh.

My special thanks go to Dr (Mrs.) A. Mohammed, and Professor F.D. Kolo for providing me with some useful materials to carry out this study, may the Almighty God bless them. I also want to register my sincere appreciation to all other lecturers of the Department of Vocational and Technical Education and Faculty of Education, who contributed in various ways to make this work a success. May the Almighty God bless them.

I am most grateful to Mr. I.D. Akau the Provost, Management staff, Academic staff, the Head and the entire staff Departrnent of Home Economics, Kaduna State

College of Education Gidan Waya, for the support, encouragement and opportunity given to me to carry out this study. I say thank you all.

I also thank the Kaduna State Private Schools Board for providing me with the necessary information used for the conduct of this study; the administrators, and teachers of I.V.Y International school and Methodist Church nursery and primary school for allowing me the use of their pupils as my subjects. I am also indebted to the beloved pre-school children I used. God bless you all.

Finally, my appreciation goes to my beloved family members; my darling husband Mr. K.Y. Tabat, my handsome children: Masters Aaron Y. Tabat, and Bob Manuel Tabat, and to my mother in-law for their tireless patience, endurance, love, and prayers during my frequent absence from home. I sincerely want to register my appreciation to Mrs S.M. Aboyi (mother), my brothers and brothers in-law, my sisters and sisters in-law, my friends and class mates, Hajiya Maimuna I. Aminu, Mrs. C.J. Okosun, Mrs. H.A. Achi, Mrs. K.Y.Ahmed, Mrs. M.J. Masara, and Mrs. R. Yahaya, for their prayers, love and encouragement during my period of study. May the Almighty God reward all of you abundantly.

ABSTRACT

The purpose of this study was to investigate the effects of play and play materials on the social development of the preschool children in Kaduna Metropolis. Four objectives with four research questions were stated and three Null hypotheses were raised. Among the objectives were to identify the different kinds of play and play materials available among preschool children in Kaduna Metropolis, and to determine the effects of using and not using free play and play materials on the social development of the preschool children in Kaduna Metropolis. Experimental research design was adopted for the study. The population for the study was drawn from Kaduna Metropolis. The population for the study was eight thousand nine hundred and eight (8,908) preschool children in the sixty four (64) registered pre-schools in Kaduna metropolis. The sample size used for the study was two (2) registered preschools which comprised of sixty (60) preschool children in the Kaduna Metropolis. The researcher used observation method for data collection. A score card consisting often social development indices with five social expressions for each index was used for the observation. Null hypotheses were formulated and tested using Paired Sample t-test Statistics at 0.05 level of significance. The result showed significant difference in the effect of social development of preschool children who used free play and those who did not; also, there was significant difference in the effect of social development of preschool children who had access to play materials and those who did not. Based on the results, some recommendations were given. Among them were: the Government should supervise and monitor these schools (preschools) to see that they are of high social standard with all the necessary facilities. Safe, adequate and appropriate play materials and facilities should be provided for the preschool children by the proprietors of these schools so as to enhance their rapid positive social development. Parents and teachers should limit the amount of restrictions imposed on children during play. They should give children enough time to play and try not to use it as reward for doing a particular activity. They should not force the children to play if they do not want to. It is not play anymore if they are forced; it is more like a chore. It was concluded that play and play materials have positive effect on the social development of preschool children.

TABLE OF CONTENT

Title page	i
Declaration	ii
Certification	iii
Dedication	iv
Acknowledgement	v
Abstract	vii
Table of content	viii
List of tables	xii
Abbreviation	xii
Operational Definition of Terms	xiv
CHAPTER ONE	
INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of the problem	4
1.3 Objectives of the study	6
1.4 Research Questions	6
1.5 Research Hypotheses	7
1.6 Significance of the Study	7
1.7 Basic Assumptions	8
1.8 Delimitation	9
CHAPTER TWO	
REVIEW OF RELATED LITERATURE	10
2.1 Concept of Play and Play Materials	10

2.2 Types of plays 15
2.2.1 Exploratory or Discovery play 16
2.2.2 Imaginative, Dramatic, or Pretend play 18
2.2.3 Creative play 20
2.2.4 Physical play 21
2.2.5 Social play 21
2.3 Types and Selection of Play Materials for Children 22
2.3.1 Social and Fantasy play materials 22
2.3.2 Exploratory and mastery play materials 23
2.3.3 Art, Music, and Movement play materials 24
2.3.4 Gross motor play materials 25
2.4 Advantages of Play and Play Materials 30
2.5 Disadvantages of lack of Play and Play Materials 34
2.6 Safety Guide and Maintenance of Play Materials 35
2.7 History of Children in Contact with Nature 37
2.8 Ways of Encouraging Children's Play 39
2.9 Developmental Effects of Play and Play Materials on the Pre-School Child 41
2.9.1 Social development of the pre-school child 41
2.9.2 Social relationship with adults 45
2.9.3 Social relationship with other children 46
2.9.4 Common forms of social development 46
2.10 Empirical Studies 52
2.11 Summary 57

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY 59

3.1 The Research Design 59

3.2 Population for the Study 60

3.3 Sample Size and Sampling Procedure 61

3.4 Instrument for Data Collection 62

3.4.1 Validation of the Instrument 64

3.4.2 Pilot Study 65

3.4.3 Reliability of the Instrument 66

3.5 Procedure for the Data Collection 66

3.6 Procedure for Data Analysis 67

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS 68

4.1 Analysis of Pre-School Children's Play 68

4.2 Analysis of Pre-School Children's Play Materials 69

4.3 Analysis of the Social Development Indices for the Experimental and Control Groups of Pre-School Children in Kaduna Metropolis 69

4.4 Testing of Null Hypotheses 75

4.5 Discussion of findings 78

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION 85

5.1 Summary 85

5.2 Conclusion 87

5.3 Recommendations 88

5.4 Limitation of the Study 92

5.5 Educational Implications 92
5.6 Suggestions for further Study 93
References 94
Appendices 104

LIST OF TABLES

Table 3.1 Populations of nursery schools and nursery school Children in Kaduna Metropolis 60

Table 3.2 Sample Size of nursery schools and nursery school Children in Kaduna Metropolis 61

Table 3.3 Social Development indices and expressions for Pre-school children. 63

Table 3.4 Pilot Study Result 65

Table 4.1 Distribution of Pre-school Children on Positive Social Development Indices for Experimental Group 71

Table 4.2 Distribution of pre-school children on Positive social Development indices for control group 72

Table 4.3 Distribution of Pre-school Children on Negative Social Development Indices for Experimental Group 72

Table 4.4 Distribution of Pre-school Children on Negative Social Development Indices for Control Group 73

Table 4.5: Distribution of Pre-school children according to Type of Free Play Engaged in for Experimental Group 74

Table 4.6: Distribution of Pre-school children according to Type of Restricted Play Engaged in for Control Group 74

Table 4.7 Paired t-test Social Development Indices (Experimental and Control) 75

Table 4.8 Paired t-test Free Play (Experimental and Control) 76

Table 4.9 Paired t-test Play Materials (Experimental and Control) 77

LIST OF ABBREVIATIONS

ACEI	Alliance for Childhood Education International
NGO	Non Governmental Organization
SPSS	Statistical Package for Social Sciences

OPERATIONAL DEFINITION OF TERMS

Art, Music and Movement Play Materials: These are play materials which aid in the development of artistic expression, arts, and crafts.

Creative Play: This is where a child expresses his/her own ideas and feelings in making something which is original; for example , a picture, an animal in modeling dough, a house in building blocks and so on.

Exploration and mastery play materials: These are play materials that increase children's knowledge about the physical world, encouraging them devise ways to enrich their comprehensions of how things work.

Gross motor play materials: These are play materials which help in fostering large muscles development and skills. These include play ground and gymnasium equipment, push-and pull-toys, and sports equipment.

Imaginative or dramatic play: Is a kind of play in which children pretend to be other people or animals as they take part in make-believe events.

Pattern: A series of actions or events that together show how things normally happen or are done, e.g. pattern of development.

Physical play: Also known as play with movement. This take place when

the child is actively moving a round: running, jumping, climbing, balancing, throwing a ball and so on.

Play: It is a universal activity carried out by all healthy children; it is fun and self motivating.

Play materials: Are the objects or items that stimulate play.

Pre-school child: A child that is between the ages of three (3) and five (5) years old.

Social and fantasy play materials: These are items that encourage the use of imagination and mental representation of objects and events, as well as a deeper understanding of people and the rules we live by. Examples of these play materials include bricks, dolls and soft toys, toys for bath time (water, floating objects, and containers for scooping up water) pictures and drawing book, ball, etc.

Social play: This takes place when children play together which teaches them to co-operate, to share, and to be honest.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Children are growing up in a rapidly changing world characterized by dramatic shifts in what all children are expected to know and be able to do. Consequently, children have less time and opportunities to play than did children of past generations (Isenberg and Quisenberry, 2002). In addition to this fact, most parents today have ignored the business of play but put on television for their children to sit down and watch endless cartoons and films, many of which are neither educative nor do the children understand them (Ike, 2007). These demands and shift in values encroach heavily on the time the child has for himself/herself. One of the most important things a child does is play. The Webster's Dictionary (1997) ascribed play thus "to engage in a game, to take recreation, and amusement."

Kraus (1990), Syvenky (1996) and Hildebrand (1997) all defined play as "any activity that individuals choose to do". It is fun and self motivating. Dacey and Travers (2002) also viewed play as an activity that children engage in because they enjoy it for its own sake. Play provides a way for children to learn at their own pace and it is generally regarded as something done for enjoyment or pleasure to unwind or relax. Play is a dynamic process that develops and changes, as it becomes increasingly more varied and complex. It is considered a key facilitator for learning

and development across domains and reflects the social and cultural contexts in which children live (Isenberg and Quisenberry, 2002). As the business of early childhood, play also helps children to increase concentration and attention and gives kids chance to socialize, express emotion and practice motor skills (Ike, 2007).

For a child to be successful and skillful in his/her play activity there must be enough and suitable play materials for the child to play with. Play materials are those items or objects that stimulate play. Early exposure to appropriate play activities and materials is important and provides a sound basis for development (Isenberg and Jalongo, 2000; Frost, Wortham and Reifel, 2001; Hughes *in* Isenberg and Quisenberry, 2002). When children play with a broad variety of materials, the experiences acquired help them to develop to their fullest potential. Play and play materials are essential to pre-school children, because they contribute to cognitive, physical, social and emotional well-being of children.

There is no specific age in terms of years and months defined when the pre-school stage begins. Instead, the pre-school stage begins when the child begins to show a great deal of independence, initiatives, and imaginations. These years are the time of much intellectual development. For most children, the pre-school years include the period from three through five or six years of age (Wehlage, 1989). Huxley (1996) also viewed pre-school children in the following ways: the pre-school children are a whirlwind of activity and they are active explorers of the world

around them. The author also described them in terms of their cognition as "little explorers". They are seeking to understand how the world operates and functions. They begin to learn how to interact with peers and they are those children that need frequent approval and reassurance from primary care givers.

Similarly, a Guide to The Business of Baby Sitting (2007) looked at the pre-school child as that child who is between the ages of three and five years old. Pre-school children often want to touch, taste, smell, hear, and test things for themselves, and are eager to learn. They learn by experiencing, by doing and from their play. Pre-schoolers are more independent than toddlers and can express their needs since they have greater command of language. The pre-school years, therefore, require adequate provision of suitable and appropriate play and play materials so as to lay the foundation for social development of the pre-school child.

Social development on the other hand has been identified as the acquisition of the ability to behave in accordance with social expectations of a particular group of people or individuals (Kaduson and Schaefer, 2000). It is the process by which an individual, born with potentialities of enormously wide range, is led to develop actual behaviour which is confined within a much narrower range which is customary and acceptable for him according to the standards of his group (Association for Childhood Education International-ACEI, 2002). For a child to become socialized it involves three processes which, though separated and distinct,

are closely interrelated and failure in any of them will lower the person's level of socialization (Alliance for childhood, 2002). These processes include, the development of behaviour approved by the social group, playing of approved social roles - the patterns of customary behaviour defined and expected by members of the social group, and development of social attitudes so that the person likes people and social activities.

1.2 Statement of the Problem

This study was initially crystallized through experience by the researcher. It was observed that, some years back parents allowed children to play on their own and with different natural materials such as clay, sand, corn stalks and others so as to produce some play materials (toys). Nowadays, the story has changed, on further investigation; the researcher observed that today's parents have programmed their children's play time and what to play with. These trends are affecting the pre-school children who have had free play reduced in their schedules.

Policies and practices at home and in school have driven open-ended, self-directed play out of children's lives. As such, children no longer have the freedom to explore woods and fields and find their own special place. Added to these are the hours spent sitting still in front of television screen, video games and computer, listening to other people's stories and imagination, thereby further causing a steady decline in children's play (Pellegrini and Bohn, 2005). However, Moore and Wong,

(1997); White and Stoecklin, (1998) and Clements (2004) all identified crime and safety concern, due to 'stranger danger', fears of ultraviolet rays, insect borne diseases and various forms of pollutions as some of the primary reasons why parents do not allow pre-school children to play outdoors.

Increasingly, pre-school and kindergarten children find themselves in school-setting which feature scripted teaching, computerized learning and standardized assessment with little or no time for them to carryout exercises (Elkind, 1989). Still, new schools are built without play grounds, while allegedly; these approaches are providing 'quality education, they trivialize and undermine children's natural capacities for meaningful and focused life lessons through creative play, and this leaves many children profoundly alienated from their school experiences (Alliance for childhood, 2002 and Almon, 2002). Dillon (2006) and National PTA (2006) pointed out some of the problems these children suffered which include stress, emotional and mental breakdown and other conditions that used to be considered as adult diseases and conditions.

Also, regimented play activities can have negative consequences on the social development pattern of a child because they are too organized and take away a child's initiative and freedom of choice. In contrast, free play encourages the creative and multi-sensory development of a child because it has structure (Pellegrini and Bohn, 2005 and National Literacy Trust, 2007). In the light of the

above facts, the researcher carried out the study to identify the effect of play and play materials on the social development of the pre-school children. Virtually from all the write ups that were read and experiences so far gathered, it has come to full knowledge that most parents, teachers and even the society were ignorant of the significance of play and play materials on the social development of the pre-school children.

1.3 Objectives of the Study

The main objective of the study is to establish the effect of play and play materials on the social development of pre-school children in Kaduna Metropolis. Specific objectives of the study are to:

1. identify the different kinds of play and play materials available among pre-school children in Kaduna Metropolis.
2. determine the effect of using and not using free play and play materials on the social development of the pre-school children in Kaduna Metropolis.
3. determine the effect of free play and lack of free play on the social development of the pre-school children in Kaduna Metropolis.
4. determine the effect of play materials and lack of play materials on the social development of pre-school children in Kaduna Metropolis.

1.4 Research Questions

This study attempted to provide answers to the following research questions:

1. What are the different kinds of play and play materials available among pre-school children in Kaduna Metropolis?
2. What are the effects of using and not using free play and play materials on the social development of the pre-school children in Kaduna Metropolis?
3. What are the effects of free play and lack of free play on the social development of the pre-school children in Kaduna Metropolis?
4. What are the effects of play materials and lack of play materials on the social development of pre-school children in Kaduna Metropolis?

1.5 Research Hypotheses

This study was carried out to test the following null hypotheses.

1. There is no significant difference in the effects of using and not using free play and play materials on the social development of the pre-school children in Kaduna Metropolis.
2. There is no significant difference in the effects of free play and lack of free play on the social development of the pre-school children in Kaduna Metropolis.
3. There is no significant difference in the effect of play materials and lack of play materials on the social development of pre-school children in Kaduna Metropolis.

1.6 Significance of the Study

This study will be significant in the following ways:

It will alert and enlighten the Federal, State and Local Governments on the importance of selecting and approving suitable sites with enough play grounds and

play facilities for the setting up of pre-schools for children. It will also help educators and administrators in planning suitable play time and providing play materials for the different age levels of children so as to enhance their proper social development. The result of this study will also help school inspectors to ascertain the different types of play materials used in instructing little ones so as to help in building good citizens.

The findings of the study will help teachers and parents in selecting suitable and appropriate play materials for their children. It will equally enable them to create awareness on the effects of play and play materials on the social development of the pre-school children, thereby not choosing a particular type of play for a child, but rather allowing the child to choose for himself/herself. The study will be a major useful contribution to knowledge and literature on the effect of play and play materials on the social development of pre-school children in Kaduna Metropolis.

1.7 Basic Assumptions of the Study

The researcher assumed that the baseline of the problems of most pre-school children's inability to effectively develop socially is as a result of their inability to play freely and with variety of play materials. Parents and teachers are ignorant of the benefits of play and play materials on the social development of preschool children. However, other assumptions of the study included the following:

1. The pre-school children will experience an effective social development when suitable or appropriate play materials and free play time are given to them.

2. Each pre-school child will like to be given free time to play with both natural and commercial play materials
3. When play facilities are made available by parents and proprietors of pre-schools, the children's social development will be enhanced.

