PARENTAL BACKGROUND AND THE LEARNING OF CONCEPTS BY 3– 6 YEAR OLD CHILDREN IN PLATEAU STATE

BY

PAKSOHOT, DOROTHY LENGDANG

PG/Ph.D/04/35967

DEPARTMENT OF EDUCATIONAL FOUNDATIONS
UNIVERSITY OF NIGERIA, NSUKKA

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TITLE PAGE

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AUGUST, 2015

CERTIFICATION PAGE

Paksohot, Dorothy Lengdang, a postgraduate student in the Department of Educational Foundations with Registration Number PG/Ph.D/04/35967, has satisfactorily completed the requirements for the degree of Doctor of Philosophy in Educational Psychology. The work embodied in this thesis report is original and has not been submitted in part or full for any other Diploma or Degree of this or any other University.

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Paksohot, Dorothy Lengdang
Candidate

APPROVAL PAGE

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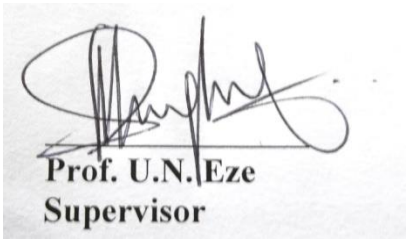
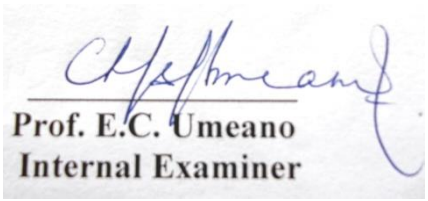
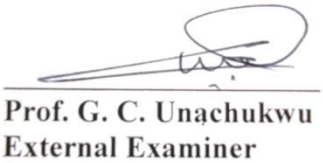
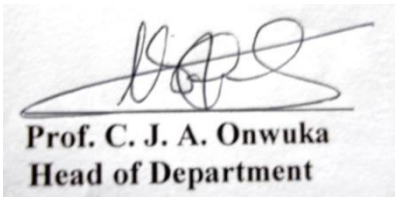
By









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Prof. Uju Umoh
Dean, Faculty of Education

DEDICATION

This work is especially dedicated to my lovely husband, late Dr. Iliya D. Paksohot and to my lovely children ï Plangnan, Noklem, Myaltong and Maksim.

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The researcher is indebted to all those who contributed in various ways to make the production of this work a reality. First among them is Prof. U.N. Eze, the researcherôs supervisor, whose fatherly concern, constant encouragement, invaluable advice and constructive criticisms throughout the period of investigation, brought the work to this final conclusion. Godôs immeasurable reward awaits him and his family. The researcher is also grateful to Prof. C.J. Onwuka, Dr. Madu. , Dr. (Mrs.) J. N. Igbo, who were the chairman, design and content reader respectively during the proposal, for their invaluable contributions to the success of the work.

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God has ultimate power. Special thanks go to Him for all His mercies.

Paksohot, Dorothy Lengdang
University of Nigeria, Nsukka

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ABSTRACT

This study sought to identify the concept learning achievement of children aged 3-6 based on parental background factors in Plateau State, Nigeria. Five research questions and f*ive* null hypotheses guided the study. Ex-post factor or causal comparative research design was adopted. The population of the study consisted of 4003 pre-primary school children in the 60 pre-primary schools in the Northern education zone of Plateau State. A total of 200 pre-primary school children drawn through multistage sampling approach from public and private pre-primary schools in Plateau State were used for the study. Two instruments namely: - Concept learning achievement tests for 3 ï 4 and 5 ï 6 year old children were developed, validated and used for the study. The internal consistency reliability of the instruments were estimated using Kudder-Richardson 20 formula and reliability coefficients of 0.72 and 0.73 were obtained for the concept learning achievement tests for 3 ï 4 and 5 ï 6 year old children, respectively. Data were analyzed using means scores, standard deviations, and multiple regression analysis. The t-test and ANOVA statistics were used to test the hypotheses. Findings indicated that: concept learning achievement of children aged 3-6 differed significantly based on educational status of parents; concept learning achievement of children aged 3-6 differed significantly occupational status of parents; there was significant difference in the concept learning achievement of children aged 3-6 based on housing location; there was significant difference in the concept learning achievement of children aged 3-6 based on parent-child interaction; concept learning achievement of children aged 3-6 did not differ significantly based on gender. A major educational implication of the findings was that parents could show positive attitude towards the education of their children by providing for them, not only in terms of material needs of the children but also allow their children to interact freely with them. It was thus recommended that emphasis should be given to parents providing the material needs of their children and also allowing their children to interact freely with them without gender discrimination.

CHAPTER ONE

INTRODUCTION

Background of the Study

Children learn concepts best when they are given a wide range of experiences with the object and situations that their developing vocabulary expresses. In this early processing of the world around them children aged 3-6 year, who are still at the pre-primary school level, may begin to classify objects and instances, and these classification tasks are essential to concept formation. Munn in Mangal (2011) defined concept as a process which represents the similarities in otherwise diverse objects, situation, or events. Similarly, Ross (2005) said that concepts are patterns, schemas or mental categories which enable people to interpret the objects of their thoughts; whether perceptual or imaginative. One can conclude that concept is a generalized idea about things, persons, or events. It stands for a general class and not for a particular objects or event. It is a common name given on the basis of similarities or commonness found in different objects, persons or events. It is also a mental disposition that helps in understanding the meaning of the objects of peopleôs thinking (Ugoji, 2000).

After looking at some of the characteristics of concepts above, one may easily conclude that a large portion of the words used and other

symbolic expressions in human language represent concepts. The names: horse, tree, dog, table, chair, represent concept of things; father, mother, teacher represent concept of persons; honesty, truthfulness, cleanliness, redness, goodness represent concepts of qualities and characteristics and so on.

Judging the importance of concepts in human lives, one must try to pay due attention to their proper development from a very early age of live. In every sphere of human life, people are very much helped by the identification, classification, categorization and naming of the objects, ideas or events provided by their acquired concepts. Human environment is full of tremendously diverse things. It consists of an infinite number of living and non-living objects. Similarly, there are limitless ideas, thoughts, principles, formulae, theories and so on related to various aspects of human life and the environment. In such an environment of tremendous diversity one can adjust only if one has adequate power and ability to discriminate, classify, and categorize the things around one (in view of their similarities and dissimilarities) in specific groups (Wilson, 1997). Concept learning helps one a lot in this gigantic task of categorizing and classifying the environmental objects. Moreover, the concepts regarding people, objects, places, ideas or events provide human symbolic and verbal behaviour. What

people think, understand, reason and judge is to a great extent controlled by their concepts (Ugoji, 2000). Therefore, they are regarded as an important tool of peopleôs thoughts and expression.

Concepts according to Wilson (1997) are divided into three types which include: Conjunctive concepts, disjunctive concepts and relational concepts. In conjunctive concepts, one may find two or more characteristics or features of an object quite connected or associated with each other. Their connection or association provides a unique identification and meaning to the related concept. One may consider the concepts of a game like football, game of cricket, game of hockey as different examples of conjunctive concepts. Each one of them has its unique identification in terms of a number of well-connected attributes or features in the form of fixed number of players, size and characteristics of a special playing field, the rules of the game, playing equipment and so on.

Disjunctive concepts have several characteristics or attributes present in them. It is not essential for them to maintain a connection or link between the conjunctive concepts. A single attribute or feature may appear in all the objects or items associated with such a concept for providing a unique similarity or commonness contributing in the learning of this concept. For example, the concept ósource of energyô has petrol, kerosene, oil, electricity,

coal, atomic power, sun, wind and water as examples of the sources of energy. They all have one common feature or property, the potential for generating energy. However, they all have their own typical features and attributes which provide them their separate and unique identity. Relational concepts were seen by Wilson (1997) as concepts that could be found in some special and unique relationships between their features or attributes. For example, a family having more girls than boys, boysô hostel, girlsô hostel, developed country, developing country and so on.

The need for concept formation as an important tool of peopleôs thoughts and expression permeates all the school subjects in the social sciences, humanities and the sciences. For students therefore, concept formation is not just for pleasure but to be able to understand information for proper adjustment in the environment (Wolf, 1997)).