1.8 Delimitation of the Study

This study was delimited to pre-school children between three to five years of age in the Kaduna Metropolis. This is because most of the Nursery Schools were located in the Metropolis, and majority of these play materials were found there. The study was also delimited to social development of these children. Five different types of play namely: exploratory or discovery play, imaginative or dramatic play, creative play, physical play and social play were considered in this study mainly because plays by pre-school children are centered on them. Personal observation method consisting of ten (10) social development indices (5 positive and 5 negative) each having five (5) social expressions were used as data collecting instrument in this study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter is on review of the literature on concept of play, types of play and play materials suitable for pre-school children and some research studies on effect of play and play materials on the development of pre-school children. The review covered the following sub-headings:

2.1 Concept of Play and Play materials
2.2 Types of Plays
2.3 Types and Selection of Play Materials for Children
2.4 The advantages of Play and Play Materials
2.5 Disadvantages of lack of free play on the children
2.6 Safety Guide and Maintenance of Play Materials
2.7 History of Children in Contact with Nature
2.8 Ways of Encouraging Children Play
2.9 Developmental effects of Play and Play Materials on the Pre-School Child.
2.10 Empirical Studies
2.11 Summary

2.1 Concept of Play and Play Materials

Hurlock (1981) defined play as a universal activity for all healthy children. Play is a form of recreation that has great educational value. Play is generally regarded as something done for enjoyment or pleasure, to unwind or relax. It is perceived as something "trivial or fruitless" (Kraus, 1990). Bronson (1995) noted

that play may be one of the most profound expressions of human nature and one of the greatest innate resources for learning and invention. Santrock (1996) also viewed play as a pleasurable activity that is engaged in for its own sake. Hildebrand (1997) observed play as any activity that individual chooses to do and it can be fun and self motivated; it may involve body movement, problem solving and creativity.

Rowlands (1997) on the other hand, assessed play as "to engage in a game, to take recreation, amusement, fun or jest". During play, a child often strives to use new physical and mental abilities. Play is voluntary; to play, the activity must be freely chosen by the child in which the child is actively engaged in the process. Play has certain systematic relationships to other aspects of development: cognition, language, knowledge about the world, perceptual and motor development, social and emotional development. Play is determined as play by the players, that is, the player may begin, end or alter the activity in progress without consulting anyone but the other players. Play is fun, or at least pleasurable (Kostelnik, Stein, Whiren and Sodernman, 1998).

Play is the essential joy of childhood and it is also the way children learn about themselves, their environment and people around them. As they play, they learn to solve problems, get along with other people and control their bodies as they enrich their creativity and develop leadership skills (The Toy Manufacturers of America, 2000). Association for Childhood Education International (ACEI, 2002)

on the other hand believes that play is a dynamic, active and constructive behaviour; it is an essential and integral part of all children's healthy growth, development, and learning across all ages, domains, and cultures. It is a dynamic process that develops and changes as it becomes increasingly more varied and complex (Fromberg, 1998; Hughes, 1999; 2002; Christie, 2001). Barnardos (2002) also ascribed play as any activity engaged in for the enjoyment it gives without the consideration of the end result. He added that it is an activity in which one enters into voluntarily and it is lacking in external force.

Dacey and Travers (2002) ascribed play as an activity that children engage in because they enjoy it for its own sake. It also allows children to explore their environment on their own terms and to learn any meaningful experiences at their own rate and at their own level. Papalia, Olds and Feldman (2004) opined that play is the business of early childhood, while Hornby (2004) also viewed play as "to do things for pleasure, as children do; to enjoy yourself, rather than work". Play is essentially an unproductive activity in which the process is more important than the end. It is, therefore, relaxing and recreating throughout children's lives and even in adult's lives. Play is the business of children or young ones and they learn from it to organize their perceptions, test out their experiences, manage their feelings, discover themselves and the world around them, project their self images, assert their ego, lead others and be led and understand others around them (Ononuju, 2004). Play

denotes happy state of mind and body and so children should be allowed to play in order to stop them from being moody. Happy children are noisy as they shuttle, hustle, jump, climb, kick, drive, or chase themselves up and down the house or playground.

Theorists, regardless of their orientation, agree that play occupies a central role in children's life. For instance, Piaget (1980) and Hurlocks (1981) suggested that the absence of play is an obstacle to the development of healthy and creative individuals. Psychoanalysts believed that play is necessary for mastering emotional traumas or disturbances; while psycho socialists believed it is necessary for ego mastery and learning to live with everyday experiences. On the other hand, constructivists believed it is necessary for cognitive growth; while maturationists believed it is necessary for competence building and for socializing functions in all cultures of the world. In addition, neuroscientists believe it is necessary for emotional and physical health, motivation and love of learning (Hughes, 1999; Fromberg, 2002).

Children need early exposure to both visual and auditory stimuli (Murata and Maeda, *in* Isenberg and Quisenbery, 2002). Young children are interested in colours, sizes, shapes and sounds and enjoy working with table toys that encourage matching, ordering, and comparing. Playing with such materials stimulates vocabulary and concept building. Young children play with these materials by

grouping them according to size, colour, form and texture. They can recognize things that do not belong to a group (Moyer, 1995; Frost, *in* Isenberg and Quisenbery, 2002).

On the other hand, play materials are those equipment or objects that stimulate children's senses and motor skills; they are open ended materials which enable them learn how to become their own persons (Gutierrez and Bos, 2007). Play materials are expected to be "90% child and 10% toy." This means that it should not be a material or object that manipulates the child; instead the child should be able to manipulate the toy.

Play materials are in broad categories and encompass games, puzzles, balls, and other sports equipment, dolls, and action figures, play sets, creative and artistic materials, collectibles, miniatures of all kinds and a wide variety of other items (Microsoft Encarta, 2008). When children play with a broad variety of toys (play materials), the experiences help them to develop to their fullest potential. Play materials can also be described as those objects or toys that enable children to exercise their imagination in preparation for school and other social settings. They also encourage creativity and skill building, such as colouring books, construction sets and modeling clay.

Play materials for age 2-6 years are grouped into gender specific categories. For instance, toy kitchens make up, house wears and dolls reinforce

traditional female roles and are often used in role playing. Traditional favourites among little boys are toy trucks and cars, miniature construction equipments and blocks and building sets. Toy weapons - such as cap guns, space guns and cow boy guns - have also long been popular with boys (Gutierrez and Bos, 2007; Microsoft Encarta, 2008). Still other toys designed for early childhood can easily cross gender lines. Crayons and paints, modeling clay, board games and plush toys are equally desirable to both boys and girls. Sports toys once considered strictly for boys are now widely popular with both sexes following the rapid growth of girls' in athletics.

2.2 Types of Play

Dacey and Travers (2002) pointed out that children like varieties as a result of which they always change from one type of play to another. Sometimes children use the same toy to play with, but more often they change from one toy to another which stimulates different types of play. They use their imagination and out try various adult roles. Hence, Hildebrand (1997), Kostelnik, *et.al* (1998) and Minett (2000) identified the following as types of children's play:

i. Exploratory or discovery play
ii. Imaginative, dramatic, or pretend play
iii. Creative play
iv. Physical play
v. Social play

2.2.1 Exploratory play

Rivkin (1990) stated that children engaging in exploratory behaviour are scanning the environment, scrutinizing, feeding, smelling, mouthing, shaking, hefting and moving, operating, probing or otherwise investigating the nature of the object at hand. Hildebrand (1997) added that exploratory play enables children to discover how things work, so also curious children like to examine and handle many different objects. They may take a new toy and squeeze it, smell it, shake it, put part of it in their mouth, and pound on it. They discover that a musical toy makes a pleasant sound when they pull a string or press and put back together such as construction toys with parts that snap together offers satisfaction as well as instruction.

Hildebrand (1997) and White and Stoecklin (1998) discovered that some of the most important learning takes place when children appear to be playing aimlessly. At such times, they may be placing assorted objects on top of each other, trying to push a stool between the legs of a chair, or examining a shadow on the floor. Yet these activities are opportunities for children to explore their surroundings and in addition to using toys in play, they also need safe environment in which to experiment. While Pyle (2002) agreed with the above discoveries, the author also affirmed that naturalized play ground help children reclaim the magic that is their birth right - the ability to play and learn door out through exploration, discovery and

the power of their imaginations in intimate contact with nature. These naturalized play environments do not depend on manufactured equipment rather than being built, they are planted - they use the landscape and its vegetation and materials as both the play setting and the play materials. They are designed to stimulate natural curiosity, imagination, wonder and discovery learning by children and to nurture children connectiveness with nature.

White and Stoecklin (1998) therefore, outlined the following as some of the basic components of a naturalized play environment that stimulates exploration in children:

- Water
- Plenty indigenous vegetation, including trees, bushes, flowers and long grasses that children can explore and interact with.
- Animals, creatures in ponds, butterflies, bugs.
- Sand mixed with water
- Diversity of colour, texture and materials
- Ways to experience the changing seasons, wind, light, sounds and weather
- Natural places to sit in, on, under, lean against, climb and provide shelter and shade.
- Different levels and nooks and crannies, places that offer socialization, privacy and views.
- Structures, equipment and materials that can be changed, actually or in their imaginations, including plentiful loose parts.

Children use a variety of toys, materials and other objects in their play and the novelty of an object attracts attention and stimulates exploration. However, the complexity of an object is more important in sustaining interest (Weilbacher, 1981). On the whole, attractive toys lure children into exploration and independent

behaviour or engender a sense of security because of familiarity (Sutlon-Smith, 1986).

2.2.2 Imaginative or dramatic play

This is also known as imaginative, dramatic, pretend, and representational or fantasy play. Dramatic play is imaginative, unrehearsed play in which children pretend to be other people or animals as they take part in make-believe events. Piaget called this symbolic play (Hildebrand, 1997). Brown, Sutterby and Thornton (2007) asserted that dramatic play is an imitation of reality whereby children create play "themes" and they are able to imitate the physical world and human relationships through symbolic representation.

Landreth (1991) defined dramatic play as the process by which children assume an identity in role enactment, relating to other persons or objects as if they are other than themselves, or altering time and space in the form of situational transformation. Burdette (2005) affirmed that in pretend or fantasy play, the child imagines that she/he is some one else or an animal such as a rabbit or dog. They also imitate the ways of adults and attempt to behave like someone else. Children might pretend that a log is a boat or that they are Batman and Robin fighting all the bad guys (Frost, 2006). All these imitations will help children to understand more clearly the ways other people behave.

Paley, (1988) noted that in representational or dramatic play; preschoolers

use speech and body language to become storytellers of pretend events. In essence, it is "play for understanding" for older children. Fantasy play is their ever dependable pathway to knowledge and certainty (Paley, 1988). Through dramatic play, children continue to have bold understanding of their world, just like toddlers and young infants do through exploratory play. Smilansky and Sherfatya (1990); Brown, *et al* (2007) provided six criteria of a typical dramatic play. The first four are behaviours in which young children may engage in alone, and the last two involve social dynamics in the play. These are:

- Imitative role-play: the child performs a make believe role and acts it out through imitative bodily action and/or speech
- Make-believe with regard to objects: play behaviours and/or speech dialogues and/or materials or toys that are not replicas of the object itself and substituted for real objects.
- Verbal make-believe with regard to actions and situations: verbal dialogue takes the place of body movements.
- Persistence in role-play: the pretend play episode lasts at least 10 minutes.
- Interaction: More than one person participates in pretend play episode.
- Verbal communication: verbal dialogue is exchanged between the players.

Ellis (1983), Landreth (1991), Fisher (1992), Stambak and Sinclair (1993) observed that engaging in dramatic play can have beneficial effects on children's learning, peer relationships, and emotional well-being. Stambak and Sinclair (1993) further stated that dramatic play allows children the opportunity to use toys and say things they cannot verbalize, to do things they would otherwise feel uncomfortable doing, and to express feelings and emotions they might be reprimanded for

expressing in their contexts.

2.2.3 Creative play

According to Hildebrand (1997), creative play is when a child expresses his/her own ideas and feelings to make something which is original for example, a picture, an animal in modeling dough, a house in building blocks and so on while Hildebrand (1997) and Krafft and Berk (1998) defined creativity as the ability to produce something original and unique. It is closely related to imagination. To create, children use their imagination to make or invent new objects, ideas or processes. Wilson (2000) and Minett (2000) were of the opinion that in creative activities the process, not the product, is important. For example, children out try creative ideas by drawing, painting, or modeling things important to them.

Creativity is often associated with artistic expression, music, art, drama, and dance but children in their artistic expression may not represent any object that an adult would recognize. As such, adults should avoid asking questions as "is that the cow?" (Wilson, 2000). Children need to feel free to explore to put things together, and to try using different materials. Children should be provided with building materials for their creative plays so they should have simple materials made from wood, boards, hollow blocks, cartons, large spoons, strings, old tyres, ropes, and pebbles, pieces of cloth, to play with and create new things from their imaginations (National Literacy Trust, 2007).

2.2.4 Physical play

Physical play, also referred to as play with movement, takes place when the child is actively moving around - running, jumping, climbing, crawling, balancing, swinging, throwing a ball, and others (Seefeldt and Haubenstricker, 1982; Watson, 1995). Kostelnik, *et al.*, (1998) also explained that children play for the sheer exuberance of it which enables them exercise their bodies and improve motor skills and such uninhibited behaviour permits children to relieve tension and help them to master anxiety. Some children love to climb, climbing structures should be provided to them for climbing experiences but these should not be so high to constitute danger when children fall off them. Swings ropes, and sliding equipment may be erected for children plays but these must be properly fixed to avoid accident in homes, schools or play ground. Most physical games are composed of these skills combinations that improve strength, endurance balance, and coordination (Minett, 2000).

2.2.5 Social play

McCune and Zanes (2001) established that social play takes place when children play together which teaches them to co-operate, to share, and to be honest. It also teaches them that antisocial behaviour, like cheating, leads to isolation and loss of friendship. With social play, children often quarrel and in doing so learn about each other's reactions. Play contribute greatly to children's social

development, for example, young children learn new ways of dealing with peers and other people during play, and this makes life more satisfying.

Wehlage, (1989) and Hildebrand (1997) acknowledged that between the ages of two and three, children begin to look forward to having another child around when they play, and at this age, they play side-by-side (parallel play) that is, by doing things together. In this kind of play, children make plans, talk things over, and pretend they are people they know from story books, television, or the neighborhood. This type of play help children practice the social skills of sharing, taking turns and develops feelings of concern and respect for each other. Friendship becomes more important, children are less self-centered, and learn how people differ in their physical looks, personalities, habits and life- styles at this stage (Isenberg and Quisenbery, 2002)

2.3 Types and Selection of play Materials for Children

Dacey and Travers (2002) grouped play materials into four categories:

- Social and fantasy play materials
- Exploratory and mastery play materials
- Art, music and movement play materials
- Gross motor play materials

2.3.1 Social and fantasy play materials.

Malley (2002) noted that this category of play materials include items that

encourage the use of imagination and the mental representation of objects and events, as well as a deeper understanding of people and the rules we live by. Play materials in this category are often used in dramatic play, solitary fantasy play, and role-play. Children enjoy dramatic play with other children; they sometimes have imaginary friends, enjoy pretending to be important adults (mother, father, doctor, nurse, police officer, and mail carrier etc). Social and fantasy play materials include bricks, dolls and soft toys, toys for bath time (water, floating objects, and containers for scooping up water), picture and drawing books, drawing and painting materials, ball, card games, computer games, sewing kits and books which they are able to read (Minett, 2000; Malley, 2002)

2.3.2 Exploration and mastery play materials

This category of play materials increase children's knowledge about the physical world, encouraging them to devise ways to enrich their comprehension of "how things work" That is, it helps the children to find out about things: what they are like- their size, shape, texture, colour; how they are made; and what they can do with them (Kytta, 2004). The children may also discover that they can be broken, and this helps teach them to take care of their possessions. Children do not only need toys to be engaged in play but, also need a safe environment in which to experiment. The exploratory play materials include, puzzle, pattern-making, games, sand, water and string encourage children's search for knowledge (Gutierrez and

Bos, 2007).

2.3.3 Art, music and movement play materials

These aid in the development of artistic expression and include arts, crafts, and instrument. Pre-school children appreciate toys for imaginative play- drawing and painting materials, coloured paper to make patterns, dressing-ups clothes. They also enjoy being active outdoor with toys like balls, climbing frames, tricycles, jigsaws, and card games (Christie, 2001).

Children enjoy music in many ways even when they are very young. For instance, from birth babies seem to be comforted when parents sing to them in a soothing and rhythmical way. From a very young age they show an interest in objects which make pleasing sound, for example a musical mobile and when they are little older, they want to join in songs, or to clap their hands to music (Isenberg and Quisenbery, 2002). Music and movement help children to develop movement skills, listen and -respond with actions, extend their range of movements, improve posture and balance, keep fit and use their imagination when they mime to music. Young children enjoy producing sounds with percussion instruments such as the home-made: bells, tambourines, cymbals, triangles, maracas and drums (Rivkin, 1990 and Malone, 2004).

2.3.4 Gross motor play materials

These also help in fostering large muscles development and skills, and would include play ground and gymnasium (gym) equipment, push-and-pull toys, and sports equipment (Bronson, 1995). Ononuju (2004) identified especially sand and water as some of the few play materials children need for their large muscles development and skills which further elaborated that every child loves the sand and manipulate and use it in several ways. Children can dig in it, pile it up, sieve it in between their palms and fingers, build with it, and mould it, tunnel through it plus various other ways in which they can use sand. It is necessary to provide sand boxes for children at their play area or sand-dunes at the play centres if they have one (Moore, 2004; Malone, 2004). As for water, children love to drink it, play with it, splash it all over the places, collect them with open containers and let them run, open up taps and allow them to flow and form streams and lakes, spray them on each other and laugh over it. All children love water but they should be protected as they can get badly exposed if they keep in water all the time. It can also get them drowned, so parent should not allow children to play with plenty of water at a time in deep containers (Burdette and Whitaker, 2005).

Children play materials have the distinction of being one of the most closely monitored and regulated products on the market. However, parents need to remember that each child is unique and develops at his or her own pace. Therefore,

as a sure guide to purchasing play materials for children adults need to know the maturity, skill level and interests of their children. Also, careful reading of the age label on the product and use of common sense should guide the adult buyer because nobody knows your child better than you do (Kostelnik *et al*, 1998; The Toy Manufacturers of America, 2000 and Ononuju, 2004).