Success in school requires that learners form appropriate concepts. However, evidences abound of poor academic performance among all categories of pupils and students in Nigeria and Plateau State in particular. For instance, the achievement of pupils in the transition examination into secondary schools in Plateau State in the past five years (2009-2013) has been declining steadily. A close analysis of the results shows that only 56%, 60%, 52%, 47% and 38% of the pupils passed well enough to be given

admission into secondary schools; while many others were pushed into the junior secondary schools because of the nine year basic education programme in the country. This situation has continued to create concerns in the minds of teachers, parents, curriculum experts and evaluators especially when this trend of poor achievements in different school subjects has subsequently been confirmed by the recent West African Examinations councilsô (WAEC) Chief Examinersô Reports for the years: 2010, 2011, 2012 and 2013. These reports show that studentsô achievements were poor in many subjects. For instance, the West African Examinations Councilsô (WAEC) results of 2010, 20211, 2012 and 2013 indicated that only 24.94%, 30.99%, 25.99 and 29.27%% of the candidates who sat for the examinations obtained five credits including Mathematics and English language, which is the basic requirement for admission into Nigerian universities (WAEC, 2010-2013).

These uninspiring achievements in the primary school transition examination into junior secondary schools and the Senior Secondary School Certificate Examinations (SSCE) are causes for concern. It becomes more worrisome when one considers that the weaknesses of the candidates were traced to inability to read, comprehend and answer the questions correctly. These made candidates to provide answers that were wrong. The problem

was more obvious in comprehension and summary exercises in English Language where they were required to read and draw inferences since the answers were not given. The reports have it that candidates lost a lot of marks as a result of lifting ñseeming answersò from the passage, and that many candidates were yet to come to grips with the skills of comprehension (WAEC, 2012: 86). All these go to a large extent to reveal that concept learning, especially at the early stage of life is a major problem that should be addressed

A number of conferences and workshops have been organized with a view to addressing the problem of poor achievement of children in the pre-primary, primary and secondary schools. As a result, a number of strategies have been recommended for teaching so that students can learn better. These include: Guided teaching method (Dagoli, 1999); Enquiry-Discovery method (Ekpo, 2006); Use of ICT in the classroom (Olorundare, 2006). All these recommended approaches look quite interesting in their theoretical orientation, but evidence shows that the problems are still prevalent, as could be seen from the WAEC (2010 -2013) Chief examinersô reports.

Literature evidence emanating from Western Europe tends to suggest that certain factors like parental background and gender could have the potentials of militating against the learning of concepts, especially at the

early stage of human development. Some of these parental background factors could be educational status of parents, occupational status of parents, housing location and condition, parent-child interaction.

Educational status of parents could mean the level of education acquired by parents, and their level of influence in the learning of concepts by children (Ogunlade, 1997). Educational status of parents may also include the provision of instructional materials in aiding children with regard to learning of concepts. Akpochafo (1999) investigated parentsô education and the effect it has on the childrenôs educational achievement in Benue State. Among the findings is that: educated parents encourage their kids to go to school early; guide them to good school and encourage them on to the best professions. The study also revealed that educated parents give their children financial assistance; help the children with their assignment at home or send them for extra-mural classes; show interest in their school work and take them out on excursion to places of interest.

Similarly, Ogalabu (1997) carried out a comparative study on the academic performance of children in the private fee paying schools with those at the public school. The study reported that the poor performance of children in public school should not always be blamed on the teachers who are always regarded as lazy and inefficient in their jobs. Instead, the

contributions that educated and the rich parents make to the progress of their children should be taken into consideration. One wonders the extent parental educational status would influence the learning of concepts by children aged 3-6 years; who are still at the pre-primary education level, especially in Plateau State with their almajiri system of childrenôs upbringing. It stands to reason that if a parentôs level of education is high, that is an indication that he will be fully involved with the school social system, which will be related to the performance of the child. Such a parent would want to provide the necessary instructional materials such as, toys, books, picture, colours, to mention but few.

Occupational status of parents refers to the kind or type of occupation parents are involved in and the extent occupation of parents can influence or aid a child in the learning of concepts (Dubley, 1999). Parental occupation has been identified as one of the variables affecting childrenôs learning in schools. Most findings seem to support the view that poorly paid parents have difficult time sending and maintaining their children in school, unlike parents with high income who are better equipped. Okunrotifa (1998) carried out a study on the relationship parental occupation and academic performance of children in River State. The study reported that parental income and occupation are the main determinants of the individualôs social

class. The type of occupation which one is engaged determines, to a large extent, his income and his ability to provide fund and other necessary basic facilities for a growing child which will enhance his learning and performance in school. Similarly, Blau and Duncan in Wegener (1999) tested the correlation between sonôs occupational status with fatherôs occupational status. The study found that higher fatherôs occupational prestige could increase educational expectations for the child as well as providing financial resources to support higher education. When a child is ashamed of the parentôs occupation, because of the level of work done or kind of clothes demanded by the work, the child attitude will be adversely affected.

Housing location and condition refers to environment and the condition of that environment (Dubley, 1999). The location could be rural or urban and the condition refers to the availability of social amenities in that environment. In influence of environment on the academic achievement of children was investigated by Martin, Wood and Little (1999). The finding of the study revealed that a child is most influenced by his environment. The individual makes changes in the environment and the environment in turn, produces changes in the individual and his behaviour. Mangal (2010) carried out a study on the relationship between childôs home environment and the

childôs academic achievement. The finding of the study revealed that the childôs home environment is usually important in the formation of cognitive abilities; that is, measured intelligence, his creativity, the manner in which he conducts interpersonal relationship and his level of thinking. The finding went further to show that acquisition and proficiency in learning is made possible by environmental influences. One wonders whether housing location and condition can aid the learning of concepts in children.

Parent-child interaction is the way members of a family, particularly the parents relate to their children and the pattern of interaction could influence or affect the learning of concepts in children (Ogunlade, 1997). Sarah Harkness (1998) studied the role of mothers and siblings in the first language socialization of Kokwestern children in Kipsipis community in Kenya. The finding of the study revealed that children who spent more time talking to adults were linguistically more advanced in relation to their age than their less talkative companions. Parent-child interaction seems to encourage more practice which in turn is associated with faster progress. Durojaiye (1998) also investigated the influence of parent-child interaction on the academic achievement of their children. The finding of the study revealed that parent-child interaction is perhaps most important in the pre-school years where the foundation of attitudes of questioning, curiosity and

investigation is first developed before being carried over to school. He also found out that children who interact very little with their parents and adults use mostly the instrumental and regulatory models of language; they rarely use the imaginative model of language. Okeke (1996) carried out a study on the pattern of interaction in the Nursery Schools children in Anambra State. Results of finding shows that when children get to the nursery school, they become members of a new social group, they meet with different individuals with varying background and race. The findings of the present study may reveal the influence of parent-child interaction on learning of concepts by children aged 3-6, especially when the almariri system in the study area seems to restrict the level of parent-child interaction.

Gender refers to the beliefs that people have about the characteristics and behaviour associated with males and females (Ogunlade, 1997). Children learn at a very early age what it means to be a boy or girl in human society. This stereotype can manifest in learning of concepts through provision of instructional materials; especially when toys, books and other learning materials are bought according to the sex of children. It becomes necessary to find out the extent parental background such as the educational status of parents, occupational status of parents, housing location and condition, parent-child interaction and gender could influence the learning of

concepts of children aged 3-6 years. Since the family is the first agent in the socialization process, it stands to reason that parental background as a factor could have the potentials of influencing the learning of concepts, either positively or negatively especially at the early stage of human development. However, the extent parental background factors could impact on the learning of concepts by children aged 3-6 years in Plateau State needs to be investigated.

Statement of the Problem

Children learn concepts best when they are given a wide range of experiences with the object and situations that their developing vocabulary expresses. In early processing of the world around them children begin to classify objects and instances and these classification tasks are essential to concept formation. The need for concept formation as an important tool of peopleôs thoughts and expression permeates all the school subjects in the social sciences, humanities and the sciences. It is important in academic achievement as it helps students to construct meaning from texts as well as to examine and extend the meaning of the text. Yet the prevailing problem in Plateau State, Nigeria is that the achievements of pupils in the transition examination into secondary schools have been declining steadily. For instance, a close analysis of the results of pupils in the transition

examination into secondary schools in Plateau State in the past five years (2009-2012) shows that only 56%, 60%, 52%, 47% and 38% of the pupils passed well enough to be given admission into secondary schools; while many others were pushed into the junior secondary schools because of the nine year basic education programme in the country. Teachers, parents, curriculum experts and evaluators are worried, especially when the poor achievements have been blamed on inadequate reading comprehension skills, resulting from poor concept formation. It is believed that if the achievements of pupils and students in the transition examination into secondary schools and in the SSSCE remain like this, it will affect both the economic and technological growth of Nigeria. Evidence emanating from Western Europe tends to suggest that parental background as a factor could have the potentials of impacting on the learning of concepts, either positively or negatively especially at the early stage of human development. The extent parental background such as the educational status of parents, occupational status of parents, housing location/condition, parent-child interaction and gender would affect learning of concepts of by different categories of Nigerian children aged 3-6 years who operate in a different socio-cultural environment is yet to be determined. Pre-primary education is

the foundational level of all education and also the learning of concepts is the foundational unit of all types of learning.