Minett (2000) advised that since play materials come in many forms, only those which give pleasure should be used as they will give children the opportunity to learn. Also, play materials sold as 'educational toys' will only be played with if the child finds them either funny or interesting. Therefore, a successful play material for play is one which a child both likes and uses often. The Toy Manufacturer of America (2000) and National Network for Child Care (2004) both gave the following as characteristics of suitable play materials:

- They should be safe for use by children - for example, ensure that the eyes of soft toys are firmly fixed and cannot be pulled out; there are no sharp edges or points; toy cars and tricycles should be stable and should not easily tip over.
- They should be durable
- They should be appropriate to the age of the child - the child should be old enough to enjoy it, but not too old for the toy to seem babyish.
- Ability to meet the purpose they are meant for
- Ability to capture the child's interest
- They should be fun from the child's point of view
- They should be able to stimulate creative activity - scope for imagination and scope for learning new skills
- They should involve interaction with others
- They should be such that could be kept clean

The Toy Manufacturers of America (2000) reiterated that parents need to

study their children so as to know their interests, abilities and limitations because not all children enjoy the same kinds of play: one child may be interested in building with blocks or doing puzzles, another may prefer riding bikes or playing ball; your child may enjoy pretending with a doll house or playing board games (Gutierrez and Bos 2007). Parents and teachers are to try matching toys to their children and keep in mind that each child's interest in a toy will often carry through more than one age group. Although all children are different, the following are some suggestions variously given when choosing suitable toys for children of different age groups:

a. Babies birth to one year

Experts agreed that even babies need an assortment of toys. Since infants respond to smell, taste, sound, touch and sight, properly selected toys provide a small baby with opportunities to learn about size, shape, sound, texture and how things work (Schweinhard and Weidart, 2000).

For this age group, it is advisable to choose toys that have pieces that are too large to swallow; are lightweight for handling and grasping; have no sharp edges or points; are brightly coloured, and are non-toxic. Ketlert (2000) explained that the brightly coloured, light weight toys of various textures stimulate a baby's senses while for young infants, toys to look at and listen to are best. Such toys as rattles, squeak toys and crib gyms are ideal for grasping when the baby is ready to hold objects while soft dolls or stuffed animals made of non-toxic materials are fun to

touch and hug but are not designed for sucking and chewing (Olsen and Sumsion, 2000). Parents and teachers are to ensure the seams cannot be easily torn or bitten open and that eyes and nose are securely fastened. However, for a baby who is sitting up is already for blocks with pictures or bright colours and nesting cups or boxes and stocking rings are also favourites. Babies at this age enjoy their first study picture books showing familiar objects, also balls and push-pull toys are good choices when a baby can crawl and walk (Papalia, *et al.* 2004).

b. Toddlers: one to three years (1-3 years)

Olsen and Sumsion (2000) confirmed that a busy toddler needs toy for active physical play especially things to ride and climb on, such as a low tricycle or a wagon to ride in and pull while out door toys such as large balls, inflatable toys, a wading pool and a sand box with digging tools are all good choices. Barnardos (2000) and Christie, (2001) concurred that toddlers begin to enjoy make believe play just before their second birthdays. To imitate the adult world around them, they use play food, appliances and utensils, child-sized play furniture, simple dress-up clothes and dolls. Children in this age group are particularly interested in sorting and fitting toys, all kinds of blocks and simple puzzles and at sometimes enjoy musical instruments such as tambourines, toy pianos, horns and drums, as well as listening to tapes (Pyle, 2002; McVeigh and Duchan, 2003).

c. Pre-schoolers: three to five years

The Toy Manufacturers of America (2000) and Marcon, (2002) explained that pre-schoolers are masters of make-believe. They like to act out grown-up roles and create imaginary situations and costumes and equipment that help them in their pretend world are important at this stage. Some of their many possibilities include pretend money, play food, a toy cash register or telephone, a make believe village, fort, circus, farm, gas station or restaurant, a puppet theater and play with dolls and furniture. In a child's private world, a favourite play material is both a companion and protector. Dolls and teddy bears, for example, have helped countless children to cope with difficult moments. Children will sometimes express their feelings to toy "confidants:" and share emotions with them that they may otherwise keep to themselves (Olsen and Sumsion, 2000).

Krafft and Berk (1998) confirmed that transportation is fascinating to young children. Trucks, cars, planes, trains, boats, and tractors are all fun at this age and beyond while larger out-door play materials, including gym equipment, wheeled vehicles and a first two-wheeled bicycle with helmet and training wheels, are appropriate now. Minett (2000) further explained that children of this age group appreciate toys for imaginative play-drawing and painting materials, coloured paper to make patterns, and dressing up clothes, books, colouring sets, crayons, puzzles, stuffed toys and dolls continue to be favourites.

2.4 The advantages of Play and Play Materials

Play is the most important activity of young children because it is during play that children are at their most competence (Vygotsky, 1998). As such, there is no wasteful play in children because the benefits of play in children are enormous. Frost (1998), Shonkoff and Phillips (2000), Tamis-Le-Monday, Shannon, Cabrena and Lamb (2004) pointed out that play allows children to use their creativity while developing their imagination, dexterity, and physical, cognitive and emotional strength. They asserted that play is important for healthy brain development and that it is through play that children at a very early age engage and interact in the world around them.

Play is the work of the young and it contributes to all domains of development and through play children stimulate the sense, learn how to use their muscles, coordinate sight with movement, gain mastery over bodies and acquire new skills. Shonkoff and Phillips (2000) added that play allows children to create and explore a world they can master, conquering their fears while practicing adult roles, sometimes in conjunction with other children or adult caregivers. Tsao (2002) and Hurwitz (2003) also noted that as children master their world through play, it helps them develop new competencies that lead to enhanced confidence and the resiliency they will need to face future challenges.

Further more, Erickson (1985) and Band (1988) deduced that undirected

play allows children to learn how to work in groups, to share, to negotiate, to resolve conflicts, and to learn self advocacy skills. When play is allowed to be child driven, children practice decision making skills, move at their own pace, discover their own areas of interest, and ultimately engage fully in the passions they wish to pursue (Erickson, 1985; Pellegrine, 1998; Hurwitz, 2003). Also, when parents observe their children in play or join them in child-driven play, they are given a unique opportunity to see the world from their child's vantage point as the child navigates a world perfectly created just to fit his or her needs (Cohn, 1990). Ideally, much of play involves adults, but when adults control play, children acquiesce to adult rules and concerns and loss of the benefits play offers them, particularly in developing creativity, leadership, and group skills. In contrast to passive entertainment, play builds active, healthy bodies. MacDonald (1993), Burdette and Whitaker (2005), American Academy of Pediatrics, (2006) suggested that encouraging unstructured play may be an exceptional way to increase physical activity levels in children, which is one important strategy in the resolution of the obesity epidemic.

Parents who have the opportunity to glimpse into their children's world learn to communicate more effectively with their children and are given another sitting to offer gentle, nurturing guidance. The interactions that occur through play tell children that parents are fully paying attention to them and help to build enduring relationship (Cohn, 1990; Henry, 1990; and Smith, 1995). Less verbal

children may be able to express their views, experiences, and even frustrations through play, allowing their parents an opportunity to gain a fuller understanding of their perspective. Quite simply, play offers parents a wonderful opportunity to engage fully with their children. Shonkoff (2000) discovered that children's developmental trajectory is mediated by appropriate, effective relationships with loving and consistent caregivers as they relate to children through play.

Raver and Zigler (1997) and Wentzel, (1999) agreed that play is integral to the academic environment. It ensures that the school setting attends to the social and emotional development of children as well as their cognitive development. It has been shown to help children adjust to the school setting and even to enhance children's learning readiness, learning behaviours, and problem solving skills (Coolahan, Fantuzzo, Mendez, and McDermott, 2000; McWayne, Fantuzzo, and McDermott, 2004).

Ladd (1990) and Isenberg and Quisenberry (2002) confirmed that social-emotional learning is best integrated with academic learning; it is worrisome if some of the forces that enhance children's ability to learn are elevated at the expense of others. Play and unscheduled time that allow for peer interactions are important components of social-emotional learning (Zins, 2004). Play is a dynamic process that develops and changes as it becomes increasingly more varied and complex. It is considered a key facilitator for learning and development across domain and reflects

the social and cultural contexts in which children live (Fantuzzo, Sekino and Cohen 2004). As the business of early childhood, play also help children increase concentration and attention and give kids chance to socialize express emotion and practice motor skills (Ike, 2007).

Kraus (1990) stated that play is important to children as it provides them with an opportunity to "express their bottled up opinion". According to his theory, play is a cathartic experience; it allows children the opportunity to express negative emotions which are otherwise unacceptable in their lives. For example, a five-year old child whose mother has just had another child is likely to experience negative feelings such as resentment and hostility toward his or her sibling. Play allows a child in this situation to vent his feelings and frustrations, rather than internalizing his emotions or becoming abusive toward his new sibling (Zins, 2004).

Play can give children a feeling of empowerment in a world that caters for adults. It also allows them a means of expressing strong, negative emotive. According to Freud (1981) play allows children to feel in control of a situation. For example, the child with the new sibling is probably not allowed to hurt the baby, however, he can hit, throw or kick his doll and this allows him to feel in control. Freud (1981) maintains that children need to feel they have some control since that helps them to deal with reality (Kraus, 1990). Play is an extremely important element in the lives of children since it helps them develop and foster life skills,

creativity, imagination and a positive self-image. Although children's play may appear to be fun, silly and a waste of time to an adult, it is of immense value to them. It helps in determining what kind of adult they will become (Rowlands, 1997).

2.5 Disadvantages of Lack of Free Play on Children

Play is a significant activity in the life of every child. Play develops learning in children and any child deprived of play is a misfit in society and group. Lack of play among children turns the child into a lazy, antisocial, unimaginative, and uncreative (Ike, 2007). He or She can not fine out about himself or herself and the world, can not discover, experiment, create, concentrate, express ideas, develop speech, develop muscles, and learn how other people behave, share possessions, cooperate with others, and act protectively towards someone less powerful than him/her.

Play helps toward happiness. A child who is not absorbed in play is likely to be unhappy child, as lack of play produces feelings of dissatisfaction, lack of achievement, and boredom (Wentzel, 1999). Preventing a child from being bored is very important; boredom can quickly lead to bad temper, irritability, and destructiveness. Avoidance of play by the children promotes stress, while play can help reduce stress (Almon, 2002). The acting out of stressful situations can help them seem more familiar and therefore, less frightening. For example, by playing 'school' a child becomes familiar with the idea of going to school, and this will help

to reduce any nervousness about school which the child might have.

The absence of play is generally a sign of illness in children. Parents, for instance, will often describe the severity of child's illness in terms of whether or not the child continued to play. "He had chicken pox" a parent might report, "but it was not too serious because he was playing the whole time" This instinctive wisdom of parents that links play and health was confirm by Brown, a psychiatrist who worked with very ill children, some of whom did not recover (Ohanian, 2002).

2.6 Safety Guide and Maintenance of Play Materials

Careful manufacturing methods and selections of play materials are not enough but they must be used, maintained and stored correctly to ensure that the safety built in at the factory continues in the home. Parents and others responsible for a child's care must be safety experts and it should be borne in mind that youngsters learn safe play habits and responsibility from grown ups. As a safety guide, parents and teachers need to read instructions carefully and always remove and immediately discard all packaging from a play material before giving it to a baby or small child (McVeigh and Duchan, 2003).

Connolly and Doyle (1994); Winsler and Diaz(1995) deduced that an infant's environment should be made as hazard free as possible and gyms and mobiles must be removed once the infant reaches five months of age or begins to push up on hands and knees. Cribs toys such as stuffed animals rattle and bead should never be hung or

attached to a crib, play-pen or carriage with any sort of string or ribbon no matter how harmless one may think they are (Barnardos, 2000). This is because there is possibility of the cord getting attached to a button or strap of clothing or wrapped around hands, feet or neck. Proper selection of play materials and supervision of play are not the only steps that parents can take to ensure safe and fun play time. Since play materials are among the first things a child considers his or her own, adults should encourage a youngster to assume responsibility by demonstrating how to use and care for them (National Literacy Trust, 2007).

In ensuring play materials safety and maintenance, adult need to spot check play materials regularly for minor damage and urge children to let them know when they need repair. A child does not always see significance in a small crack or tear if the toy is still in one piece. Often a spot of glue, a tightened bolt, a few drops of oil or a bit of tape will prevent further damage and a possible accident. A play material damaged beyond repair should be discarded or replaced promptly (The Toy Manufacturers of America, 2000; Marcon, 2002)

The Toy Manufacturers of America (2000) suggested that children need to be taught how to store their play materials properly and they need to be taught that putting play materials where they belong after each play may not only prevent them from being lost, stolen or damaged, but may also prevent younger brothers and sisters from injuring themselves on play materials intended for older children. The

encouragement given by an adult will help to foster a sense of responsibility and teach that care must be given to valued belongings. It is important to note that play material intended for an older child may be unsuitable and possibly dangerous in the hands of a younger child. Hence McVeigh, *et al.* (2003) advised that adults need to be especially careful when selecting play materials for children under the age of three. The play materials with small parts that could be swallowed or inhaled, including small balls and uninflected balloons, and those with sharp parts or rough edges should be avoided.

2.7 History of Children in Contact with Nature

Modem human beings *(homo sapiens)* evolved and have lived in intimate contact with nature in the savannahs and forests for almost their entire 120,000+ years. The cultivation of plants and the domestication of animals allowed our ancestors to dwell in permanent settlements to expand their population more rapidly, thus, beginning a long, sad divorce from nature (Chawla, 1994). (It was not until recently that most people lived in cities and not until very recently children still grew up with intimate contact with nature). Most of history revealed that whenever children were free to play, their first choice was often to run to the nearest wild place whether it was big tree or bushy area in the yard or a water course or woodland nearby (Pyle, 2002). Manning (2004) stated that two hundred years ago, most children spent their days surrounded by field, farms or in the wild nature at its

edges but by the late twentieth century; many environments available to children had become urbanized.

White and Stoecklin (1998) and Moore (2004) noted that as recently as 1970, children had access to nature and the world at large. At the same time, children had the freedom to play, explore and interact with the natural world with little or no restriction or supervision. However, Kytta (2004) pointed out that the lives of children today are much different because they have few opportunities for outdoor free play and regular contact with the natural world. Their physical boundaries have shrunk due to a number of factors. Clements (2004) stated that 82% of mothers with children between the ages of 3 and 12 years identified crime and safety concern as one of the primary reasons why they do not allow their children to play outdoors. Due to 'stranger danger', many children are no longer free to roam their neighborhoods or even their own yards unless accompanied by adults.

Moore and Wong, (1997); White and Stoecklin, (1998)) added that fears of ultraviolet rays, insect borne diseases and various forms of pollutions also led adults to keep their children indoors. Furthermore children's lives have become structured and scheduled by adults who hold the mistaken belief that this sport or that lesson will make their young children more successful as adults (Wilson, 2000). Also, Brooks (2004) noted that a childhood of unsupervised loitering, wandering and exploring has been replaced by a childhood of adult supervised and scheduled

improvements. The culture of childhood that played outside is gone and children's everyday life has shifted to the indoors (Hart, 1999; Moore, 2004). As a result, children's opportunity for direct and spontaneous contact with nature is a vanishing experience of childhood (Rivkin, 1990; Kellert, 2002; Kuo, 2003; Malone, 2004).

2.8 Ways of Encouraging Children's Play

Play may be the most benefiting educational activity a child will ever participate in. As such children need to be encouraged in their plays. It is worth noting that through play children develop their social skills, develop their thinking abilities, and learn how to deal with various emotions, improve their physical abilities and find out about themselves and what they are capable of. It is virtually impossible for a child to play without learning something. When children become bored with how they are playing, they just change how they play and the learning continues (Syvenky, 1996). The primary purpose of encouraging young children from infancy through pre-school age to play is to instill in them a desire to learn all through play. Learning that is fun will have a much greater impact on children than learning forced through rewards or strict guidelines. There is an age when children are too young to learn certain skills and concepts; but there is no age where they are too young to play (Syvenky, 1996; Rowland, 1997).

Syvenky (1996), The Toy Manufacturers of America (2000) and General (2001) both identified the following as some of the ways in which parents can

encourage their children's play:

- Know your child - watch him/her to find out what he/she likes to do, what he/she always asks questions about and what areas of his/her growth you feel he/she needs more experience in. Find play ideas that focus in on those areas. For example, if he loves tractors, find books and puzzles that talk about tractors.

- Give children enough time to play. Try not to use it as reward for eating all their vegetables or cleaning up their room or staying out of your way. Their playtime should be the biggest and most important part of their daily lives. Their play is similar to you and your daily work. Both need to be done each day because that is how important they each are to each age group.

- Do not force the children to play if they do not want to. It is not play anymore if they are forced; it is more like a chore.

- Limit the amount of rules the children must follow during play. The more rules, the less the children feel they are playing and the more they feel they are doing what someone else is telling them to do; which is not really playing to them. Limiting the rules can be done very easily by making the play ideas simple and safe. So few rules are really needed (Rowland, 1997).

- Give them a safe area to play in and safe play materials. It should not cost much to provide great play ideas for your children. You can create many of these play ideas with things from home.

- Give your children many different ways of playing. There are many play areas that you can involve your children in such as stories and looking at books, arts and crafts, music and singing, sand, play-dough, and water play, imaginary play, learning games and out door play. The greater the variety of ways your child plays, the easier it is to learn.

- Watch your children when they are playing for clues about when to get involved. Infants need time to play on their own. They can also get bored and when they do, you can step in and either play with them or give them new ways of playing.