Therefore, the problem of this study put in a question form is: what is the concept learning achievement of children aged 3-6 based on parental background factors such as the educational status of parents, occupational status of parents, housing location/condition, parent-child interaction and gender in Plateau State?

Purpose of the Study

The main purpose of this study was to determine the concept learning achievement of children aged 3-6 based on parental background in Plateau State.

Specifically, the study sought to:

1. Ascertain the concept learning achievement of children aged 3-6 based on educational status of parents.
2. Find out the concept learning achievement of children aged 3-6 based on occupational status of parents
3. Determine the concept learning achievement of children aged 3-6 based on housing location/condition
4. Ascertain the concept learning achievement of children aged 3-6 based on parent/child interaction

5. Determine the concept learning achievement of children aged 3-6 based on gender

Significance of the Study

The significance of the study derives both from the theoretical and practical basis of the findings of the study. The study would be of relevance to pupils, teachers, government, authors, curriculum planners and researchers, when published.

The findings of the study will advance the Piaget and Brunersô theories of cognitive development. These theories discussed about the cognitive development and stages in which cognitive development takes place in the life of children. Since cognitive development involves reasoning, imagery, abstraction, for a child to learn about concepts, such a child must have developed cognitively in order to understand their mental operations. Therefore, the finding of this study will help to advance the theory that what is available to an individual in terms of his schemas decides how he is going to respond to the stimuli present in his physical or social environment. On the other hand, the individual has to adapt to his environment for survival as well as proper growth and development. The key to his cognitive development thus lies in his constant interaction with and adaptation to his physical and social environment. The task of such

adaptation is carried out through the processes of assimilation and accommodation.

To the pupils, the findings of the study may reveal whether the identified parental background factors such as educational status, occupational status, housing location and condition, parent-child interaction and gender influence the learning of concepts by 3 ï 6 year old pupils in Plateau State. This could provide pupils with the awareness on the extent to which their academic performance can be affected by their parentsô level of educational attainment; which could enable the parents develop interest in the education of their children by providing the necessary materials and emotional climate for parent-child interaction and for higher academic achievement.

This study intends to serve as a diagnosis for the problem of falling standards of education in Plateau State. The poor performance in concept learning in pre-primary school could be responsible for the falling standard of education in primary, post-primary and even tertiary institutions of learning. Therefore, the finding of the study would help to improve the level of parental involvement in the education of their children by providing the necessary materials and emotional climate for parent-child interaction and for higher academic achievement.

More importantly is the fact that findings of this study will provide pupils, teachers, government, authors, curriculum planners and researchers with the awareness on the extent to which childrenôs academic performance can be affected by their parentsô background factors such as level of educational attainment, occupational status of parents, housing location and condition, parent-child interaction and gender. This study enables parents to know that the type of occupation they are engaged in determines to a large extent his income and his growing child which will enhance his learning of concepts and performance in school. Therefore, the finding of the study would help the would-be parents to be careful in choosing the occupation which could give room for parental involvement in the education of their children by providing the necessary materials and emotional climate for parent-child interaction and for higher academic achievement.

It will also help parents to know that interaction with the child can create a sense of belonging to the child with regards to learning. This study will help parents and teachers to create favourable environment both at home and school for better learning of concepts. No organism, regardless of its potentialities and basic qualities, can survive in the absence of favourable environment.

This study is equally be significant to administrators in the sense that areas of weakness will be identified which will provide framework for organizing workshops, seminars and in-service training for teachers and parents concerning the factors responsible for high academic performance of children.

The findings of this study can help policy makers on the need for improving income, irrespective of qualification and experience; that is, redistribution policy to ensure equality in the general income levels. To also provide various means through which students from different backgrounds achieve maximum performance in education or device equal benefits thereby narrowing the gap between the rich and the poor.

This study will be significant to parents and teachers to treat every child whether a boy or girl equally, and not to be gender discriminatory. Finally, this study will serve as basis for further researches on concept learning in other level of education.

Scope of the Study

This study focused on determining the concept learning achievement of children aged 3-6 based on parental background in Plateau State. The geographical scope is restricted to northern zone of Plateau State which is located in the North Central zone of Nigeria.

The content scope of this study covered determining the concept learning achievement of children aged 3-6 based on parental background factors such as: educational status of parents, occupational status of parents, parent/child interaction, housing location and condition and gender on learning of concepts by 3 ï 6 year old children. The content was developed from the curriculum of the pre-primary schools, which has been harmonized by Nigerian Educational Research Development Centre (NERDC). The curriculum clearly spelt out the type of concepts to be learned by this category of children (3 ï 6 year old).

Research Questions

The following research questions were generated to guide the study:

1. What is the concept learning achievement of children aged 3-6 based on educational status of parents?
2. What is the concept learning achievement of children aged 3-6 based on occupational status of parents?
3. What is the concept learning achievement of children aged 3-6 based on housing location/condition?
4. What is the concept learning achievement of children aged 3-6 based on child interaction?

5. What is the concept learning achievement of children aged 3-6 based on gender?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 levels of significance.

1. Concept learning achievement of children aged 3-6 will not differ significantly based on educational status of parents.
2. Concept learning achievement of children aged 3-6 will not differ significantly based on occupational status of parents.
3. Concept learning achievement of children aged 3-6 will not differ significantly based on housing location and condition.
4. Concept learning achievement of children aged 3-6 will not differ significantly based on parent ï child interaction.
5. Concept learning achievement of children aged 3-6 will not differ significantly based on gender.

CHAPTER TWO

REVIEW OF LITERATURE

The review of literature was carried out under conceptual framework, theoretical framework and review of empirical studies.

Conceptual Framework

Concept of Family Background

Meaning of concepts

Concept of children aged 3-6 years

Relationship among concept of family background, meaning of concepts and children aged 3-6 years

Theoretical Framework

Piaget cognitive development theory

Brunnerôs cognitive development theory

Related Empirical Studies

Studies on concept learning achievement of children aged 3-6 based on educational status of parents

Studies on concept learning achievement of children aged 3-6 based on occupational status of parents

Studies on concept learning achievement of children aged 3-6 based on housing location condition

Studies on concept learning achievement of children aged 3-6 based on parent/child interaction

Studies on concept learning achievement of children aged 3-6 based on gender

Summary of Reviewed Literature

Conceptual Framework

Concept of Parental Background

The role of the significant others (parents and home environment) in childrenôs motivation as a main factor was seen by Lumsden (2004) as helping to shape the initial constellation of childrenôs attitudes as they develop toward learning. Gottfried, Fleming and Gottfried (2004:43) supported this trend and emphasized that their study ñstrongly suggests that parental motivational practices have causal influences on childrenôs academic intrinsic motivation and school achievementò. Accordingly, there was a need to instruct parents on motivational practices such as encouragement of persistence, effort, mastery of subject area, curiosity and exploration.

In addition, Vollmer (2006) concluded that there is a strong correlation between parental background and children's school performance: Many empirical studies have found positive linear relationships between parental educational status and subsequent academic achievement (Fleming

& Gottfried, 2004; Lumsden, 2004)). Parental educational status, however, was seen by Roces and Garcia (2002) to have little effect to their childrenôs achievement. Roces and Garcia (2002) concluded that: (a) Academic self-concept was the variable that was most positively affected by parental involvement; this was relevant because students' self-concept had a powerful effect on academic achievement and (b) The relationship between parental involvement and causal attribution coincides, to some extent.

From the above parents' educational status and their children's capacity were congruent with the kind of causal attributions children make about their own achievements (i.e., the higher the capacity of expectations are, the greater was the childrenôs' tendency to make internal attributions about success, and fewer internal ones about failure).

A substantial body of research confirms that the structure of the family into which a child is born and develops, present both advantages and disadvantages that subsequently affect cognitive, socio-emotional and even physical health outcomes. McLanahan and Sandefur (2004) showed that children born to two married biological parents ï the traditional family structure ï had lower risk of being a high school dropout, pregnant teen, and idle; these children also had better adult outcomes. Later studies observing

younger children found that those born to married parents had fewer socio-emotional and health problems as well as higher cognitive scores.

Comparing children in traditional married couple with all other families, more nuanced research has examined differences in outcomes for children in various types of non-traditional families. One important distinction is whether children are living with cohabiting parents or single parents (typically single mothers). In a cohabiting family (and particularly if the cohabiters are the childôs biological parents), the child has the benefit of living with both parents and their shared time and economic resources would likely yield better child outcomes relative to children living with single mothers (Brown, 2004). Single-parent households typically have the least resources and thus, would be expected to have worse outcomes relative to children in married or cohabiting unions (Magnuson & Berger, 2009).

Empirical studies have shown that family instability is associated with lower child cognitive scores, increased behavioral problems, and poorer health (Magnuson & Berger, 2009). Nevertheless, family structure at birth still has an influence even when stability is taken into account. Carlson and Corcoran (2001) found that children born to single parents had more behavioral problems and lower cognitive scores regardless of whether their family structure was stable or unstable since birth.

Another reason to take both birth status and stability into account is that the risk of instability is related to initial family structure. Non-marital cohabitation at birth has been linked to greater risk of later instability relative to parents who are married or even single at birth. Hence, instability in married, cohabiting, and single-parent families may have differential effects on children and this study will explore these effects in detail (Manning & Smock, 2007).

If family structure and family instability do affect child cognitive ability, behaviour, and health, it is important to understand through what mechanisms these effects come about. Economic, time, and parental resources are all likely to play an important role and we discuss each of these potential mediators below. We note that these mediators are not mutually exclusive nor do they complete the exhaustive list of theoretical mechanisms possibly at work (Manning & Smock, 2007).

Income and family type are inextricably linked: empirical evidence confirms that non-traditional families are consistently poorer than traditional married families (Carlson & Corcoran, 2001). In particular, children of single mothers are at a unique disadvantage since only approximately one-third of no custodial fathers pay child support. Even children living with unmarried cohabiting parents have fewer resources than children with

married parents because cohabiting parents have lower incomes and less education than married parents. Subsequently, non-traditional single and two-parent families ï regardless of their stability over time ï have fewer economic resources to buy books, clothes, food and other inputs that boost childrenôs academic, social, and health outcomes (Brown, 2004).

Time allocated to raising and caring for children is expected to be positively correlated with their wellbeing. While the quality of time a parent spends with the child is salient, studies have shown that quantity of time also has positive consequences for child cognition and health. This research points specifically to the likely negative effects of paternal absence. Not only do single mothers have less time to spend with their children (since they bear more of the household and parental responsibilities relative to their married counterparts), but absent fathers also tend to spend less time with their children than do resident fathers. Nevertheless, the involvement of a non-resident father may ameliorate child health, behaviour, cognitive scores, and language skills (Tach, 2010).

Beyond economic and time inputs, parents supply many other intangible resources that are consequential for early child cognitive, behavioral and health development. Two such intangible parental resources are parenting quality and parental mental health. In single-parent families,

parenting may be less effective because often the custodial parent (usually the mother) must be both provider and supervisor. Non-custodial fathers are less involved than custodial fathers, and even if they are involved, they do not play as strong a role in the discipline and shaping of their childrenôs lives (Kelly & Emery, 2003).

Family instability may further alter parenting quality by creating residential instability, change in social networks, loss of economic resources, and socio-emotional adjustments (Cooper, 2009). These changes in turn are likely to affect parentsô ability to be good parents, which consequently may affect parentsô provision for their children, including the material needs for the learning of concepts by children aged 3-6 years.

Family structure may also be related to parental mental health. Studies have shown that single and cohabiting mothers have higher levels of depression relative to married mothers (Brown, 2004; Demo & Acock, 2006). Moreover, the stress that accompanies family instability also affects parental mental health, further compromising child development.

Meaning of Concepts

Concepts are vital to all forms of learning because on them lay the basis for most of our symbolic behaviour. Human beings, from infancy to old age, learn new concepts and use old concepts in new situations in their

day-to-day interactions. Human language is nothing but a configuration of symbols which were learned to associate with different social concepts. These symbols allow economy in reasoning and problem-solving. The most generalized and definite concepts are applied in higher mathematics and logic. However, individuals vary in their level of concept formation due to difference in age, culture, intelligence and experience. For example, a child of 5 years may have a different concept of drugs from that of a pharmacist.

There is no generally accepted formal definition of the word ócepteô as it is with most psychological constructs. Chauhan (2007) defines concept as an idea or understanding of what a thing is, or ordered information about the properties of one or more things or class of things to be differentiated from it. The word concept is used to designate both mental constructs of individual and also identifiable public entities that comprise part of the substance of the various disciplines.

Falvell in Zaram, Damtong and Abang (2010) has indicated that a formal definition of concept in terms of its defining attributes is useful in specifying what concepts are and also understanding the great variability among concepts of a variety of objects. Concepts have attributes. Every concept has some criteria or attributes which refer to the set of values and

properties that each member of the concept class has in common. Following are the main attributes of concepts highlighted by Chauhan (2007):

Learnability: There is a great difference in learnability of concepts in the sense that some concepts are more easily learned than others by individuals who share similar cultural experiences and language. For instance, concepts which have readily perceptible instances as cat, dog, cow and tree are more learned than concepts without perceptible instances as atom and eternity.

Usability: Some concepts vary in their usability in daily life, while others are more used in day- to- day activities, others are less used. For example, numbers are more used than fractions or ratios.

Validity: Some concepts that are well defined taxonomically within the natural setting such as physical, chemical and botanical have greater validity than concepts in behavioural sciences like intelligence, democracy and group dynamics.

Generality: Higher concepts are more general in terms of the number of sub-classes or subordinate concepts. Concepts higher in taxonomy have fewer defining attributes than those lower in taxonomy. Since differentiation among sub-classes are made in terms of one or more attributes that are not

used in defining the higher concepts, human beings use highly generalized concepts.

Power: This refers to the extent to which a particular concept facilitates or is essential to the attainment of other concepts. Bruner (in Chauhan, 2007) stated that there are certain big ideas or fundamental concepts in each of the various disciplines, which are necessary to learn at the beginning to understand other concepts. He recommended that these should be taught first so that other less powerful concepts and factual information could be related to them.

Structure: Any public concept defined in terms of attributes has a structure, a relatedness of its defining attributes. For instance, perceptibility of concepts varies with respect to the extent to which their instances can be sensed. A plant has many instances, which can be manipulated, seen and smelled whereas eternity has no perceptible instance. There are concepts that can be represented with various degrees of accuracy by drawings or other means of representation which can be drawn and shown to the children. With the increase in age, individuals are able to identify the less obvious attributes of concepts instances. With increasing age, a child can learn more though manipulating objects and seeing them. In addition, he can learn about them through symbolic representation, especially verbal experiences. There

are more concepts, which have numerous instances, while others are imaginary rather than actual instances.

In some cases, the particular instances of the same concepts that are different which an individual encounter vary markedly. For example, most children encounter instances of mother, father, fear, love and death, but instances encounter are somewhat unique for each child. Concepts that have strong affective responses such as some parts of the human body like the reproductive organs (e.g. penis, virginals) are more nearly non-communicable mental constructs of the particular individual than are concepts of plant, numeral and the like that have many similar instances that are experienced without much emotion.

There are mainly three types of concept, which are as follows:

- Conjunctive concept: This is defined by the joint presence of the appropriate value of several attributes, for example, a green circle enclosed in a square.
- Disjunctive concept: This involves a critical combination of critical attributes or any other, for example, red or green, square.
- Relational Concept: This involves the notion of a common relationship among the various elements or attributes defining the concept; for example, classifying, cow, goat, sheep, cattle, and so on;

on the basis of possession of four legs; or the concept of óinsideô ódownô óoutsideô (Ekeruo, 1998).

To build concepts, the child is endowed with certain biological inheritance at the time of his birth. He gets the knowledge of the external world through sense organs, which are the gateways of knowledge.

Children learn concept best when they are given a wide range of experiences with the object and situations that their developing vocabulary expresses. In this early processing of the world around them children begin to classify objects and instances and these classification tasks are essential to concept formation.