2.9 Developmental Effect of Play and Play Materials on the Pre-School Child

Hildebrand (1997) defined development as an increasing skill in physical, emotional, social or cognitive abilities. Kostelnik, *et al.* (1998) also ascribed development as an increase in complexity (becoming more complicated). The Author added that, growth and development go hand in hand and it is often difficult to separate one from the other. Marcon (2002) pointed out that all threads of development interweave and exist simultaneously. Hence no one aspect of development occurs independently of the others. For instance, children's ability to make friends obviously relates to the social domain. However, friendship skills are affected by other developmental processes too and with this interactive model in mind, it can be seen that children play for various reasons, such as the followings:

2.9.1 Social development of the pre-school child

Wehlage (1989) defined social development as getting along with others and accepting new responsibilities. Hildebrand (1997) also ascribed social development as a child's growing ability to relate to other people while Tsao (2002) viewed it as the process of learning the skills and attitudes which enables individuals to live easily with other members of their community. As children mature socially, they move from a self-centered attitude to behaviour, which recognizes other people's feelings.

Hildebrand (1997) noted that social development follows similar patterns

all over the world, although social customs vary in different countries and even between different groups in the same country. In other words, variation in social development can be seen in eating habits, standard of hygiene, forms of greeting, attitudes to dress, religion and morals. According to Minett (2000), children are not born with knowledge of these social skills but they have to learn them. The family is the baby's first social group where babies learn how to respond and relate to people by interacting with their parents, sibling and other relatives. They face light up when they see a person's face and they smile and laugh with others, and they may cry when left alone. Tsao (2002) also concurred that children should be trained in social skills, that is, skills which make a child's behaviour more socially acceptable to other people such as the ability to meet, mix and communicate with others, knowing how to share, take turns, and accept rules, having standards of cleanliness acceptable to others e.g. washing, using the toilet and eating in a manner which does not offend others.

Although children vary in their rate of social development, these variations have to do with differences in personalities and abilities. Also, the home environment greatly affects social development. In spite of this, children need contact with people and need to be accepted by people. No child can develop normally if isolated in an environment with limited contacts. Children develop socially as they have the opportunity to be with others, to co-operate with others,

and to assume responsibilities (Wehlage, 1989). Goleman (1995) and Sutlon-Smith (1997) indicated that playing with others gives children the opportunity to match their behaviour with others and to take into account viewpoints that differ from their own. Thus, play provides the rich experience children need to learn social skills; become sensitive to others' needs and values; handle exclusion and dominance; manage their emotion, learn self control; and share power, space, and ideas with others (Vygotsky, 1998).

As social organisms, human beings have a basic need to belong and feel part of a group and to learn how to live and work in groups with different compositions and for different purposes. Play serves several functions in satisfying these needs and developing these social life skills, for example, children of all ages need to be socialized as contributing members of their respective cultures (Goleman, 1995; Creasey, Jarvis and Berk, 1998).

Smilansky and Shefatya (1990) on the other hand, investigated how dramatic play helps children develop socially. Generally, pre-scholars play becomes more social as they get older. Smilansky and Shefatya (1990) found that by engaging in socio-dramatic play (dramatic play that involves more than one player), their social skills were enhanced. Participation in socio-dramatic play requires a high level of social ability, including cooperation, negotiation; sharing, problem solving, self regulation and appreciation of another's play efforts. Through

participation in socio-dramatic play, children develop skills necessary to regulate their own actions in order to keep the play going, to control themselves and their emotions, to be flexible in their responses to other players, and to transit from being an egocentric being (Frost,1992). The amount and complexity of fantasy play have been found to be predictors of social skills, popularity and positive social activity. Thus, young children who engage frequently in social fantasy play are more social competent than those who play less frequently (Frost, 1992).

Wehlage (1989) also identified rapid speech development as one of the social development of a pre-school child. This new skill allows children to interact with all age groups. The more children interact, the more their language skills improve. A child who does not have sufficient social contact, that is, does not have enough people and friends to talk to and play with will feel lonely. Feeling lonely over a long period of time can make a child unhappy and slow down development.

Pellegrini and Smith (1998); Bergen and Mauer (2000) identified that pre-school children have a decidedly largely number of social contacts and make better social adjustment than those who do not have this pre-school experience. They are better prepared for active group participation at this age and the kind of social experiences they have are more important than the number. However, if their contact with other children and adults outside the home are satisfying, even though infrequent, they will want to repeat them. But if their contacts are primarily

frustrating, they will go out of their ways to avoid meeting people, thus depriving themselves of important learning opportunities (Bergen and Mauer, 2000).

2.9.2 Social relationship with adults

Santrock (1996) and Rosenfeld (2000) noted that young children (pre-school) spend less time with adults and derive less enjoyment from being with them. At the same time, their interest in playmates of their own age mounts and their being with them increases. At this age, they developed growing desire to be independent of adults and there by become resistant to adults' authority.

In spite of their desire for independence, young children still try to gain attention and approval from adults. An experiment conducted by Harris *in* Rosenfeld (2000) shows that younger children more often looked to their teachers before making their choice of a toy, while older pre-schoolers more often looked to their peers. This suggest that adult influence is still strong but waning. There is also evidence that among pre-schoolers, outside adults often have more influence on their behaviour than parent. However strong the child's desire for peer contacts, parents and teachers are still largely responsible for providing a model for his/her developing social attitudes of good will and friendly cooperation toward all or of intolerance and prejudice towards those who are different (Gmitrova and Gmitrov, 2002).

2.9.3 Social relationship with other children

This is a kind of interaction that exists between one child and another. Before the age of two years, young children engage in solitary or parallel play (Connolly and Doyle, 1994). Even though two or three children play in the same room and with similar toys, but with little social interaction. Their contact consists of imitating or watching one another or attempting taking one another's toy. While from the age of 3 or 4, children begin to play together in groups, talk to one another while they play, and select whom they prefer to play with. The most common behaviour of these groups consists of watching each other, holding conversations, and making verbal suggestions. A study of children in pre-school has revealed that as children advance in age, there is an increase in friendly approaches to other children and a decrease in hostile interactions (Pellegrine and Smith, 1998; Fantuzzo and Wayne, 2002).

2.9.4 Common forms of social development

The kind of foundation laid in the babyhood has a greater effect on the social development of a child. Some of these behavious appear to be unsocial or even antisocial, but in reality each is important in the socialization process. The foundation laid in early childhood will determine how the child will adjust when his environment becomes broader and he does not have the protection and guidance of his parents (Hurlock, 1981). Some of these social behaviours include:

- **Negativism:** This is defined as a combination of self-assertion, self-protection, and resistance to excessive pressure. It is a product of social situation. It is the child's response to aggressive discipline or an intolerant adult attitude toward normal childish behaviour. It generally appears in connection with the established home routine, when the child refuses to perform a certain activity at a scheduled time (Huxley, 1996; White, 2004).

Resistant behaviour begins at about 18 month of age and reaches a peak between 3 and 6 years, after which it recedes rapidly. Among young children, negativism may be expressed by physical tenseness, the opposite of cuddliness; by failing to carryout requesting; by pretending not to hear or understand; by stubbornness in connection with routine activities, such as commanding, demanding, walking away or hiding when called. Between 4 and 6 years, physical expressions of resistance decline and verbalization increase. There is growing use of protective lying. The child uses "No" as an answer to all sorts of suggestions, questions and amiable approaches. He annoys others and makes repeated complaints (Banham, *in Kytta* 2004).

- **Quarrelling:** Quarrels are angry disputes that generally start when a person makes an unprovoked attack on another. They are thus an outgrowth of aggression. Quarrelling reaches its peak between the ages of 3 and 4 years and then begins to decline as the child learns to make social adjustment. A child quarrels because he

does not know how to make social contacts in a more mature way. Quarrelling begins when one child attacks another person's property (Christie, 2001). Among young children, a conflict over property is the usual starting point. This may involve destroying another child's work, taking away his toy, screaming, crying, biting, kicking, hitting, name calling and derogatory statements (White, 2004).

Quarrels among young children are short but intense; on the average, they last about 30 seconds and occur every 5 minutes while the children are together. As children grow older, quarrels occur less frequently but last longer and the fighting is harder (ACEI, 2002; Colson, 2006). The kind of activity engage by the children also influences the frequency and intensity of quarrelling. Constructive activities result in a great deal of quarreling because they involve comparism of performance. The least quarrel occurs when play is individual, quiet and intellectual (Ginsburg, 2007).

- **Rivalry:** Rivalry is characterized by a desire to out do others. It may take many different forms, one of the most common of which is young children is bragging about being first in some activity or about owning superior material possessions. Children of 2 year exhibit no signs of rivalry. When placed in a competitive situation, they merely look at each other occasionally. After one year, some competition appears, but it is eclipsed by other social attitudes especially imitation. By four (4) years of age, children have better idea of excelling, and by six (6), most have a well-developed competitive spirit (Hughes, Noppe and Noppe, 1988;

Smilansky, 1990).

- **Cooperation:** Since the child of 2 or 3 years is self-centred and quarrelsome, it is difficult to get him to play in a cooperative manner with other children. By the end of the third or fourth year, however, cooperative play becomes more successful (Hurlock, 1981). The more opportunities the little child has to be with other children the sooner he will learn to cooperate with them. Delay in developing cooperative behaviour is often due to lack of opportunity to learn work skills in the home. For too often the young child who wants to "help" his mother is not allowed to because she thinks he will be more of a hindrance than a help or because she feels childhood should be a happy, and care free time (Hardy, Power and Jaedicke, 1993). Similarly, where authoritarian child-training methods are used in the home to force cooperation children often develop negative attitudes and tend to be uncooperative when parental authority is absent (Moore and Wong, 2000). Children brought up by more democratic child-training methods, by contrast, usually enjoy being cooperative. They develop the habit of cooperation at home and carry it into their out-of-the home activities (ACEI, 2002).

- **Generosity:** Generosity is the willingness to share with others. The young child is egocentric. He demands what he wants, and if it is denied, he will protect by crying or displaying his anger in a temper tantrum. Only after he begins to play with others does he begin to learn to submerge self-interest in the interests of the group

(Hurlock, 1981). Selfishness usually reaches a peak between the ages of 4 and 6 years. It then declines as the child discovers that it leads to social rejection. By the end of childhood, selfishness has almost completely disappeared in children who make good social adjustment, though it continues to be a common form of behaviour in others (Harris, 1990 and Vincent, 2005).

Rowlands, (1997); Olaitan and Akpan (2003) pointed out that children must have a model of generosity to imitate and they must be given approval when they imitate successfully. On the other hand, they learn to be generous by observing how another child benefits from his generosity and if his social acceptance is improved by a generous act that is evidence that generosity pays (Burdette and Whitake, 2005); although children tend to be more toward their friends than non friends.

- **Desire for social approval:** Even a baby likes to be noticed. Long before he can talk, he senses that he is the centre of admiration and attention. With each succeeding year, the desire for approval, first of adults and later of peers, increases. This desire to impress others often brings the child into conflict with adult rules and the code of the social group (Gardner, 1993). Lack of social approval makes the child unhappy and often drives him to behave in a way that he has learned from experience and invariably gets attention. Some children have a greater need for social approval that is a higher approval motive than others. If the approval motive is high, the child will conform to social expressions, even when they are contrary to

his interests or standards of behaviour (Peters, 2006).

- **Sympathy:** This is situation where one is affected by emotional states of another. This is possible only when one is able to emphasize or image himself in the position of another. Because of their experiences, young children are incapable of sympathetic behaviour in many situations. As they become older and have themselves been in a situation similar to that of the other person they can respond with sympathy (Henry, 1990).

Young children express sympathy by helping, protecting or defending others; by removing, attempting to remove or punishing the cause of distress by comforting others with pats, hugs, and kisses; by asking questions to an adult or another child and appealing for solutions (Smilansky, 1990). Some show sympathy by being kind to a new comer in a group of those who are unable to defend themselves. Unsympathetic responses include laughing at the person to distress; using the situation to play one's own role, usually a dominating one; attacking a child in a distress or merely starting (Goleman, 1995; Ginsburg, 2007).

- **Dependency:** A child depends on others for help in doing things he cannot do himself or believes he cannot do. He also depends on others for love and attention and for ego support in situation where he questions his own adequacy. Thus, the independence conscious child who constantly says, "I can do it", is still fundamentally dependent. At first, the child is dependent on his parents; later, he

shifts some of thi

as parent substitut

- **Friendliness:**

They crave social

Studies reveal tha

aggressive appro

kissing and stroki

by trying to prote

wanting to be wit

(Peters, 2006). A

such remarks as "

2.10 Empiric

Similar

studies was conc

Kindergartens w

oriented kindergartens excelled over the others in every area measured - physical, emotional, social and intellectual development. The overall results were so compelling that Germany switched all its kindergartens back to being play oriented (Almon, 2002).

Although the role of play in enhancing learning in pre-school children is very important, the researcher is of the opinion that the sample size used for both play oriented and academically oriented kindergartens by the author was inadequate. This should not warrant generalization that even compelled Germany at that time to convert all kindergartens back to play oriented. Moreover, the method employed by the author which followed the children up to the fourth grade before the desired result was obtained was not meant for short term educational planning and therefore, may not work in areas where government want to take prompt actions.

Smilansky (1980) experimented on the role of dramatic play and socio--dramatic play in cognitive and socio-emotional development on three to six- years old children. The children were observed and tested on the following element- how the child undertook a make- believe role, how the child used make-believe to transform objects into things necessary for the play, and verbal descriptions or exclamations used at times in place of actions or situation. The play scenarios lasted for ten minutes, two players interacted within the play scene and there were some verbal communication involved within the play. The result of the observation

showed that their ability to engage in dramatic and socio-dramatic play was found to be directly linked to a wealth of skills all of which were essential for academic success. Smilansky's findings were as summarized below:

Gains in cognitive-Creative Activities

Better verbalization
Richer vocabulary
Higher language comprehension
Higher language level
Better problem- solving strategies
More curiosity
Better ability to take on the perspective of another
Higher intellectual competence
Better peer cooperation
Reduced aggression
More group activity

Gains in socio-emotional Activities

More playing with peers
Better ability to take on the perspective of others
More empathy
Better control of impulsive actions
More innovative
More imaginativeness
Longer attention span
Greater attention ability
Better emotional and social adjustment
Better prediction of others' preferences and desire

The result of the study showed that socio-dramatic play activated resources that stimulated emotional, social and intellectual growth in children but when children did not have rich play opportunities, and/or the curriculum failed to engage

the imagination, learning was dull.

Vukelich (1994) carried out an experimental research on literacy skill development through play on 10 children of ages 4-5 years who were randomly sampled. The study embedded literacy materials within play settlings in pre-school, kindergarten, and multiage programs. The instruments used in the study were teacher- made test and observation. The result showed that kindergarten children's ability to read print embedded in the environment increased. In a longitudinal study, Bergen and Mauer (2000) found that children who had high levels of play with literacy materials in pre-school were likely to be spontaneous readers of place signs and have greater pretend verbalization in a "town-building" activity at age of five.

The present researcher believed that literacy skill could be shaped through play. This is seen as equally possible because as children are continually exposed to various kinds of play materials their learning ability is also developed. The author however, limited the sample size to only 10 children. This seems inadequate to the researcher looking at the pre-school, kindergarten and multi age programmes covered by the research.

Russ *in* Ike (2007) conducted an experiment titled "importance of good early fantasy play on children". The author used 121 children in their first and second years of primary school as study population. Russ used creativity test as an instrument for collecting data. At the end of the study it was found out that those

who used more fantasy expressed more emotions as they played with blocks and puppets, and scored highest in uses-for-the-object test. In a second study using 31 of the same children in primary six, Russ found that those who were most sophisticated at play when they were younger did better four years later, not just on object test, but on their ability to sort their way out of stressful situations. Russ concluded that good early play skill predicted the ability to be creative and generate solution to everyday problems.

The past researcher's finding that early exposure of children to play activities influenced their later creative abilities is acceptable to the present researcher. This has also gone a long way to suggest that the children's imagination and mental abilities were actually encouraged by the fantasy plays they had early in school. However, the present researcher felt that the children population used was small. The researcher could have used the same number of children used in the first study (121 children) for better assessment and conclusion.

Another research titled "the impact of pretend play on young children's cognitive development" was carried out by Gmitrova and Gmitrov (2004) on two mixed age classes of children 3-6years attending one kindergarten in the Slovak republic using video to record 26 lessons lasting 25 minutes each. Their analysis was based on observed behaviour, for example child to child and/or child to teacher, looking at interaction/communication. The result of their studies indicated that

'pretend' play enhanced the children's social, emotional, and cognitive developments. On the basis of their studies the authors concluded that 'high quality' pretend play served as a medium through which children can progress in areas beyond the knowledge of curriculum thus preparing them more fully for the next stage in their formal education.

The present researcher agreed with the author's analysis that pretends play has impact on the cognitive development of children in as much as it is associated with children's assumption of adult roles and responsibilities. This will also create boldness in children that may even continue into the later years of some of these children thus making them understand the world around them faster and better than their peers who were not exposed to such experiences.

A close look at the above empirical studies showed that research studies on the effect of play and play materials on the social development of the pre-school child have not been carried out. Therefore, this shows that an area of study has been left out which this particular research will consider.

2.11 SUMMARY

The Literatures reviewed in this chapter revealed that play is the major work or activities in which all children are actively engage in when suitable play materials are available. This then suggested that children's play can be at stake when materials to play with are not available. Also, depending on the age of children and

the types of play materials available, children can engage in several types of play ranging from exploratory, dramatic, creative, and physical to social plays. Although children can select their play materials, it is best achieved with the help and guidance of parents and teachers who mostly work at ensuring safety of children. Besides, purchase and maintenance of play materials are carried out by adults.