Development of concepts starts from the first year of life of the child. The child begins from simple concepts of his environmentôs object as feeding bottle, table, eyes, nose and other parts of his body. At this stage, the child is not able to express them verbally, but if the child is required to bring his feeding bottle he will bring it; if the child is also able to point at his eyes on request. The quantity and quality of concepts depends on the environment the child moves in and the experiences he had. For example, the child who is born in a slum area will have a different concept of a house from the child who is born in a well planed part of the modern city. The variety of concepts and their quality depends upon experiences which the child receives the

home environment. The varieties of concepts differ from individual to individual depending upon his environment, intelligence and language ability. Conceptualization is a cumulative process. The formation of concepts in later life depends on the early experiences of the individual. The early experiences are very vital and play an important role in the cognitive development of the child in later life (Mangal, 2011).

There are four levels of concept development as proposed by Ekeruo, Ekue, Idediashi, and Nwamuo (1998). These are: Concrete level: this occurs when an individual recognizes a concept encountered in a previous occasion. Conceptualization here is at discriminatory level. According to Woodruff (in Chauhan, 2002) the development of concept at the concrete level just as all learning, begins with some form of personal contact with actual objects, events or circumstances, the individual gives attention to some object through a light wave or a sound wave, some form of direct contact with a sensory organ in the body, an impression is picked up and lodged in the mind.

Identity level: This happen when the individual recognizes the object as being the one that he previously encountered. When the child is able to generalize the characteristics of the object in different perspectives, or

sensed in different modalities, the child is said to have attained concept at the identity level.

The concept formation at the concrete level, involves only the discrimination of an object from other objects but attainment at the identity level involves both discriminating various forms of the same object from other objects and also generalizing the forms as equivalent. The concept at the identity level is attained temporarily before it is attained at the classificatory level.

Classificatory level: This happens when the individual can treat at least two different instances of the same class as being equivalent even though he may not be able to describe the basis for his response. Example, the child treats a family cat and a wild cat as cats; it means he has attained a classificatory level of concept.

Formal level: This occurs when the individual can give the name of the concept, name its intrinsic values and defining attributes whether or not they belong to a set and why. The child shows the concept of a dog at the formal level when shown dogs, foxes and wolves of various sizes and colours, he properly designates the dog as such, calls them dogs and name the criteria attributes that differentiate the dogs from foxes and wolves. This distinctive aspect at this level of concept mastery is the learnerôs ability to

specify and name the defining attributes and to differentiate among newly encountered instances and non-instances on the basis of presence or absence of defining attributes.

Concept of children aged 3-6 years

Children aged 3-6 years are still at the pre-primary age. National Resource Center for Family-Centered Practice and Permanency Planning gave the pre-School (3-6 years old) developmental milestones as follows:

The physical characteristics of a child within the age range of 3-6 years show that such a child:

- Is able to dress and undress self
- Has refined coordination and is learning many new skills
- Is very active and likes to do things like climb, hop, skip and do stunts

Emotional/social characteristics of a child within the age range of 3-6 years show that such a child:

- Develops capacity to share and take turns
- Plays cooperatively with peers
- Is developing some independence and self-reliance
- Is developing ethnic and gender identities
- Learning to distinguish between reality and fantasy

- Learning to make connections and distinctions between feelings, thoughts and actions

The intellectual/cognitive characteristics of a child within the age range of 3-6 years show that such a child:

- Pre-school-aged childrenôs ability to understand language usually develops ahead of their speech
- By age 6, their vocabulary will have increased to between 8,000 and 14,000 words (but it is important to remember that children in this age group often repeat words without fully understanding their meaning).
- They have learned the use of most prepositions (up/down, ahead/behind, beside) and some basic possessive pronouns (mine, his, ours), and have started to master adjectives
- Pre-school children continue to be egocentric and concrete in their thinking. They are still unable to see things from anotherôs perspective, and they reason based on specifics that they can visualize and that have importance to them (i.e. ñMom and Dadò instead of ñfamilyò).

- When questioned, they can generally express who, what, where, and sometimes how, but not when or how many. They are also able to provide a fair amount of detail about a situation.

It is important to keep in mind that those children in this age range continue to have trouble with the concepts of sequence and time. As a result, they may seem inconsistent when telling a story simply because they hardly ever follow a beginning-middle-end approach. One wonders the extent these developmental milestones would help these 3-6 year old children to learn concepts especially when they are being influenced by parental background such as educational status of parents, parental occupation, housing location and condition and parent-child interaction as well as gender of the children.

Relationship among concept of family background, meaning of concepts and children aged 3-6 years

The role of the significant others (parents and home environment) in childrenôs motivation as a main factor could be seen as helping to shape the initial constellation of childrenôs attitudes as they develop toward learning. A substantial body of research confirms that the structure of the family into which a child is born and develops, present both advantages and disadvantages that subsequently affect cognitive, socio-emotional and even physical health outcomes.

Concept is an idea or understanding of what a thing is, or ordered information about the properties of one or more things or class of things to be differentiated from it. The word concept is used to designate both mental constructs of individuals and also identifiable public entities that comprise part of the substance of the various disciplines. There are mainly three types of concept, which are as follows: Conjunctive concept: This is defined by the joint presence of the appropriate value of several attributes, for example, a green circle enclosed in a square. Disjunctive concept: This involves a critical combination of critical attributes or any other, for example, red or green, square. Relational Concept: This involves the notion of a common relationship among the various elements or attributes defining the concept; for example, classifying, cow, goat, sheep, cattle, and so on; on the basis of possession of four legs; or the concept of óinsideô ódownô óoutsideô There are four levels of concept development, which are: Concrete level which occurs when an individual recognizes a concept encountered in a previous occasion. Identity level: This happens when the individual recognizes the object as being the one that he previously encountered. Classificatory level: This happens when the individual can treat at least two different instance of the same class as being equivalent even though he may not be able to describe the basis for his response. Formal level: This occurs when the individual can

give the name of the concept; name its intrinsic values and defining attributes whether or not they belong to a set and why. Children learn concept best when they are given a wide range of experiences with the object and situations that their developing vocabulary expresses. Children aged 3-6 years are still at the pre-primary age. Children aged 3-6 years continue to have trouble with the concepts of sequence and time. As a result, they may seem inconsistent when telling a story simply because they hardly ever follow a beginning-middle-end approach.

It could be reasoned that definition of concept could lead to acquired experiences and such experience lead to concept building. Concepts are developed in levels. These acquired experiences which develop in levels/stages lead to concept attainment. Since the structure of the family into which a child is born and develops, present both advantages and disadvantages that subsequently affect cognitive, socio-emotional and even physical health outcomes, one wonders the extent parental background factors such as educational status of parents, parental occupation, housing location and condition and parent-child interaction would influence the learning of concepts by children aged 3-6 years. Relationship among concept of family background, meaning of concepts and children aged 3-6 years and

concept attainment can be represented in a schematic diagram as in figure 1 below.

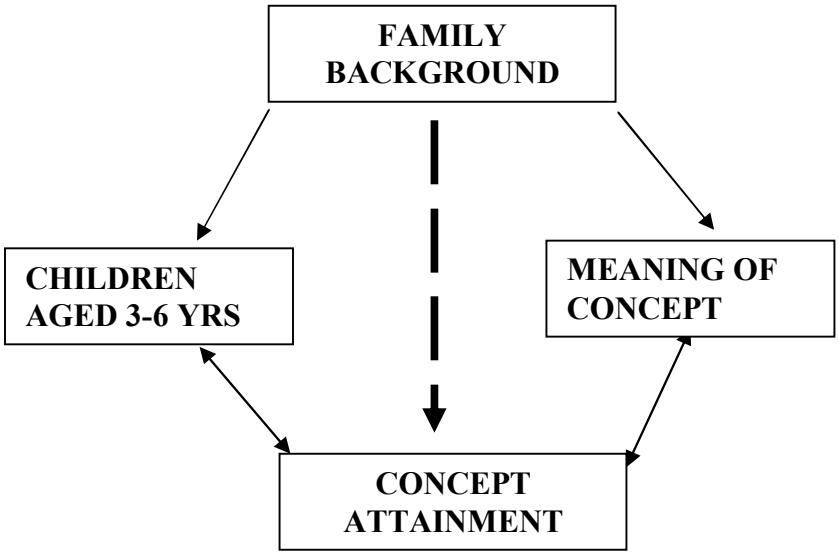

Figure 1: Schematic diagram of the relationship among concept of family background, meaning of concepts and children aged 3-6 years

Theoretical Framework

Piaget's theory of Cognitive Development (1896–1980)

Theory of Cognitive Development was developed by Piaget (1968) which designed a proper framework to understand the structure, functioning and development of the cognitive network of the human mind. The tenets of the theory were that, like physical organs of the human body, there are two aspects of the human mind: one is referred to as cognitive structure and the other as cognitive functioning.