The advantages of play and play materials in the development of children are enormous. There is, therefore, no wasteful play in children. It eases learning and contributes to all domains of development (social development inclusive), which parents and teachers would rather encourage than stop. History of children in contact with nature also revealed that play in children is not recent but it is as old as man. However, with the space of time, it has undergone several modifications although having the same meanings and purpose in children.

Some of the ways parents and teachers can encourage children's play are by giving them enough time to play, relaxing the magnitude of rules, guiding their play and providing suitable play materials and safe environment for play. Findings of some studies carried out relating to play, summarily showed that play generally had positive effects on children. But the effect of play and play materials on the social developments of the pre-school child does not seem to have been thoroughly researched into. It is this gap that the current study attempted to fill.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter presented the research design and methodology under the following sub-headings:

3.1 Research Design

3.2 Population for the Study

3.3 Sample Size and Sampling Procedure

3 4 Instrument for Data Collection

3 4.1 Validation of the Instrument

3.4.2 Pilot study

3.4.3 Reliability of the Instrument

3.5 Procedure for the Data Collection

3.6 Procedure for Data Analysis

3.1 The Research Design

For this research study, experimental design was used. Experimental design is a design that provides a systematic and logical procedure of identifying and evaluating the relationship between variables that create a particular state of affairs under control condition (Bello and Ajayi, 2000). Samples were selected from the population randomly; these samples were divided into experimental and control groups. The experimental group and the control group were given a pre-test and post-test treatments, so that treatment effects upon the samples were measured. The effects of the pre-test, post-test given were observed. The experimental group was

exposed to the different kinds of play (free play) and play materials that enhanced social development, while the control group was not exposed and the effects of play and play materials were observed and recorded on the social development scales of the two groups of respondents (pre-school children).

3.2 Population for the Study

The population for the study comprised of all the sixty four (64) registered nursery schools in Kaduna Metropolis. This was because most of the nursery schools were located in the Metropolis and majority of the play materials were found in the schools (Kaduna State Private Schools Board, 2007). The total number of Nursery School children in the sixty four (64) registered Nursery schools in the Metropolis, according to Kaduna State Private Schools Board (2007), was eight thousand nine hundred and eight (8,908). Table 3.1 showed the population of Nursery Schools and Nursery School Children in Kaduna Metropolis.

Table 3.1: Population of Nursery School and Nursery School Children in Kaduna Metropolis.

Total Number of Nursery Schools	64
Total Number of Nursery School Children	8,908

Source: Kaduna State Private Schools Board, 2007

* For details, see Appendix II

3.3 Sample Size and Sampling Procedure

Proportional random sampling method was adopted to select the control and experimental groups. It is a general and effective method used in experimental research design to have cause and effect (dependent and independent) relationship between the two groups. Two (2) schools from the total sixty four (64) nursery schools in the Metropolis were randomly selected that is, the two (2) schools served as sample schools. This is in line with Roscoe (1975) who suggested a small sample size from the target population in an experimental design. The sampled schools were selected systematically, that is, by selecting every 32nd even number from the target population. Proportional random sampling method was used to select sixty (60) pre-school children from the two (2) sampled schools in the Metropolis. That is, thirty (30) pre-school children were used as control group and another thirty (30) pre-school children as experimental group. This was also in line with Roscoe (1975); Gay and Diehl (1992) who suggested a sample size of 30 subjects per group in an experimental design. Table 3.2 showed the detail information of sampled nursery schools and nursery school children in Kaduna metropolis.

Table 3.2: Sample Size of Nursery Schools and Nursery School Children in Kaduna Metropolis

S/N	Name of Schools	Groups	Total No. of sampled children/school
1.	I.V.Y. International School	Experimental	30
2.	Methodist Church Nur/Pri Sch.	Control	30
TOTAL			60

3.4 Instrument for Data Collection

For this study, primary data were collected. These data were collected through the use of personal observation method by the researcher. Observation method of data collection enabled the researcher to gather data only by watching the activities and recording information. The researcher used ten (10) social indices and five (5) social expressions each on the pre-school children. Among the social indices and social expressions, there were five (5) positive and five (5) negative which the pre-school children expressed. The indices included:

Positive Social Development Indices
- Generosity
- Sympathy
- Friendliness
- Rapid speech development
- Cooperative play

Negative Social Development Indices
- Desire for social approval
- Negativism
- Attention seeking
- Quarrelling
- Dependency

The test scores were marked over hundred percent (100%) and where the scores were fifty percent (50%) and above for the positive expression, they were considered as pass marks. Each social expression carried one (1) mark thereby given a total score of five (5) marks for each index. Table 3.3 presents the social development indices and their expressions for pre-school children:

Table 3.3: Social Development Indices and Expressions for Pre-School Children.

INDICES	EXPRESSION	SCORE
GENEROSITY	- Willingness to share - Willingness to help -Compassionate -Caring - Selfishnessless	
	SUB-TOTAL	
SYMPATHY	-By helping -Protecting/defending others -Reporting the situation to an adult or another child -By pats or hugs -Asking question to find the the cause of distress	
	SUB-TOTAL	
FRIENDLINESS	-Hugging -By trying to protect -By comforting -By wanting to be with the person -I want to go with you	
	SUB-TOTAL	
RAPID SPEECH	- What is your name - Where do live -You are my friend - I want to go with you -Buy this or that for me	
	SUB-TOTAL	
COOPERATIVE PLAY	-Likes to pretend -Plays simple games -Learns to fit into the group -Learns to contribute -Selfishlessness	
	SUB-TOTAL	
DESIRE FOR SOCIAL	-Likes to be noticed -Needs for attention -Desires to impress others - Selfishness -Makes urgent request for help	

NEGATIVISM	-Physical tenseness -Pretending not to hear -stubbornness - Walking away -Hiding when called	
	SUB-TOTAL	
ATTENTION SEEKING	-Making lots of noise -coughing -Refusing to eat -Having temper tantrums -Passing urine in the wrong place at the wrong time	
	SUB-TOTAL	
QUARRELLING	-Destroying another child's work -Taking away his toy -Screaming -Crying -Biting	
	SUB-TOTAL	
DEPENDENCY	-Highly suggestible -Easily influenced -Seeks attention -Frantically asks for help -Asks unnecessary questions SUB-TOTAL	
	GRAND TOTAL	

Source: Hurlock, E.B (1981). Child Development (6th ed). McGraw-Hill International Book, London.

3.4.1 Validation of the Instrument

The drafted indices were vetted by the senior lecturers in Home Economics and statisticians for face and content validity. The corrected indices were used for pilot study to ascertain the validity and reliability of the instrument for the study.

3.4.2 Pilot Study

A pilot study was conducted in Zaria Local Government Area in Kaduna State. This area was chosen for the pilot study because it had Nursery classes one to three and also had similar problems with those of the other schools in the other Local Government Areas in the State. The aim of the pilot study was to determine the suitability of the instrument for the study, and to ascertain any difficulty that the researcher may have when carrying out or conducting the observation and to reduce any possible ambiguity in using the indices. The pilot study was conducted on twenty (20) pre-school children, where ten (l0) served in the experimental group and the other ten (10) in the control group. The data collected from the pilot study were coded and subjected to appropriate statistical analysis using Pearson Product Moment Correlation Coefficient (r) method to get the reliability of the instrument.

The ten social indices and their expressions were easily observed by the researcher. At the end of the pilot study, ninety five percent (95%) of the respondents (children) were observed. Table 3.5 showed the result of the pilot study conducted:

Table 3.4: Pilot Study Result

Groups	Total No. of Cards	No. of Responses	Missing Cases
Experimental group	10	9	1
Control Group	10	10	0
TOTAL	**20**	**19**	**1**

$$\textit{Average percentage therefore is: } \frac{\textit{Total No. of response } x\,100}{\textit{Total No. of Cards}} = \frac{19x100}{20} = 95\%$$

3.4.3 Reliability of the instrument

An instrument is only reliable to a degree that it measures accurately and consistently what it is supposed to measure, yielding comparative result when administered a number of times (Akuezuilo and Agu, 2003). The Statistical Package for the Social Sciences (SPSS) was used with Guttmann Split-Half procedure for reliability coefficient, and to determine the internal consistency of the instrument.

The reliability coefficient calculated was 0.953 using Spearman Brown formula. The internal consistency coefficient was 0.974. These showed that the instrument was reliable and valid; based on the proposition of Mukherjee (1980) that the average value of correlation coefficient must be around 0.80 for an instrument to be considered reliable.

$$\text{Reliability} = \frac{2 \times \text{total \% of respondents}}{1 + \text{total \% of respondents}} = \frac{2 \times 0.95}{1 + 0.95} = \frac{1.90}{1.95}$$

Reliability = 0.974 ~ Reliability = 0.97

3.5 Procedure for Data Collection

The researcher, with the help of three trained research assistants observed the two groups of respondents, the experimental and the control groups. A pre-test was conducted on the two groups of respondents. Pre-test, according to Asika

(2004), is a test that assumes all groups to be similar in relevance performance before the experimental condition is applied. After the pre-test, the experimental group was exposed for one month to free play time and suitable and appropriate play materials like; dolls, puppets, musical instruments, construction toys, sand and water. The control group on the other hand was restricted in their play and no play materials were provided for them. Progressively during the observations, data were collected from both the experimental and control groups, tested or examined using the ten social indices so as to determine their social development.

3.6 Procedure for Data Analysis

Data collected were analyzed in a tabular form by using appropriate statistical procedures such as Frequency, Percentage, Mean, and Standard Deviation for the demographic (social indices/expressions) variables, while t-test statistics was used to test the three Null Hypotheses at 0.05 level of significance.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

This chapter presented the statistical analysis and interpretation of the data collected from the pre-school children in relation to play and play materials and their social development in Kaduna Metropolis. The analysis involved the use of Statistical Package for Social Sciences (SPSS) to analyze the score cards. The analysis consisted of descriptive and inferential statistics. This chapter is presented under the following sub-headings:

4.1 -Analysis of pre-school children's play.
4.2 -Analysis of pre-school children's play materials.
4.3 -Analysis of the Social development Indices of the Experimental and Control Groups of the pre-school children in Kaduna Metropolis.
4.4 - Testing of hypotheses
4.5 - Discussion of findings.

4.1 Analysis of Pre-School Children's Play.

The researcher observed thirty (30) pre-school children each for the experimental and control groups. This was to enable the researcher identify the different kinds of play engaged in by these group of children. The observation showed that the experimental group had access to all the five (5) different kinds of social development plays outlined by the researcher namely: physical play, exploratory play, imaginative play, creative play and social play. They also had access to free play and engaged in free play activities. The experimental group

played every day in the school for about two hours. The control group on the other hand had few play activities and did not have access to free play. They had restricted kind of play activities and played under controlled environment, within little time (30 minutes).The control group played for only two days in a week, while the remaining three days were spent on television viewing.

4.2 Analysis of Pre-School Children's Play Materials.

In the experimental school, the researcher observed that the pre-school children had access to and freely used all the eighteen (18) social development play materials outlined by the researcher namely, Dolls, soft toys, pictures drawing materials, painting materials, puzzle, sand, water, climbing frames, balls, tricycles, jigsaws, bells, cymbals, triangle, drum, building blocks, and construction toys. While in the control school, children had access to and used only two of these play materials namely, pictures and balls.

4.3 Analysis of the Social Development Indices for the Experimental and Control Groups of the Pre-School Children in Kaduna Metropolis.

Thirty (30) pre-school children each for experimental and control groups were selected from the two schools in Kaduna Metropolis, namely, I.V.Y International School and Methodist Church Nursery/Primary School. The study considered ten social development indices where five (5) were considered as Positive social development indices namely: Generosity, Sympathy, Friendliness,

Rapid speech development, and Cooperative play, and the other five (5) as Negative social development indices namely: Desire for social approval, Negativism, Attention seeking, Quarrelling, and Dependency. Each of these indices comprised of five social expressions by the pre-school children. The score cards also contained questions on the different types of free play engaged in by the pre-school children, the number of times they played or watched television and the kinds of play materials available in the schools.

The researcher observed that both the experimental and control groups engaged in all the five different types of free play outlined in the score cards. On the question of how often they engaged in free play activities, it was also observed that the experimental group played every day, while the control group was restricted to play only twice a week and in an organized area, and the remaining three days were spent on television viewing. Added to this was the question of kinds of play materials available in the schools. Out of the eighteen (18) different kinds of play materials outlined by the researcher, the experimental school had all the eighteen (18) play materials, while the control school had only two (2).

The distribution of the pre-school children according to social development indices for experimental and control groups and the types of play engaged in by these children were carried out by summing up the expressions on each index and the play activities on each type of play. This was to enable the

researcher have a clear view and understanding of each index and the type of free play engaged in by these children. The number of expressions on each index were five (5). This number (5) multiplied by the number of pre-school children in each index gave the total number of expressions on which the pre-school children's social development frequencies were determined. The distribution of the pre-school children's positive and negative social development indices and the types of free play engaged in by this group of children are presented on the Tables 4.1 to 4.6.

Table 4.1 Distribution of Pre-school Children on Positive Social Development Indices for Experimental Group

Indices of Social Development	Expressions	No. of children observed	Total No. of expressions	Number/percentage of expressions
Generosity	5	30	150	123 (82.0)
Sympathy	5	30	150	142 (94.7)
Friendliness	5	30	150	142 (94.7)
Rapid speech	5	30	150	136 (90.7)
Co-operative play	5	30	150	143 (95.3)
TOTAL			**750**	**686 (91.5)**
MEAN SCORE				**137.2**

The data in Table 4.1 indicated that the total mean score and percentage for the positive social development indices for the experimental group were 137.2 and 91.5%, respectively.

Table 4.2: Distribution of Pre-school Children on Positive Social Development Indices for Control group

Indices of Social Development	No. of expressions	No. of children observed	Total No. of expressions	Number/percentage of expressions
Generosity	5	30	150	53 (35.3)
Sympathy	5	30	150	47 (31.3)
Friendliness	5	30	150	36 (24.0)
Rapid speech	5	30	150	40 (26.7)
Co-operative Play	5	30	150	48 (32.0)
TOTAL			**750**	**224 (29.9)**
MEAN SCORE				**44.8**

The data in Table 4.2 indicated that the total mean score and percentage for the positive social development indices for the control group were 44.8 and 29.9%, respectively.

Table 4.3: Distribution of Pre-school Children on Negative Social Development Indices for Experimental Group

Indices of Social Development	No. of expressions	No. of children observed	Total No. of expressions	Number/percentage of expressions
Desire for social approval	5	30	150	92 (61.3)
Negativism	5	30	150	36 (24.0)
Attention seeking	5	30	150	27 (18.0)
Quarrelling	5	30	150	18 (12.0)
Dependency	5	30	150	43 (28.7)
TOTAL			**750**	**216 (28.8)**
MEAN SCORE				**43.2**

From the data in Table 4.3, the total mean score and percentage for the Negative social development indices for the experimental group were 43.2 and 28.8%, respectively.

Table 4.4: Distribution of Pre-school Children on Negative Social Development Indices for Control Group

Indices of Social Development	No. of expressions	No. of children observed	Total No. of expressions	Number/percentage of expressions
Desire for social approval	5	30	150	39 (26.0)
Negativism	5	30	150	103 (68.7)
Attention seeking	5	30	150	125 (83.3)
Quarrelling	5	30	150	121 (80.7)
Dependency	5	30	150	130 (86.7)
TOTAL			**750**	**518 (69.1)**
MEAN SCORE				**103.6**

The data in Table 4.4 revealed that the total mean score and percentage for the negative social development indices for the control group were 103.6 and 69.1%, respectively.

Table 4.5: Distribution of Pre-school children according to Type of Free Play Engaged in for Experimental Group.

TYPES OF PLAY	No. of play activities	No. of children observed	Total No. of activities available	Number/percentage played
Social Play	5	30	150	114(76.0)
Physical Play	5	30	150	123 (82.2)
Creative Play	5	30	150	125 (83.3)
Imaginative Play	5	30	150	110 (73.3)
Exploratory Play	5	30	150	111 (74.0)
TOTAL			**750**	**583 (77.7)**
MEAN SCORE				**116.6**

The data in Table 4.5 revealed that the total mean score and percentage for the available free play activities engaged in by the experimental group of children were 116.6 and 77.7%, respectively.

Table 4.6: Distribution of Pre-school children according to Type of Restricted play engaged in for Control Group.

TYPES OF PLAY	No. of Play activities	No. of children observed	Total No. of activities available	Number/Percentage played
Social Play	5	30	150	64 (42.7)
Physical Play	5	30	150	89 (59.3)
Creative Play	5	30	150	43 (28.7)
Imaginative Play	5	30	150	61 (40.7)
Exploratory Play	5	30	150	73 (48.7)
TOTAL			**750**	**330(44.0)**
MEAN SCORE				**66**

Table 4.6 showed that the total mean score and percentage for the restricted play activities engaged in by the control group were 66 and 44.0%, respectively.

4.4 Testing of Null Hypotheses

Three Null hypotheses were postulated for the study. The Null hypotheses were to determine the effects of play and play materials on the social development of the pre-school children. Two groups of subjects were compared in order to determine the possible difference in their social development. The Null hypotheses formulated in the study to guide the investigation are as follows:

Null Hypothesis I

There is no significant difference in the social development of the pre-school children who use free play and play materials and those who do not.

In order to answer or test the null hypothesis, a paired sample t-test statistics was used. The result of the test is shown in the Table 4.7

Table 4.7: Paired t-test Social Development Indices (Experimental Vs Control)

	No.	Mean	S.D	df	t	P (Sig)
Social indices Experimental	30	29.4000	3.0693			
Pair 1					5.357	.000
Social indices Control	30	25.4333	1.8134	29		

The paired sample t-test result in Table 4.7 presented 29.4000 and 25.4333 as results of the collective mean for social development indices of Experimental and Control groups, respectively. This showed a clear difference in the social development of the Experimental and Control groups. In addition, the calculated value of t = 5.357 was greater than the table value of 1.96 at 0.05 level of significance. This means that there was a significant difference in the social development of the pre-school children that used free play and play materials and those who did not. Therefore the null hypothesis was rejected.