Cognitive structure

The human baby, unlike other creatures, is born with a few practical instincts and reflexes such as sucking, looking, reaching and grasping. Therefore, the initial cognitive structure of infants is supposed to incorporate only those cognitive abilities or potentials which help them to do such acts such as looking, reaching out or grasping. Piaget named these abilities or potentials as schemas. Let us understand the meaning conveyed by the term óschemaô more clearly by referring to a particular schema like the ósucking schema.ô Sucking schema refers to oneôs general cognitive ability or potential to suck objects. This schema is more than a single manifestation of the sucking reflex. It can be thought of as a cognitive structure that makes all acts of sucking possible. However, the description of this act of sucking differs in relation to contents that is, specific responses to specific stimuli such as the motherôs nipple, a spoon, a toy, and so on. A schema represents a unit of oneôs cognitive structure in the shape of a general potential to perform a particular class of behaviours (like sucking, grasping, calculating, and so on); the content of which is related to the conditions that prevail during any particular manifestation of that general potential.

The various schemas with their contents thus form the basic structure of the human mind. The earlier schemas represent those reflexes and

instincts that are biologically inherited. However, as a child grows, with the interaction of the physical and social environments, he is able to form different schemas, resulting in changes and modifications in his cognitive structure.

Cognitive functioning

The structure of an organism is said to play a decisive role in its functioning. Therefore, what is available to an individual in terms of his schemas decides how he is going to respond to the stimuli present in his physical or social environment. On the other hand, the individual has to adapt to his environment for survival as well as proper growth and development. The key to Piagetôs cognitive development thus lies in the childôs constant interaction with and adaptation to his physical and social environments. The task of such adaptation is carried out through the processes of assimilation and accommodation.

Assimilation refers to a kind of matching between the already existing cognitive structures and the environmental needs as they arise. In a situation where a six month old infant is given a new toy it is likely to respond by putting the toy into the mouth. This is assimilation, as what the child did was to assimilate, incorporate or fit ideas about the new toy into already existing cognitive structure about the sucking schema. His cognitive structure about

old toys revolved around the sucking schema, therefore, he at once responded by performing the act of sucking. If the new toy is too big to be picked up and put into the mouth, there will certainly a need for a change or modification in the already existing cognitive structure. The child will have to change his old ways of thinking and behaving in order to adapt or adjust to the new situation. Consequently, instead of sucking, the child may respond by pushing or grasping the toy. This is called accommodation as one tries to accommodate or adjust to new ways of thinking and behaving in place of assimilating or behaving in the same old fashion. Thus, whereas in the process of assimilation, oneôs responses are supposed to bank upon oneôs past experiences and already compiled stock of information, in the process of accommodation one has to learn new ways of thinking and behaving. When a child is offered milk in a tumbler instead of the feeding bottle, first he tries his old way of behaving that is, sucking; afterwards, as a result of accommodation he picks up the new ways by drinking the milk from the tumbler and consequently makes the necessary modification in his old cognitive structure. The processes of assimilation and accommodation which are the key to Piagetôs cognitive development thus lie in the childôs constant interaction with and adaptation to his physical and social environments while the child learns concepts.

Brunner's Theory on Cognitive Development (1961)

Brunner and his associates stated that the cognitive development of child takes place by his undergoing three successive stages, namely: (a) a stage of inactive representation, (b) a stage of iconic representation, and (c) a stage of symbolic representation. Inactive implies that children at this stage identify the objects not from their nature but from the actions evoked by them. For example, a child of about seven months may grasp a small object in his hands, and may move it to and fro in front of his eyes. If he drops the object, he may still move his hands to and fro thereby giving evidence of the actions that the object evoked in him, and not of the object itself. Further, a tennis player may show evidence of inactivity by making a swing of his arm in front of a mirror. Inactivity is a process of internalizing the action that experience offers to an individual.

The next stage of iconic representation is a representation of models and images of objects and things of the concrete experience of the child.
For example, a child of this age is able to form images of various experiences of his confrontations with the external environment. These iconic images are relatively independent of actions needed in the earlier stage. Brunner (1961) indicated that by the end of the first year of his life, a child moves to the iconic stage of model-building operations. This takes

place with the organization of the perceptual ability of the young child. Perception in young children according to Brunner (1961) is characterized by the following features:

a) It is óstuck,ô that is non-transferable,
b) It is óautisticô that is subject to the influence of affect,
c) It is ódiffuseô in organization,
d) It is ódynamicô in the sense that it is closely related to action,
e) It is óconcreteô rather than schematic or abstracted,
f) It is óegocentricô in the sense of having a central reference to the child as an observer,
g) It is marked by an unsteady attention, and
h) It is centred on a minimum number of attributes, or cues (p.37).

All the above features of perception by very young children seem to be the corner stones of the icons children build. Children label their images and they become symbolized, and these symbols stand in good stead in their cognitive behaviour and manifestations. The function of this stage is therefore to represent the external and the internal world of thought processes of the child through the medium of language or symbols. The knowledge of these stages of cognitive development would guide one on how the children aged 3-6 would learn concepts.

Empirical Studies

Studies on concept learning achievement of children aged 3-6 based on educational status of parents

Education has been viewed as the pre-requisite for employment and social recognition. Education guarantees peopleôs access to the enjoyment of

good health, liberty, security, economic well being, full social and political participation. Evidence has shown that educated parents show positive attitude towards the education of their children by providing for them.

In a study by Ibiam (1998) to determine parentsô and teachersô attitude towards young childrenôs play, two hypotheses and twelve research questions were used to investigate the relationship that exists between gender, location, occupation, level of education and the attitude of parentsô and teachersô towards young childrenôs play. The study design was correlational. A multistage sampling method was used to select 744 parents and 144 teachers in 6 primary schools and 4 nursery schools in 2 local government areas of Abia State. A questionnaire was used for data collection. Means, Standard Deviations, Spearman Correlation Coefficient product and multiple regressions analysis were used to analyze the data. Among the findings is that: Parents and teachers have a negative attitude towards young childrenôs play. There is a significant relationship between parentsô gender and their attitude towards young childrenôs play. In the case of teachers, there was no significant relationship in all the variables. The study is related to the present study since both are focused on relationship that exists between level of education and the attitude of parentsô towards young childrenôs play. However, the geographic difference demands that the

concept learning achievement of children aged 3-6 based on educational status of parents educational status in Plateau State be investigated.

In another study, Akpochafo (1999) investigated parentsô education and the effect it has on the childrenôs educational achievement in Benue State. The study design was correlational. A multistage sampling method was used to select 474 parents. A questionnaire was used for data collection. Frequencies, Means, Standard Deviations, Spearman Correlation Coefficient and multiple regressions analysis were used to analyze the data. Among the findings is that: educated parents encourage their kids to go to school early, guide them to good school and encourage them on to the best professions. The study also revealed that educated parents give their children financial assistance, help the children with their assignment at home or send them for extra-mural classes, show interest in their school work and take them out on excursion to places of interest. The study is related to the present study since both are focused on relationship that exists between level of education and the attitude of parentsô towards young childrenôs play. However, the geographic difference demands that the concept learning achievement of children aged 3-6 based on educational status of parents in Plateau State be investigated.

Studies on concept learning achievement of children aged 3-6 based on parental occupation

Parental occupation has been identified as one of the variables affecting childrenôs learning in schools. Most findings seem to support the view that poorly paid parents have difficult time sending and maintaining their children in school, unlike parents with high income who are better equipped.

In line with this, Okunrotifa (1998) carried out a study on the relationship between parental occupation and academic performance of children in River State. The study design was correlational. A multistage sampling method was used to select 2117 parents in 4 local government areas of River State. A questionnaire was used for data collection. Frequencies, Means, Standard Deviations and multiple regressions analysis were used to analyze the data. The study reported that parental income and occupation are the main determinants of the individualôs social class. The type of occupation which one is engaged determines, to a large extent, his income and his ability to provide fund and other necessary basic facilities for a growing child which will enhance his learning and performance in school. The study is similar to the present one as they are both interested in effect of parental occupation on academic performance.