Null Hypothesis II

There is no significant difference in the effects of free play and lack of free play on the social development of pre-school children in Kaduna Metropolis.

Table 4.8: Paired-t-test Free Play (Experimental Vs Control)

	No.	Mean	S.D	df	t	P (Sig)
Free-play Experimental.	30	19.4667	2.78109			
Pair 1				29	11 .435	0.000
Free-play Control	30	11.7000	2.25501			

Table 4.8 revealed that the calculated t = 11.435. This was compared with statistical table value of 1.96 at 0.05 level of significance. Since the calculated t of 11.435 was greater than the table value of 1.96, it means there was significant

difference between the two groups of variables. In fact the calculated mean of the paired t-test in Table 4.8 also confirmed this significant difference. This was shown to be 19.4667 and 11.7000 for experimental and control groups, respectively. Also, the standard deviation for experimental and control groups were 2.78109 and 2.25501, respectively. These showed that there was a significant difference between the effect of free play and lack of free play on the social development of the two samples. The null hypothesis is therefore, rejected.

Null Hypothesis III

There is no significant difference in the effect of play materials and lack of play materials on the social development of pre-school children in Kaduna Metropolis.

Table 4.9: Paired t-test Play Materials (Experimental Vs Control)

	No.	Mean	S.D	df	t	P(Sig)
Play Materials-experimental	30	12.9667	4. 50657			
Pair 1				29	6. 781	0.00
Play Materials-Control	30	1.3333	0.46328			

The results in Table 4.9 indicated calculated t value was 6.781 which is greater than statistical table value of 1.96 at 0.05 level of significance. This showed a significant difference between the two value variables tested that is, play materials for experimental and control groups. Also, looking at the descriptive part of the

calculated paired t-test calculated above, the means for experimental and control groups were 12.9667 and 1.3333, respectively, while the calculated standard deviation gave 4.50657 and 0.46328 for experimental and control groups, respectively. Therefore, there was a significant difference between play materials used for the experimental group and play materials for the control group; hence the Null hypothesis 3 was rejected.

4.5 Discussion of findings

The research study was to determine the effect of play and play materials on the social development of the pre-school children in Kaduna Metropolis. Two groups of pre-school children were observed in relation to the kinds of play and play materials they used and the effects of such materials on their social development. In order to achieve the stated objectives of the study, three Null hypotheses were postulated and tested. The interpretations of both the descriptive and inferential analyses were done, and detailed discussions of the findings were enunciated or discussed thus:

Null Hypothesis I: This Null hypothesis tested the difference in the social development of the pre-school children who used free play and play materials and those who did not. There was significant difference in their social development. Tables 4.1 and 4.2 data clearly showed these differences, where the mean and

percentage of the experimental group's social development indices were 137.2(91.5) while that of the control group was 44.8(29.9). The standard deviation of the experimental group was 3.0693, while that of the control group was 1.8134 which indicated a difference between the social development of the experimental group and that of the control group. It was also observed that the pre-school children from the experimental group expressed most of the social development indices, as compared to the pre-school children in the control group who expressed just few of these indices.

It can be concluded that the social development of the experimental group (children who freely used free play and play materials) was positively skewed, while the control group whose free play and play materials were restricted was negatively skewed. This finding is in accordance with Band (1980) and Erickson (1985) who stated that undirected play and provision of appropriate play materials allowed children to learn how to work in groups, to share, negotiate, resolve conflicts and to learn self advocacy skills. Erickson (1985); Pellegrine (1998) and Hurwitz (2003), noted that when play was allowed to be child driven, children practiced decision making skills, moved at their own pace, discovered their own areas of interest, and ultimately engaged fully in the passions they wished to pursue.

This observation was also in agreement with Ononuju (2004), who observed that play was the business of all children or young ones and they learnt

from it to organize their perceptions, test out their experiences and manage their feelings. They also discover themselves and the world around them, project their self images, assert their ego, lead others and be led and understand others around them. On the other hand, Ike (2007) opined that lack of play among children made the child to be anti-social, such child can not find out about himself/herself and the world, can not discover, express ideas, develop speech, learn how other people behave, share possessions, co-operate with others and act protectively toward someone less powerful than him/her.

Null Hypothesis II: The Null hypothesis tested the difference in the effect of free play and lack of free play on the social development of the pre-school children in Kaduna Metropolis. The finding revealed that those who had free play were more socially developed than those who did not. Tables 4.5 and 4.6 data clearly showed these differences, where the mean and percentage of the experimental group's free play was 116.6(77.7) while that of the control group restricted play was 66(44.0).

The researcher also observed that the experimental group had access to the five (5) different types of play outlined in the study namely: exploratory or discovery play, imaginative or dramatic play, creative play, physical play and social play while the control did not. These differences were also shown in their mean scores and standard deviations, respectively. This finding is in agreement with Frost (1992), who reiterated that young children who had access to play frequently were

more socially competent than those who had little or no play at all. Children learn best not when they are told, but when they can act upon their environments and construct knowledge for themselves. This observation was also in lined with Hildebrand (1997) and White and Stoecklin (1998), who stated that most important learning, took place when children appeared to be playing aimlessly. This observation was consistent with McCune and Zanes (2001), who established that free play showed children that anti-social behaviours like cheating, led to isolation and loss of friendship. Young children learn about others reactions, dealing with peers and other people during play and make life more satisfying.

Environment matters a lot in the lives of little children. A child who goes to public school of a poor, remote, backward village will certainly not be able to express himself/herself in those positive indices contained in this study, while a child who goes to an advanced private school of a big city with all the necessities of life provided will surely express or posses most of the positive social indices indicated in this study. Another dimension to the analysis of this study was in the type of free play that the pre-school children engaged in during their play sessions. It was discovered that out of a total number of twenty five (25) different types of free play activities recorded, children from the experimental group were engaged in an average of twenty (20) of these free play compared with children in the control group where most of them were engaged in an average of five. This relative

difference is not a coincidence but a practical manifestation of what is actually obtainable in these two different groups. While children in the experimental group were encouraged to engage in these free plays, the reverse was the case for pre-school children in the control group.

Null Hypothesis III: The Null hypothesis tested the difference in the social development of pre-school children who had access to play materials and those who did not. There was significant difference between the two sets of subjects. It was observed that pre-school children who had access to play materials were significantly different from those who had none. This finding is in agreement with Frank (1986), who reported that children will 'master their experiences through continual play with play materials, which is actually most intensive and fruitful learning in their whole life circle.' ACEI (2002) also agreed with the findings of this study where it acknowledged that provision of adequate and appropriate play materials provided children with opportunities for developing mastery of competence with social skills.

Another important difference found between the experimental and control groups was in the kind of play materials available in their school. The researcher listed 18 different play materials and each was required to be ticked based on their availability in the school, and the outcome was very challenging. While the experimental group had all the 18 kinds of play materials available in their school in

sharp contrast, the control group had only 2 play materials available in their schools. This further explained why children from the experimental group could be more relaxed, happy and sociable.

The researcher also included in the score cards the question of how often the children played at school. This question was included to ascertain how often these available play materials were used and the regularity of the children engaging in the free play so as to imagine how socially the children will develop. From the recorded outcome of the question, the experimental group played everyday at school, while the children in the control group played only twice a week. This will make a significant difference this will make in the lives of the children. The physical exercise should be on daily basis and not some days of the week. It is likely that children from the control group will consequently be dull and antisocial, and they may not be able to assimilate or understand very well the directives or teachings of their teachers. On the other hand, children from the experimental group will likely be better socially and academically, this is because they had access to play and play materials and used them everyday.

Another variable which the researcher included in the score card was on how often the children watched television in the school. All the children in the experimental group indicated that they watched television at least once every week, while children in the control group said they watched it everyday. Social

development of the control group was mostly negative .This indicated that sitting a child over the television every day for long hours may also develop anti-social traits in the child.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary as well as findings of the study. It also consists of the following sub-headings:

5.1 Summary

5.2 Conclusion

5.3 Recommendation

5.4 Limitations of the study

5.5 Educational Implication

5.6 Suggestions for further study

5.1 Summary

The study aimed at determining the effect of play and play materials on the social development of pre-school children in Kaduna Metropolis. This topic was chosen because of its inherent importance and significance to the physical, emotional and social development of this group of children who are the true leaders of tomorrow. The four objectives were to:

1. identify the different kinds of play and play materials available among pre-school children in Kaduna Metropolis.
2. determine the effect of using and not using free play and play materials on the social development of the pre-school children in Kaduna Metropolis.

3. determine the effect of access and non access to free play on the social development of the pre-school children in Kaduna Metropolis.
4. determine the effect of social development of pre-school children who have access to play materials and those who do not.

Four research questions were also raised in the study and answers were provided, while three Null hypotheses were postulated and tested with the relevant statistics.

Chapter two which is the review of related literature gave a broad spectrum on the conceptual framework, the different types of play and play materials, advantages of play on the pre-school children and disadvantages of lack of free play on children. Empirical studies and summary of the related literatures were also included in the chapter.

Chapter three was the research design and methodology. The study was conducted in two Nursery schools in the Kaduna Metropolis. The researcher used experimental research design in carrying out the study. Sixty (60) pre-school children were used as samples that is, thirty (30) served as experimental group and the other thirty (30) as control group. Data collected were analyzed using frequencies, mean, percentages and standard deviation for the demographic variables (social development indices), while t-test statistics was used in testing the three Null hypotheses. There were significant differences between the experimental

group and the control group of pre-school children as indicated in the tables in chapter four. The results of the Null hypotheses revealed that in Null Hypothesis I there was significant difference in the social development of the pre-school children who used free play and play materials and those who did not. Also in Null Hypothesis II there was a significant difference in the social development of the pre-school children who had access to free play and those who did not in Kaduna Metropolis. In addition there was also significant difference in the social development of pre-school children who had access to play materials and those who did not as revealed in the tested Null Hypothesis III. The social development of those who had access to free play and play materials skewed toward positive social development traits, while those who did not skewed toward negative traits.

5.2 Conclusion

The findings of this study was that children who were exposed to the right play materials and allowed to engaged in free play showed more positive social behaviour than those who were not exposed. In other words, they were more socially competent than those who had no access to play and play materials. Based on the findings of the study, it can be concluded that free play and provision of appropriate play materials are essential for the development of positive social behaviour in children. It helps them to be happy, reduce their stress and nervousness, helps them organize their perceptions, manage their feelings, discover

themselves and the world around them and project their self image. Free play and play materials also help children assert their ego, lead others and be led, understand others around them and master their experiences. The findings also lead to the conclusion that children learn best not when they are told, but when they can act upon their environment and construct knowledge for themselves. In addition, free play and provision of appropriate play materials teach children that anti-social behaviour like cheating leads to isolation and loss of friendship.

5.3 Recommendations

Having discussed the results of this study, the following recommendations were put forward:

To the Parents and Teachers:

Where possible, parents should send their children to private schools with enough and appropriate play materials where children are allowed to engage in free play everyday rather than being restricted to certain play and play materials with lots of television viewing. Parents and teachers should limit the amount of restrictions imposed on children during play. The more rules, the less the children feel they are playing and the more they feel they are doing what someone else is telling them to do; which are not really play to them. Few rules are really needed.

Parents and teachers should try and make the play ideas simple and safe. The play ground and play materials should be safe enough for the children to play

with. Parents can create many of these play ideas with materials at home. Examples of play materials that can be created at home include, puzzle and form boards, pounding set, pyramid block toy, house keeping center, doll bed material, stove and unit block for building.

Parents and teachers are expected to know their children, this can be achieved by watching them to find out what they like to do, what they always ask questions about and in what areas of their growth they need more experience. They should get play ideas that focus on those areas. For example, if a child loves animals, look for books and puzzles that talk about animals and show drawings of animals.

They should give children enough time to play and do not use it as a reward for doing a particular activity. Children's play time should be the biggest and most important part of their daily lives. They should not force the children to play if they do not want to because it is no more a play if they are forced; it is more like a chore.

Parents and teachers should give their children many different ways of playing. There are many play areas that one can involve children in, such as stories and looking at books, arts and crafts, music and singing, sand, play-dough, and water play, imaginary play, learning games and out door play. The greater the variety of ways a child plays the easier and faster he/she develops socially.

Parents should purchase only play materials that are suitable, safe and appropriate to the age, sex and likes of their children, so as to enable the children have an effective and sound social development.

To the Proprietors:

Remuneration, good salary, job satisfaction of teachers and workers in schools should be enhanced and regularly reviewed with full monitoring by the proprietors so as to boost their morale in discharging their duties and thereby in turn giving the right instructions to the pre-school children, which will enable them effectively develop socially.

Safe, adequate and appropriate play materials and facilities should be provided to the pre-school children by the proprietors of these schools so as to enhance their rapid social development.

Well trained and dedicated teachers should be employed by the proprietors and regular supervision of teachers and school facilities should be carried out by the proprietors of these schools.

Seminars, workshops, training and retraining of teachers in the area of child development should be organized regularly for the teachers as a way of updating them with useful knowledge in the area of pre-school child education.

Adequate number of qualified and dedicated teachers should be employed and engaged in teaching this group of children. This is very important because this

period serves as the child's foundation and what ever is taught to the child at this age, forms or determines what or who that child will become in future. This can be achieved with regular checking of these schools by Educational Resource Centres or Ministry as the case may be.

To the Government:

The government should supervise and monitor the schools to see that they are of high standard with all the necessary facilities. They should only approve schools that have adequate facilities that can develop the children not only academically but also socially.

Government should enact law on the essential provision or availability of such items like the play space and materials. Any proprietor that does not comply with this law should not be allowed to run the school.

The Government should create awareness through educational workshops in various schools and information through channels such as radio, television, newspaper, and posters, on the importance of play and play materials on the social development of the pre-school children.

To the Society and Non- Governmental Organizations (NGOs):

The NGOs can assist in financing or donating some play materials to schools. Educational stake holders which comprise the pre-school children, the teachers, the proprietors, parents/guardians, Government, NGOs and the general

public have roles to play in order to correct some of the anomalies discussed above. Lastly, every body should be a partaker in seeing that the pre-school children who are the leaders of tomorrow are properly equipped and taught well in their schools in order to enhance their rapid social development.

5.4 Limitations of the study

The researcher used observation method as an instrument in collecting data for the study. The major limitation observed was in the area of observing the pre-school children. The researcher had to spend two weeks studying the children, teaching them and daily calling their class attendance register so as to get familiar with each child before carrying out the actual observation. This constituted delay of the work. Another major constraint the researcher faced during the study was difficult protocol in obtaining clearance for the observation. The researcher had to make several trips to the schools before obtaining full permission for the study.

5.5 Educational Implication

If the purpose of play and play materials are to develop and transmit desirable and positive social norms to children, with the view of minimizing anti-social behaviours and raising children that are socially disciplined and of good morals standard, then the result of this study will be of enormous importance to the children, parents, teachers, proprietors, curriculum planners, the society and the

Government. The result of this study will also serve as a guide to Home Economics curriculum planners and teachers when reviewing the curriculum.

5.6 Suggestions for further study

The following areas are recommended for further research study:

1. Effect of play and play materials on the socio-emotional development of the pre-school children.
2. The role of play and play materials on the development and learning ability of the pre-school children.
3. Effect of play and play materials on the development of creativity among pre-school children
4. The role of play and play materials in promoting healthy child development and maintaining strong parent-child bonds.

REFERENCES

A guide to the business of baby sitting (2007). University of Illinois Extension. http://www.urbanext.uiuc.edu//babysitting/agepreschool.html Retrieved 22/9/2007

Akuezuilo, O.E and Agu, N (2003) *Research and Statistics: In Education and Social Sciences.* Nuel Central Publishers and Academic Press Ltd, Awka Nigeria Pp 87,103, 108.

Alliance for Childhood, (2002). Children from birth to five: A statement of first principles on early education for educators and policy makers http://www.allianceforchildhood.com/projects/play/index.htrn.Retrieved 28/5/2007.

Almon, J. (2002). The Vital Role of play in Early Childhood Education. www.allianceforchildhood.org.uk|...*l?tx*.ttnews%5Bbackpid%5D=27&cHa sh=b44 11 04325. Retrieved 28/5/2007.

American Academy of Pediatrics (2006). Council on Sports Medicine and Fitness and Council on School Health. Active health living: prevention of childhood obesity through increased physical activity. *Pediatrics:* Ppl17:1834-1842

Asika, N. (2004). *Research methodology in behavioural science.* Longman Nigeria PIc. Lagos Nigeria. p27.

Association for Childhood Education International (2002). http://www.acei.org/playpaper.htm Retrieved 28/5/2007

Band, E.B., WPeisz, J.R. (1988). *How to feel better when it feels bad: Children's perspective on coping with everyday stress.* Dev. Psycho. 24:Pp247-253.

Barnardos, W. (2002) Child Development. http://www.bamardos.ie/usefiles/file/childdevelopment info pack. Retrieved 28/5/2007.

Bello, R. and Ajayi, O.O.S. (2000). *Research Methods and Statistical Analyses.* Haytee Press and Publishing Company Limited, Ilorin.p21

Bergen D. & Mauer D. (2000) *Symbolic play. Phonological awareness, and literacy skill at three age levels In:* Kathleen A.R & James F.C. (Eds). *Play and literacy in early childhood: Research from multiple perspectives.* New York. Pp. 45-62.