Similarly, Blau and Duncan in Wegener (1999) tested the correlation between sonôs occupational status with fatherôs occupational status. Their studies were limited to, make and show two aspects of a personôs social class of origin: fatherôs educational achievement and occupational prestige; both ascriptive status traits (fixed at birth). The purpose of the study was to test whether ascriptive or achieved characteristics directly affected status attainment of the child. The study design was correlational. A multistage sampling method was used to select 679 parents in Lagos State. A questionnaire was used for data collection. Means, Standard Deviations and t-test statistic were used to analyze the data. The study found that higher fatherôs educational achievement could yield higher childôs educational achievement due to higher expectations and more support for attainment. Higher fatherôs occupational prestige could increase educational expectations for the child as well as providing financial resources to support higher education. The study is similar to the present one as they are both interested in concept learning achievement of children aged 3-6 based on parental occupation.

In another study by Dabo (2002) on the effect of parental socio-economic background on the studentsô academic performance in selected secondary schools in Bauchi State, the purpose of this study is to collect and

analyze information on the effect of socio-economic background on studentsô academic performance in selected secondary schools in Bauchi State. This study was specifically to ascertain the observation that occupational status of parents has influence of childrenôs academic achievement. Sample areas include six (6) secondary schools randomly selected. Questionnaire was used for data collection. Means, Standard Deviations and multiple regressions analysis were used to analyze the data. Results of findings indicated that parental occupation was found to affect studentsô academic performance as children of high socio-economic status were found to perform significantly better than those of low socio-economic. The study is similar to the present one as they are both interested in parental occupation it affects academic performance.

Similarly, Bulus (2010) conducted a study on parentsô socio-economic status and its effect on the academic performance of economics students of secondary schools in Jos North Local Government of Plateau State. The purpose of this study was to investigate the impact of parentsô socio-economic status on the academic achievement of their children as well as to investigate into other factors responsible for academic achievement apart from family background. The sample areas were grouped into five private and four public secondary schools. Data used for this study are grouped

under primary and secondary data. Primary data were obtained from questionnaires consisting of two sections. Section A contained background data of the respondents; while Section B contains 10 questions. The questionnaire was administered to economics students.

The study found that children from high socio-economic background have conducive social condition prevailing in the home. This put together with that of the school, makes learning enjoyable and pleasant. Their parents give attention to interacting with their children especially on areas that bear on their schoolwork. The study is similar to the present one as they are both interested in parental occupation as correlate of academic performance. However, the present study covers larger geographic location.

The study conducted by Udoje (2009) was on the influence of socio-economic achievement status of parents in the academic achievement of secondary school students in mathematics in Awka Education Zone of Anambra state. Ex-post facto research design was adopted for the study. The purpose of the study was to identify the factors in the economic status of parents that influence the academic achievement of senior secondary school studentsô mathematics. A-35 item statement or questionnaire titled socio-economic status questionnaire (SESQ) was used to collect information from 800 senior secondary school students. They were drawn, using simple

random sampling technique. The researcher formulated three research questions and three null hypotheses for the study. The research questions were answered and data were analyzed using mean and standard deviation, whereas ANOVA was used to test the hypotheses at 0.05 level of significance.

The finding of the study showed that the socio-economic status of parents affect the academic achievement of the students positively; where the parents are able to provide study materials. But this affects them negatively with poor parents who find it difficult to provide the study items their children needed. The related empirical study was on socio-economic achievement status of parents of students in the secondary schools while the present study is on parental occupation as correlate of learning of concepts by children aged 3-6. Though, both consider parental socio-economic status, the related study did not say anything on how parental economic status could impact learning of concepts which is the major concerns of the present study.

A study on influence of family background on the academic performance of adolescents in Shomolu Educational District of Lagos State was conducted by Okeke (2005). The purpose of the study was to find out the influence of family background on the academic performance of

adolescents. The design of the study was survey research design. The researcher used structured questionnaire and a psychological test to elicit information for the study. The sample was drawn using simple random sampling technique. Six research questions and six null hypotheses guided the study. The research questions were answered using mean and standard deviation and the hypotheses were tested using z-test statistics.

The findings of the study showed that students from small size, educated parents, high socio-economic status homes, in fact, homes and those with parental support performance equally academically as those from large size families, parents that are not educated, low socio-economic status homes, single parent and those without parental support. On the other hand, students from stable homes perform better academically than those from unstable homes. The study is similar to the present one as they are both interested in parental occupation and its influence on academic performance. However, the study focused on influence of family background on adolescents whereas the present study focuses on parental occupation as a factor in learning of concepts by children aged 3-6.

Studies on concept learning achievement of children aged 3-6 based on location/housing condition

The influence of environment on the academic achievement of children was investigated by Martin, Wood and Little (1999). The purpose

of the study was to find out the extent housing location and conditions influence the academic achievement of children in school. The study design was correlational. A multistage sampling method was used to select 789 pupils in Kenya. A questionnaire was used for data collection. Means, Standard Deviations and multiple regressions analysis were used to analyze the data.

The finding of the study revealed that a significant relationship between the childôs environment and academic achievement. The study is similar to the present one as they are both interested in relationship between environment and the academic achievement of children. However, the differences in geographic location demands the relationship between parental housing location and condition and learning of concepts by children aged 3-6 in Plateau State be investigated.

Similarly, Mangal (2011) carried out a study on the relationship between childôs home environment and the childôs academic achievement. The purpose of the study was to find out the extent housing location and conditions influence the academic achievement of children in Kenya. The study design was correlational. A multistage sampling method was used to select 289 pupils. A questionnaire was used for data collection. Means, Standard Deviations and t-test statistic were used to analyze the data.

The finding of the study revealed that the childôs home environment is usually important in the formation of cognitive abilities; that is, measured intelligence, his creativity, the manner in which he conducts interpersonal relationship and his level of thinking. The finding went further to show that acquisition and proficiency in learning is made possible by environmental influences. The study is similar to the present one as they are both interested in influence of environment on the academic achievement of children. However, the differences in geographic location demands parental housing location and condition as correlate learning of concepts by children aged 3-6 in Plateau State be investigated.

Studies on concept learning achievement of children aged 3-6 based on parent-child interaction

The way members of a family, particularly parents, relate to their children may have remarkable influence on the way these children relate and interact with others. Harkness (1998) studied the role of mothers and siblings in the first language socialization of Kokwestern children in Kipsipis community in Kenya. The study design was correlational. A multistage sampling method was used to select 789 parents in Kipsipis community in Kenya. A questionnaire was used for data collection. Means, Standard Deviations and t-test statistic were used to analyze the data.

The finding of the study revealed that children who spent more time talking to adults were linguistically more advanced in relation to their age than their less talkative companions. Parent-child interaction seems to encourage more practice which in turn is associated with faster progress. The study is similar to the present one as they are both interested in influence of parent-child interaction on the academic achievement of children. However, the differences in geographic location demands the extent parent-child interaction correlates with learning of concepts by children aged 3-6 in Plateau State be investigated.

In another study, Durojaiye (1998) investigated the influence of parent-child interaction on the academic achievement of their children. The study design was correlational. A multistage sampling method was used to select 189 parents in Cameroun. A questionnaire was used for data collection. Means, Standard Deviations and t-test statistic were used to analyze the data. The finding of the study revealed that parent-child interaction is perhaps most important in the pre-school years where the foundation of attitudes of questioning, curiosity and investigation is first developed before being carried over to the school. He also found out that children who interact very little with their parents and adults use mostly the instrumental and regulatory models of language; they rarely use the

imaginative model of language. The study is similar to the present one as they are both interested in influence of parent-child interaction on the academic achievement of children. However, the differences in geographic location demands the relationship between parent-child interaction and learning of concepts by children aged 3-6 in Plateau State be investigated.

Another study carried out by Okeke (1996) was on the influence of parents-child interaction on academic achievement of the children who were still in the Nursery Schools in Anambra State. The purpose of this study is to find out whether there is any relationship between family type, parental relationships, child rearing pattern, multiple birth, size of the family and the pattern of interaction among nursery schools children.

The sample areas, five nursery schools were selected are from each educational zone of the state. Data used for this study are questionnaires, interview, socio-metric test and observation. The questionnaires were of two types, one for teachers and one for parents. Interview questions were constructed and asked to collect information. Observation and socio-metric were used too.