Bergen. D (2002). The Role of pretend play in children's cognitive development. http://www.ECEP/spring2002/roleofpretendplay.com.htm Retrieved 2/9/2008

Bronson, M. (1995). *The right stuff for children birth to* 8. Washington, D.C. National Association for the Education of Young People.

Brooks D. (2004) *On Paradise Drive: How we live now (and always have) in the future Tense*. New York. Simon & Schuster. Pp 142-143

Brown, P., Sutterby, J. and Thornton (2007). PTO Today Magazine Article Archives. Dramatic Play in Outdoor Play Environment. http://www.Dramaticplay%20utdoor%l20Environment.htm. Retrieved 4/10/2007.

Burdette, H.L. and Whitaker, R.C. (2005). Resurrecting Free Play in Young Children: Looking beyond fitness and fatness to attention, affiliation and affect. *Arch Pediatric Adolesc Med. 159:46-50*

Chawla, L. (1994). Children's Concern for the Natural Environment, Children's Environments. http://www.chawla.com/children/articles/naturaleviron.html.Retrieved 28/5/2007

Christie, N. (2001). Play: Essential for All Children. A position paper of the Association for Childhood Education International. http://www.acei.org/playpaper.htm. Retrieved 28/5/2007

Cochran, W.G (1977) *Sampling techniques*. 3rd ed. New York: 10hn Wiley and Sons.p82

Cohn, D.A. (1990). Child-mother attachment of six-year olds and social competence at school. *Child Development* 61: 152-162.

Colson, R.E. (2006). Social and Emotional Development of Pre-school Children. http://www.com/mmhe/sec23/ch268/ch268d.html Retrieved 1/3/2008

Connoly, J.A. and Doyle, A.B. (1994). Relation of Social Fantasy Play to Social Competence in Pre-schoolers. *Developmental Psychology* 20:Pp797-806.

Coolahan, K., Fantuzzo J. Mendez., McDermott, P. (2000). *Pre-School peer interactions and readiness to learn:* relationships between classroom peer play and learning behaviours and conduct. *Journal of Educational Psychology* 92:Pp458-465.

Curry, N. and Arnaur, S. (1982). *Dramatic Play as a Degenerative Aid in the Pre-school. In:* Frank, M. (Ed.). *The Puzzling Child.* New York: Haworth. Pp 37-48.

Dacey, S.J. and Travers, F.J. (2002). *Human Development Across the life span.* Fifth Edition. New York. McGraw Hill. Pp 86, 289-305.

David Elkind (1989). *The Hurried Child.* Reading. Mass: Addison-Wesley Publishing Company Inc. Canada.p58

Dillon, S. (2006). *Schools cut back subjects to push reading and matter.* New York. p334

Elkind D. (2001) *The hurried child: Growing up too fast too soon.* 3rd Ed. Cambridge, MA: Perseus. Pp.34-46.

Ellis, M.J. (1983). *Why People Play.* Engle Wood Cliffs. N.J. Prentice-Hall, Inc. p35

Erickson, E. (1983). *Childhood and Society.* 2nd ed. New York, Norton. p421

Erickson, R.J. (1985). *Play* contributes to the full emotional development of the child. *Education* 105:Pp261-263.

Fantuzzo, J. and McWayne, C. (2002). The relationships between peer play interactions in the family context and dimensions of school readiness for low-income pre-school children. *Journal of Educational Psychology* 94:Pp79-87

Fantuzzo J, Sekino Y, Cohen HL. (2004). An examination of the contributions of interactive peer play salient classroom competencies for urban head start children. *Psycho- schl.* Vol. 41. Pp.323-336

Fisher, E.P. (1992). The impact of play on development: A mete-analysis. *Play and Culture.* 5: Pp 159-181. Retrieved 4/10/2007

Frost, J.L. (1992). *Play and Plays capes.* Delmar Publishers Inc. New York.p45

Frost, J.L., Wortham, S. and Reifel, S. (2001). *Play and Child Development.* Upper saddle River, NJ: Merrill Prentice Hall.

Frost, J.L. (2006). Neuroscience, Play and Brain Development. Paper presented at: IP A/USA Trienniel National Conference; Longmont, Co. www.eric.ed.gov/ERICDOCS/data/ericdocs2/content storage 01 /0000000b/ 80/ll/56/d6.pdf. Retrieved 22/9/2007

Gardner, H. (1993). *Frames of mind. The theory of multiple intelligence.* New York, Basic Books. p904

Gay, L.R and Diehl, P.L. (1992) Research methods for Business and Management. http://www.emoderators.com/ipct-j/1998/nz-4/hill.html. Retrieved 6/9/2008

General Surgeon (2001). Summary of Conference on Children's Mental Health. Department of Health and Human Services. http://www.surgeongeneral.gov/topics/emh/ children Retrieved 28/5/2007

Ginsburg, R.K. (2007). The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds. Clinical Report. Pediatrics Vol.l19No.l January 2007. Pp 182-191 (doi: 10-1542/peds 20062697). http/://aappolicy.aapublications.org/cg./ content/f. Retrieved 22/9/2007

Gmitrova, V. and Gmitriv, G. (2002) Research report: The impact of teacher directed and child directed pretend play on cognitive competence in kindergarten children. http/ /www .standards.dfes.gov .uk/research/themes/ early years/friAp r21051132004/htm. Retrieved 1/3/2008.

Goleman, D. (1995). *Emotional Intelligence.* New York: Bantam. p76

Gutierrez, D. and Bos, B. (2007) play and creativity/why play is important. http://www.place of our own.net/question_detail.php?Id=398. Retrieved 1/3/2008.

Hardy, D.F., Power, T.G. and Jaedicke, S. (1993). *Examining the relation of parenting to children's coping with everyday stress, Child Dev.* 64: 1829-1841

Harris, L. (1990) Looks by preschoolers at the experimenter in a choice-of-toys game: Effects of experimenter and age of child. *J.exp. child Psycho.* 6:493-500.

Hart, A.R. (1999) *Tutored by great outdoors at a southern pines playground.* New York. New York Times.

Henry, M. (1990). *More than just play:* the significance of mutually directed adult, child activity. *Early Child Development Care* 60:Pp35-51

Hildebrand, V. (1997). *Parenting: Reward and Responsibilities.* Fifth Edition. New York. McGraw Hill. Pp 380-394.

Hornby, A.S. (2000) Oxford Advance Learner's Dictionary of Current English. Sixth edition. University Press. p1107

Hughes, F.P., Noppe, L.D. and Noppe, I.C. (1988). *Child Development.* St. Paul, MN: West Publishing Company. Canada. p732

Hurlock, E.B. (1981). *Child Development.* 6th Edition. McGraw-Hill International Books Company. London. p673

Huxley, R. (1996). Understanding Preschool Child Development. Parenting Toolbox Community. http://www.atozkidstuff.com/article10.html.Retrieved 1/3/2008

Ike, E. (2007). *Improvised Toys: Improving both Child Development and Family Economy.* Nigerian Journal of Home Economics Vol.1 No.1 Nigeria p92

Isenberg, P.J. and Quisenbery, N. (2002). Play: Essential for All Children. A Position Paper of the Association for Childhood Education International. http://www.acei.org/playpaper.htm. Retrieved 28/5/2007

Kaduna State Private Schools Board (2007). General Statistics of Nursery Schools per Local Government Area of Kaduna State. 5pp

Kaduson, H.G. and Schaefer, C.E. (2000). Short term play therapy for children. New York, Guiford Press. p80

Kostelnik, J.M., Stein, C.L., Whiren, P.A. and Sodernman, K.A. (1998). *Guiding Children's Social Development.* Delmar - United States.

Krafft, K.C. and Berk, L. E. (1998) Private speech in two pre-schools: significance of open-ended activities and make-believe play for verbal self-regulation. *Early childhood Research Quarterly*: 13 (4), 637-658

Kraus, R. (1990). *Recreation and Leisure in Modern Society.* Fourth Edition. New York, NY: Harper Collins College.

Kuo, F. (2003). Book review of children and nature: psychological, sociocultural, evolutionary investigations children, youth and environments 13(1) cyce Colorado.edu:8080/CYE 10m/BookReviewslBookReview 49. Retrieved 28/5/2007

Kytta, M. (2004). The extend of children's independent mobility and the number of actualized affordances as criteria for child-friendly environments. *Journal of Environmental Psychology* 24 (2) Pp. 179-198.

Ladd, G.W. (1990). Having friends, and being liked by peers in the classroom: predictors of children's early school adjustment. *Child Div.* Pp. 1081-1100

Landreth, G.L. (1991). Play Therapy: The art of the Relationship. Levittown, P.A. Accelerated Development. http://www.dramatic%20play%20in%20outdoor%20play%20Environments.htm Retrieved 4/1 0/2007.

MacDonald, K.B. (1993). *Parent-Child Play:* Descriptions and Implications. Albany, NY: State University of New York Press.

Malley, C. (2002). Preschooler Development. http://www .nncc.orgl child .Dev /pre .dev .html. Retrieved 1/3/2008

Marcon, R.A. (2002). Moving up the grades: Relationship between preschool Model and Later School Success. In: Early Childhood Research and Practice. Vol.4No.1. www.allianceforchildhood.org.uk/.../?tx_ttnews%5Bbackpid%5D=27&cHash=b441104325.Retrieved 28/5/2007

McVeigh, R. and Duchan, A. (2003). Toy box. Early year's development through play for traveller's children. http://www .nncc.orgl child .Dev /pre .dev .html. Retrieved 1/3/2008

MCWayne, C.M, Fantuzzo, J.W, and McDermott, P.A (2004). Pre-school competency in context: an investigation of the unique contribution of child competencies to early academic success. *Dev psycho* 40: Pp 633-645.

Microsoft Encarta (2008). Toy and child development

Minnet. P. (2000). *Childcare and Development.* 3rd edition. London. John Murray (publishers) Ltd. Pp. 143-144; 173-179

Moore, R. and Wong, H. (1997). *Natural learning: Rediscovering Nature's way teaching*: Berkeley, CA MIG communications.

Moore, R. & Wong, H. (2000). Natural learning: Rediscovering Nature's way of teaching. Berkeley, CAMIG communications. Paper presented at conference on people, land and sustainability: A global view of community gardening, university of Nottingham, UK, (September 2000).www.naturalearning.org/earth,boundpaper.html. Retrieved 6/12/2004

Moore, R. (2004). Countering children's sedentary lifestyles by design. Nature learning initiative. From www.naturalearning.org. Retrieved 6/12/2004

Muhkerjee, A. (1980). *Educational Psychology*. Calcutta K.P. Bassu Publishing Company Pp 45.

National Network for Child Care (2004). Readiness for Kindergarten: Parents and Teacher Beliefs. http://www.educationworld.com/acurr/curr027.shtml.Retrieved 29/2/2007

National PTA (2006). Recess is at risk; new campaign comes to the rescue. www.pta.orglne press release detail 1142028998890.html. Retrieved 22/9/2007

National Literacy Trust (2007). Developing Language for Life. The Importance of Play in Children's Development. File://E:/The%20importance%200fOJ020play%20in%20children's%de velop ment.htm. Retrieved 10/4/2007

Ohanian, S. (2002). *what happened to recess and why are our children struggling in kindergarten.* New York: McGraw Hill, p.11

Olaitan, O.S. and Akpan, E.A. (2003). *Childhood Development and Family Life Education.* League of Researchers in Nigeria (LRN). Pp 201-202.

Olsen, E.A. and Sumsion, J. (2000). Early Childhood Teacher Practices Regarding the Use of Dramatic Play in K-2 Classroom. Macquarie University. http://www.care.eduau/00pap/0/5005/3.htm Retrieved 22/9/2007

Ononuju, N.J. (2004). *The Family and Parenting in Nigeria's Social Development.* 2nd Edition. Polly Amadis Publication, Madumere street, Nigeria.

Paley, V.G. (1988). *Bad guys don't have birthdays: Fantasy play at four.* Chicago. University of Chicago Press.

Papalia, E.D, Olds, W.S. and Feldman, D.R. (2004). *A child's world infancy through Adolescence.* New York. McGraw Hill. Pp 275-276.

Pellegrini, A.D., Smith, P .K. (1998). The development of play during childhood: Forms and possible functions. *Child Psychology Psychiatry 3:51-57.*

Pellegrini, A.D., Bohn, C.M. (2005). The role of recess in children's cognitive performance and school adjustment. *Educ. Res.* 34:Pp13-19.

Peters, Z. (2006). Support social and emotional development-Through play. http//www.education.com/magazine/article/supportDevelopment Retrieved 1 /3/2008

Piaget, J. (1983). Piaget's theory. *In* Mussen, P.H. *Hand book of child psychology:* Vol.1 History, theory, methods. New York: Wiley.

Pyle, R. (2002) *Eden in a vacant lot: special places, species and kids in community life. In* Kahn, P.H. & Kellert, S.R. *Children and Nature: Psychological, sociocultural Evolutionary investigations*. (eds) Cambridge: MIT press.

Raver, C.C., Zigler, E.F. (1997). Social Competence: an untapped dimension in evaluating Head Starts' success. *Early Child Res* Q. 12: Pp363-385.

Rivkin, M.S (1990) *The great outdoors: Restoring children's Rights to play outside*. National Association for the Education of young children. Washington DC.

Roscoe, J. T. (1975). *Fundamental Research Statistics for the Behavioural Sciences.2nd* edition. New York: Holt Rinehart and Winston.

Rosenfeld, A.A. and Wise, N. (2000). *The over-scheduled child: Avoiding the Hyper-Parenting Trap*. St. Martin's Griffin. New York.

Rowlands, F. (1997). The Value of Play. www.cfc_cfc.ca/docs/cccf/00003en.htm. Retrieved 28/5/2007

Santrock, W.J. (1996). *Child Development.* Dubuque, IA Brown and Benchmark Publishers.

Schweinhard, L.J. and Weidart, D.P. (2000). High/Scope summary. Different effects from different pre-school models: High/Scope pre- school. http://www.acei.org/playpaper.htm. Retrieved 28/5/2007

Seefeldt, V. and Haubenstrick, J. (1982). "Patterns, Phases or Stages: An Analytical Model for the Study of Developmental Movement". John Wiley and Sons, Inc. New York. http://www.highscope.orglResearch/curricomp.htm.Retrieved 28/5/2007.

Shonkoff, J.P. and Phillips, D.A. (2000). *From Neurons to Neighbourhoods: The Science of Early Childhood Development*. National Academy Press. Washington, DC.

Slavin, R.E. (1988). *Educational Psychology: Theory into Practice*. Englewood Cliffs. New Jersey Prentice Hall.

Smilansky, S. (1980). *The effects of socio-dramatic play on disadvantaged preschool children.* John Wiley. New York.

Smilansky, S. and Shefatya, L. (1990). *Facilitating play: A medium for promoting cognitive, socio-emotional and academic development in young children*. Silver Spring, Maryland: Psychosocial and Educational Publications.

Smith, D. (1995). How play influences children's development at home and school. *Journal o/Phys. Edu. Recreation Dance 66:19-23.*

Stambak, M. and Sinclair, H. (1993). *Pretend play among 3-year olds.* Hillsdale, NJ: Erbaum.

Syvensky, S. (1996). *Child's Play?* It is more important to your child than you realize. Retrieved 4/10/2007

Tamis-LeMonda, C.S. Shannon, J.D., Cabrera, N.J., Lamb, M.E. (2004). Father and Mother at play with their 2 and3-year-olds: Contribution to Language and Cognitive development. *Child Development* 75:Pp1806-1820.

The No Child Left Behind act of 2001 (2006). Executive Summary Available at: www.ed.gov/ncl/overview/intro/execsumm.pdf. Retrieved 22/9/2007

The Toy Manufacturers of America (2000). Guide to Toys and Play. One of the most important things a child can do is play. http://www.kidsource.com/kidsource/content/toys ply.html. Retrieved 28/5/2007

The New Webster's Dictionary of the English Language (1997) International Edition. New York Lexicon international.

Tsao, L. (2002). How do we know about the importance of play in child development? *Child Educ.* 78:Pp230-233.

Vincent, I. (2005) Preschoolers child development. http://pediatrics.about.comlcs/grouthdevelopment/a/childdev5.htm Retrieved 1/3/2008

Vukelich, C. (1994). Effect of play intervention on young children's reading of environmental print. *Early Childhood Research Quarterly* 9(2), 153-170.

Vygotsky, L. (1998). *Mind in Society.* Cambridge, MA: Harvard University Press.

Watson, M. (1995). *The relation between anxiety and pretend play: In* Slade, A. and Wolf, D. (eds). *Children at play.* New York, Oxford University Press.

Wehlage, N. (1990). *Goals for Living: Managing Your Resources.* The GoodheartWillcox Company, Inc. South Holland, Illinois. Pp 186-197.

Wentzel, K.R. (1999). Socio-emotional processes and interpersonal relationship: implications for understanding motivation at school. *J. Educ psychol.Pp76-97*

White, R. and Stoecklin, V. (1998). Children's outdoor play and Learning Environments: Returning to nature. www.Whitehutchinson.com/children/ articles/outdoor.shtml. Retrieved 6/11/2007

White, R. (2004). Young Children's Relationship with Nature: Its Importance to children's Development and the Earth's Future. http://www.whitehutchinson.com/children/articles/ out-door .shtml Retrieved 28/5/2007.

Wilson, R.A. (2000). *Outdoor experiences for young children* (Eric Digest) Eric clearinghouse (Eric identifier ED448013)

Winsler, A. and Diaz, R.M. (1995). Private Speech in the Classroom: The Effects of activity type, presence of others, classroom context, and mixed-age grouping. *International journal of Behavioural Development* 18(3), 463-487.

Zins, J.E. (2004). *Building Academic Success on Social-Emotional Learning. What does the research say?* New York, NY: Teachers college press. p376

APPENDIX 1

SECTION A

SCORE CARDS FOR ASSESSING THE SOCIAL DEVELOPMENT OF PRE-SCHOOL CHILDREN IN KADUNA METROPOLIS

NAME: _____

AGE: _____

CLASS: _____

INDICES	EXPRESSION	SCORES
GENEROSITY	-Willingness to share -Willingness to help -Compassionate -Caring -Selfishness	
	SUB-TOTAL	
SYMPATHY	-By helping -Protecting/defending others -Reporting the situation to an Adult or another child -By pats or hugs -Asking question to find the cause of distress	
	SUB-TOTAL	
FRIENDLINESS	-Hugging -By trying to protect -By comforting -By wanting to be with the person -I want to go with you	
	SUB-TOTAL	
RAPID SPEECH DEVELOPMENT	-What is your name -Where do you live -You are my friend -I want to go with you -Buy this or that for me	
	SUB-TOTAL	

COOPERATIVE PLAY	-Likes to pretend -Plays simple games -Learns to fit into the group -Learns to contribute -Selfishlessness
	SUB-TOTAL
DESIRE FOR SOCIAL APPROVAL	-Likes to be noticed -Needs for attention -Desires to impress others He/she asks questions -Makes urgent request for help
	SUB-TOTAL
NEGATIVISM	-Physical tenseness -Pretending not to hear -Stubbornness -Walking away -Hiding when called
	SUB-TOTAL
ATTENTION SEEKING	-Making lots of noise -Coughing -Refusing to eat -Having temper tantrums -Passing urine in the wrong place at the wrong time
	SUB-TOTAL
QUARRELLING	-Destroying another child's work -Taking away his toy -Screaming -Crying -Biting
	SUB-TOTAL
DEPENDENCY	-Highly suggestible -Easily influence -Seeks attention -Frantic asking for help -Excessive asking questions
	SUB-TOTAL
TOTAL	

SECTION B

1. Types of free play engaged by pre-school children

TYPES OF PLAY	PLAY ACTIVITY	SCORES
SOCIAL PLAY	- Seeks and hides game - Singing/Rhymes - Ten-ten - Electronic game - Fire on the mountain	
	SUB-TOTAL	
PHYSICAL PLA Y	- Running - Dancing - Climbing - Jumping - Throwing a ball/Stone	
	SUB-TOTAL	
CREATIVE PLA Y	- Drawing - Painting - Modeling - Music - Dance	
	SUB-TOTAL	
IMAGINATIVE/DRAMATIC PLAY	**(Mimicking/Drama)** - Cooking (sand) - Music - Dance - Dress - Talk	
	SUB-TOTAL '	
EXPLORATORY PLAY	- Scanning the environment - Smelling the objects - Mouthing - Shaking objects - By squeezing or pounding an object	
TOTAL		

SECTION C

2. Kinds of play materials available in the school Tick (√)

a. Dolls [ ]
b. Soft toys [ ]
c. Pictures [ ]
d. Drawing materials [ ]
e. Painting materials [ ]
f. Puzzle [ ]
g. Sand [ ]
h. Water [ ]
i. Climbing frames [ ]
J. Balls [ ]
k. Tricycles [ ]
l. Jigsaws. [ ]
m. Bells [ ]
n. Cymbals [ ]
o. Triangles [ ]
p. Drum [ ]
q. Building blocks [ ]
r. Constructions toys [ ]

3. How often do the children play? Tick (√)

a Once a week [ ]
b. Twice a week [ ]
c. Thrice a week [ ]
d. Every day [ ]
e. After every one hour [ ]
f. After every two hours [ ]
g. No time for play [ ]

OR

How often do they watch television? Tick (√)

a. Once a week [ ]

b. Twice a week [ ]

c. Thrice a week [ ]

d. Every day [ ]

e. After every one hour [ ]

f. After every two hours [ ]

g. No time for watching television [ ]

*100 items (50 from section A and 25 each from section B and C) are available for scoring each child. Each point scored attracts one (1) mark.

*Each child's total score that is less than 50% is considered as negative social development while total score that is 50% and above is considered as positive social development.

APPENDIX II

REGISTERED PRE- SCHOOLS IN KADUNA METROPOLIS

S/No	NAMES OF SCHOOLS	LOCATIONS	No OF CHILDREN PER SCHOOL
1	Ivy Nur/Pri/Jss School	Kigo Rd	89
2	Alphine N/P School	No.38-41 Suleiman Street Dili	46
3	Marvellous N/P School		65
4	St Michael Cathedral N/P	No. 53, Ibrahim Taiwo Rd.	157
5	Amfana N/P Islamic Sch	Kaduna	82
6	Artek N/P Sch	No.5 Dallaji Rd	55
7	Ladela N/P Sch	No. 8 Kabala Close	33
8	Child Height Int Sch	No.16 Capitain Road	40
9	An-Nur Int.	No.50B, Yakubu Avenue	61
10	Parent Pride N/P Sch	No. 16, Rock Rd U/Dosa	80
11	1st Ecwa Nur/Pri Gwari Road	Gwari Road	53
12	St. Paul Catholic N/P Sch	No. 2AB.Jan Street	75
13	Adeyemo Prof.Tution Center	Ahmadu Bello Way	64
14	Grace Baptis. N/P Sch.	Abubakar Kigo Road	76
15	Unity Int.Sch.Day Care/N/P	No. 20 Kinshasa/Fulani Rd	45
16	Chrisdom N/P Sch.	AG24c, Kigo new Ext.K/N	19
17	Albarka N/P Sch.	No.15 Benin street	84
18	Hampos Private School	Abdulkadir close U/Rimi	78
19	Malali Int Sch.	Ninzo Close	71
20	Kings And Queens Sch.	Kajuru Str.kabala	22
21	Daily Guide Sch.		69
22	Barkindo N/P	2/3 Zakaria Rd Kwaru	100
23	Focus Academy	J3, EdoStr. Kabala	102
24	Blessed Academy N/P	No.29 Mariri Close	78
25	Solid Foundation Sch.	No.14 Kachia Str.	87
26	The Glory Int Sch.		72
27	Bethel Int Sch.	Kabala West	44
28	Seat Of Knowledge Model	IBBI Rd Alagado	58
29	Prudence Int.	Federal Housing Estate	35
30	Unique N/P Sch Marafa	Ibrahim Biu Crescent	56
31	Nawair-UD Deen Model Sch	No.1° Benin/Zaria Rd	43
32	Hampos Int.Sch	Ungwan Rimi	200
33	Amina Memorial N/P	Zaria Rd	241
34	Winners Comprehensive	Saidu Labo Rd U/Rimi	122
35	Duniya N/P/JNR	Ribbon Crescent Panteka Poly Quarters	178
36	Covenant N/P/JSS	Gabasawa St.off FRCN QTRS.Malali	107
37	Marafa Comprehensive N/P	No. 30 Borno Rd M/Estate	53
38	Uncle Bado Memorial	Nagwamatse Rd Kd	74

39	Ansar-ud-deen N/P	No.FF9, Bida Road	192
40	Start Right Int. N/P	No.9 kufenaRd	27
41	Legacy Sch. N/P	MukhtarMohd Rd U/Rimi G.R.A	112
42	Juniors Int. Sch.	Danmadarni Close	99
43	Future Leaders Int. Sch	Chad Crescent Malali	150
44	Madrastul H Islamic	No.38 Main Rd Badarawa	98
45	Dariq Int. Sch.	Ghana Rd Malail	60
46	Victory Model Sch.	No. 10 Makama St.	202
47	Yoma N/P	No.6,Ramah Close	28
48	Al-Amanah Academy	No. 1B Rock Rd.	65
49	Redeemers Int. Sch.	No. 11, Deyel 1	133
50	Al-Madina Islamic Sch.	DD4, Ramat Close	130
51	Rimi Int. Sch.	Conakry Crescent	86
52	Risigstars Int. Sch.	Umaru Gwandu Rd	22
53	Turaki Int. Sch.	No. 21 Raba Rd	26
54	Steve Best	No. 2 Ramat Rd	92
55	St Monica's N/P School	Malali	63
56	Evan Mary Unimi	Church Comp. A/Kigo Rd	37
57	Samu Model Academy	No. 40, Liberia Rd Malali	35
58	ECWA Children Sch.	Bala Lane U/Rimi	62
59	Mascot Academy	Murtala Mohm Way	67
60	Top tay school	Daura Road	71
61	Honey Field Int.sch.N/P	No.13 New Dawaki Rd	85
62	Albarka N/P	No.15 Benin Street	84
63	FACM N/P/SEC	Ilori/Kano Rd	85
64	Methodist Church N/P	Constitution Rd	54

APPENDIX III

Comparative Summary of Social indices/expressions of experimental and control Groups of pre-school children in Kaduna Metropolis

INDICES / EXPRESSION	RESPONDENTS			
	Experimental Group		Control Group	
GENEROSITY	**Positive**	**Negative**	**Negative**	**Positive**
- Willingness to share	26 (86.7)	4 (13.3)	17 (56.7)	13 (43.3)
- Willingness to help	30 (100.0)	0 (0.0)	8 (26.7)	22 (73.3)
-Compassionate	29 (96.7)	1 (3. 3)	1 (3. 3)	29 (96.7)
-Caring	30 (100.0)	0 (0. 0)	13 (43.3)	17 (56.7)
-Selfishness	8 (26.7)	22 (73.3)	14 (46.7)	16 (53.3)
SYMPATHY				
-By helping	29 (96.7)	1 (3. 3)	13 (43. 3)	17 (56.7)
-Protecting/defending others	30 (100.0)	0 (0. 0)	10 (33. 3)	20 (66.7)
-Reporting the situation to an adult or another child	30 (100.0)	0 (0. 0)	15 (50. 0)	15 (50.0)
-By pats or hugs	24 (80.0)	6 (20.0)	4 (13. 3)	26 (86.7)
-Asking question to find the the cause of distress	29 (96.7)	1 (3. 3)	5 (16.7)	25 (83.5)
FRIENDLINESS				
-Hugging	28 (93.3)	2 (6. 7)	6 (20.0)	24 (80.0)
-By trying to protect	30 (100.0)	0 (0. 0)	11 (36.7)	19 (63.3)
-By comforting	29 (96.7)	1 (3. 3)	8 (26.7)	22 (73.3)
-By wanting to be with the Person	30 (100.0)	0 (0. 0)	10 (33. 3)	20 (66.7)
-I want to go with you	25 (83.3)	5 (16.7)	1 (3. 3)	29 (96.7)
RAPID SPEECH DEVELOPMENT				
- What is your name	28 (93.3)	2 (6. 7)	12 (40.0)	18 (60.0)
- Where do you live	23 (76.7)	7 (23. 3)	2 (6.7)	28 (93.3)
-You are my friend	29 (96.7)	1 (3. 3)	10 (33.3)	20 (66.7)
- I want to go with you	30 (100.0)	0 (0. 0)	9 (30.0)	21 (30.0)
-Buy this or that for me	26 (86.7)	4 (13. 3)	7 (23.3)	23 (76.7)
COOPERATIVE PLAY				
-Likes to pretend	24 (80 0)	6 (20. 0)	6 (20.0)	24 (80.0)
-Plays simple games	30 (100.0)	0 (0. 0)	22 (73.3)	8 (26.7)
-Learns to fit into the group	30 (100.0)	0 (0. 0)	13 (43.3)	17 (56.7)
-Learns to contribute	30 (100.0)	0 (0. 0)	5 (16.7)	25 (83.3)
-Selflessness	29 (96.7)	1 (3. 3)	2 (6.7)	28 (93.3)
DESIRE FOR SOCIAL APPROVAL				
-Likes to be noticed	16 (53.3)	14 (46. 7)	7 (23.3)	23 (76.7)
-Needs for attention	12 (40.0)	18 (60. 0)	16 (53.3)	14 (46.7)
-Desires to impress others	12 (40.0)	18 (60. 0)	10 (33.3)	20 (66.7)
-He/she asks questions	23 (76.7)	7 (23. 3)	1 (3.3)	29 (96.7)
-Makes urgent request for help	29 (96.7)	1 (3. 3)	5 (16.7)	25(83.3)

NEGATIVISM				
-Physical tenseness	1 (3.3)	29 (96. 7)	23 (76.7)	7 (23.2)
-*Pretending not to hear*	0 (0.0)	30 (100.0)	30 (100.0)	0 (0.0)
-stubbornness	4 (13.3)	26 (86.7)	17 (56.7)	13 (43.3)
- Walking away	29 (96.7)	1 (3.3)	4 (13.3)	26 (86.7)
-Hiding when called	2 (6.7)	28(93.3)	29 (96.7)	1 (3.3)
ATTENTION SEEKING				
-Making lots of noise	27 (90.0)	3 (10.0)	26 (86.7)	4 (13.3)
-coughing	0 (0.0)	30 (100.0)	22 (73.3)	8 (26.7)
-Refusing to eat	0 (0.0)	30 (100.0)	27 (90.0)	3 (10.0)
-Having temper tantrums	0 (0.0)	30 (100.0)	27 (90.0)	3 (10.0)
-Passing urine in the wrong place at the wrong time	(0.0)	30 (100.0)	23 (76.7)	7 (23.3)
QUARRELING				
. -Destroying another child's work	7 (23.3)	23 (76.7)	25 (83.3)	5 (16.7)
-Taking away his toy	1 (3.3)	29 (96.7)	29 (96.7)	1 (3.3)
-Screaming	0 (0.0)	30 (100.0)	22 (73.3)	8 (26.7)
-Crying	10 (33.3)	20 (66.7)	25 (83.3)	5 (16.7)
-Biting	0 (0.0)	30 (100.0)	20 (66.7)	10 (33.3)
DEPENDENCY				
-Highly suggestible	0 (0.0)	30 (100.0)	21 (70.0)	9 (30.0)
-Easily influence	1 (3.3)	29 (96.7)	26 (86.7)	4 (13.3)
-seeks attention	9 (30.0)	21 (70.0)	29 (96.7)	1 (3.3)
-Asking for help	12 (40.0)	18 (60.0)	28 (93.3)	2 (6.7)
-Asking questions	21 (70.0)	9 (30.0)	26 (86.7)	4 (13.3)

APPENDIX IV

Comparative Summary of Play Types for Experimental and Control groups of the Pre-school Children in Kaduna Metropolis

TYPES OF PLAY	RESPONDENTS			
	Experimental Group		Control Group	
SOCIAL PLAY	Positive	Negative	Positive	Negative
-Seek and hide game	25(83.3)	5(16.7)	11(36.7)	19(63.3)
-Singing/Rhymes	29(96.7)	1(3.3)	24(80.0)	6(20.0)
-Ten-ten	15(50.0)	15(50.0)	4(13.3)	26(86.7)
-Electronic game	15(50.0)	15(50.0)	2(6.7)	28(93.3)
Fire on the mountain	30(100.0)	0(0.0)	23(76.7)	7(23.3)
PHYSICAL PLAY				
-Running	29(96.7)	1(3.3)	21(70.0)	9(30.0)
-Dancing	18(60.0)	12(40.0)	21(70.0)	9(30.0)
-Climbing	29(96.7)	1(3.3)	24(80.0)	6(20.0)
-Jumping	28(93.3)	2(6.7)	20(66.7)	10(33.30
-Throwing	19(63.3)	11(36.7)	15(50.0)	15(50.0)
CREATIVE PLAY				
-Drawing	29(96.7)	1(3.3)	4(13.3)	26(86.7)
-painting	29(96.7)	1(3.3)	3(10.0)	27(90.0)
-Modeling	14(46.7)	16(53.3)	9(30.0)	21(70.0)
-Music	26(86.7)	4(13.3)	15(50.0)	15(50.0)
-Dance	27(90.0)	3(10.0)	12(40.0)	18(60.0)
IMAGINATIVE PLAY				
-Cooking	23(76.7)	7(23.3)	10(33.3)	20(66.7)
-Music	27(90.0)	3(10.0)	8(26.7)	22(73.3)
-Dance	24(80.0)	6(20.0)	12(40.0)	18(60.0)
-Dress	8(26.7)	22(73.3)	8(26.7)	22(73.3)
-Talk	28(93.3)	2(6.7)	23(76.7)	7(23.3)
EXPLORATORY PLAY				
-Scanning the environment	23(76.7)	7(23.3)	16(53.3)	14(46.7)
-Smelling objects	26(86.7)	4(13.3)	16(53.3)	14(46.7)
-Mouthing	18(60.0)	12(40.0)	8(26.7)	22(73.3)
-Shaking objects	27(90.0)	3(10.0)	19(63.3)	11(36.7)
-Squeezing/pounding objects	17(56.7)	13(43.3)	14(46.7)	16(53.3)

* First figures show Frequency and Figures in bracket are percentages

DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION

AHMADU BELLO UNIVERSITY, ZARIA - NIGERIA

FACULTY OF EDUCATION

Telegram: Unibello, Zaria

elephone: 069 - 51755, 50692

ce-Chancellor: Professor Shehu U. Abdullahi, DVM (ABU), Ph.D. (Min), FCVSN, FIMC, mni

ead of Department: Dr. (Mrs.) Aisha Z. Mohammed, HND, B.Ed, M.Ed, MBA, PhD. (ABU)

Ref: M.ED/EDUC/00138/2006-07 Date 14/03/2008

Ref: _____ Date _____

TO WHOM IT MAY CONCERN

TABAT JUMMAI GRACE – M.ED/EDUC/00138/2006-07

This is to confirm that the above mentioned name is a Master student in Home Economics in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria, carrying out a research topic: **The Impact of Play and Play Materials on the Social and Emotional Development of the pre-school child in Kaduna State.**

Please, kindly give her every assistance she may require.

Dr. (Mrs) Aisha Z. Mohammed
HEAD OF DEPARTMENT