Results of finding shows that children who freely interacted with their parents performed better than those did not interact freely with their parents. The study is similar to the present one as they are both interested in

influence of parent-child interaction on the academic achievement of children. However, the differences in geographic location demands the relationship between parent-child interaction and learning of concepts by children aged 3-6 in Plateau State be investigated.

Studies on concept learning achievement of children aged 3-6 based on gender

A study was conducted by Kaplan (1999) on the relationship between gender and concept learning in Canadian children. The purpose of the study was to find out the extent gender influences the academic achievement of Canadian children. The study design was correlational. A multistage sampling method was used to select 728 students. A questionnaire was used for data collection. Means, Standard Deviations and t-test statistic were used to analyze the data.

The finding of the study revealed that that children learn at a very early age what it means to be a boy and girl in the society. Through a myriad of activities, opportunities, encouragement, discouragement, overt behaviours, covert suggestions, and various forms of guidance, children experience the process of gender socialization. It is difficult for a child to grow to adulthood without experiencing some form of gender bias or stereotyping, whether it is the expectations that boys are better than girls at math or the idea that only females can nurture children. As children grow

and develop, the gender stereotypes they are exposed to at home are reinforced by other elements in their environment and are thus, perpetuated throughout childhood and on into adolescence. The study is similar to the present one as they are both interested in influence of gender on the academic achievement of children. However, the differences in age of the respondents and geographic location demands the influence gender has on learning of concepts by children aged 3-6 in Plateau State be investigated.

Summary of Literature Review

The review of related literature has enabled the researcher to provide clear information on the topic under discourse. Though different definitions of concept were given, generally concept was defined as an idea or understanding of what a thing is, or ordered information about the properties of one or more things or class of things to be differentiated from it. There are four levels of concept development such as concrete level, identity level, classificatory level and formal level.

Classificatory level happens when the individual can treat at least two different instance of the same class as being equivalent even though he may not be able to describe the basis for his response. Formal level occurs when the individual can give the name of the concept, name its intrinsic values and defining attributes whether or not they belong to a set and why. Children

learn concepts best when they are given a wide range of experiences with the object and situations that their developing vocabulary expresses.

Two theories are important to this work. They are Piagetôs cognitive development theory and Brunnerôs cognitive development theory. These theories discussed about the cognitive development and stages in which cognitive development takes place in the life of children. Since cognitive development involves reasoning, imagery, abstraction, for a child to learn about concepts, he must have developed cognitively in order to understand their mental operations.

Some empirical studies related to this study were reviewed. They are studies on educational status of parents, occupational status of parents, parent/child interaction, housing location/housing condition as correlates of learning of concepts as well as studies on gender as a factor in learning of concepts.

Finally, most of the studies show relationship between parental background and learning achievement among other categories of learners. A major problem as is evident from literature is that there is a general dearth of literature on parental background as a factor in learning of concepts by children aged 3-6; as most of the studies were carried out among secondary school students who were above age 3-6 while others were done in western

countries. The differences between the age of the subjects and the cultural environment motivated the need for the study to fill the gap.

CHAPTER THREE

RESEARCH METHOD

This chapter described the procedure for carrying out this study. Specifically, it described the design of the study, area of the study, population of the study, sample and sampling technique, instruments for data collection, validation of the instruments, reliability of the instruments, method of data collection and method of data analysis.

Design of the Study

This study adopted a causal comparative research design, which sought to determine the relationship between parental background variables and the learning of concepts by 3 ï 6 year old children in Plateau State. This type of design investigates the relationship between the independent variable and the dependent variable in a natural setting. There is no manipulation of the independent variable with the intention of seeing how it may affect the dependent variable.

Area of the Study

The study area is Plateau State. Plateau State is located in the north central part of Nigeria, and is made up of seventeen Local Government Areas. Plateau State is further divided into three educational zones

coinciding with its three political zones, the Northern, Central and Southern Zones.

Population of the Study

The population of the study consisted of 4003 (2142 males and 1861 females) pre-primary school children in the 60 pre-primary level schools in the Northern Education Zone (Planning, Research and Statistics (PRS) Units, Plateau State Universal Basic Education Board -2012). The choice of pre-primary education level was guided by the fact that they form the educational foundations of all educational levels and concept formation is most critical at this level of development. Plateau State has a number of educational institutions distributed across the three educational zones. For this study, only the pre-primary level education was involved with 154 of such found in the three zones in the following proportions: 60, 57 and 37 in the Northern, Central and Southern Zones respectively. Population wise, Plateau North has the largest number of pupils in this category totaling 5,147. This is followed by 4,964 and 4,116 pupils for Central and Southern Zones respectively. Distribution by gender of pupils reveals 2,726 males, 2,421 females for Plateau North, 2,361 males, 2,603 females for Plateau Central and 2,158 males against 1,958 females for Plateau State South (Plateau State Basic Education Board, 2013).

Sample and Sampling Technique

The sample size for the study consisted of 200 (two hundred) (107 males and 93 females) 3 ï 6 years old children drawn through multistage approaches from twelve pre-primary schools out of the 60 schools in northern educational zone in Plateau State.

Initially, simple random sampling technique through balloting without replacement was used to draw one education zone (Northern Educational Zone) from the three education zones in the state. Stratified random sampling technique was used to draw 5 percent of the schools in Northern Education Zone, ensuring that at least two pre-primary schools were drawn from each of the six local government areas in the zone and that one of the two schools was from the urban and the other from the rural areas of the zone to take care of location as a variable. Again, stratified random sampling technique was used to draw 5 percent of the pupils from each of the schools selected, giving a total of 200 respondents. The rationale for using 5 percent was based on the recommendation made by Ali and Olaitan (1996). They recommended that when the population is large, the sample of the study would be between the ranges of 5 percent to 20 percent.

Instrument for the Study

In conducting this study, one instrument named ñConcept learning achievement test for 3 ï 4 and 5 ï 6 year old childrenò was used for data collection. The demographic questionnaire sought information on parents/guardiansô personal data while the concept learning achievement tests were to find out how much learning the learner has acquired. For instance, the 75 item test for children aged 3-4, focused on: (Section One)- Identification of parts of the human body; (Section Two)- Identification of capital letters and small letters; (Section Three) Identification and matching of letters; (Section Four)- Matching letters with objects. For children aged 5-6, the 43 item tests focused on: (Section One)- Concept of food groups in form of food that gives carbohydrate, protein, fats, mineral salt and vitamins; (Section Two)- Classification of domestic and wild animals; (Section Three)- Concept of the five sense organs and their uses. For the purpose of this study, the researcher used the pre-primary school curriculum to draw the concept achievement tests for the 3 ï 6 year old (see appendix A page 105 for the tests).

Validation of the Instruments

Initial drafts of the demographic questionnaire for parents /guardians and concept learning achievement tests for 3 ï 4 and 5 ï 6 year old children,

respectively were face validated by two specialists in Educational Psychology, one specialist in Childhood Education, and one specialist in Educational Measurement and Evaluation. These specialists were asked to assess the instrument with regards to the suitability of the language and the extent to which the items represent the concept learning achievement for 3 ï 4 and 5 ï 6 year old children used in the study. They suggested that some of the items should be reframed or removed which the researcher adhered to. Therefore, their comments and suggestions were used in improving the instrument. (See Appendix C page 117).

Reliability of the Instruments

After modification of the test items in line with the recommendations of the specialists that validated them, the items were administered to a sample of thirty pre-primary school children drawn from schools in the central education zone, which was outside the study area. The concept learning achievement test item responses were scored and used to assess the reliability of the test. This was done using Kudder-Richardson formulae ï 20 in determining the internal consistency. Reliability estimate of concept achievement tests for children aged 3 ï 4 and 5 ï 6 year old and reliability indices of 0.73 and 0.72 were obtained for 3-4 year and 5-6 year old

children, respectively (see appendix B Page 115. for the internal consistency reliability calculation)

Method of Data Collection

The researcher administered the instruments with the help of twelve research assistants who were the regular class teachers in each of the twelve schools, to facilitate the study and cover the scope. The instruments were administered to the teachers of the pre-primary school children in their various schools and collection was made on the spot after their completion. The essence was to ensure that the entire questionnaire administered and completed were collected. This method helped in reducing loss of the questionnaire and removed undue influence from those not involved in the study. Also, it ensured that the actual teachers of pre-primary school children who responded to the concept learning achievement tests for 3 ï 4 and 5 ï 6 year old children, respectively, while these regular class teachers also provided the demographic details for parents/guardians.

Method of Data Analysis

The data collected for the study were analyzed using mean, standard deviation to answer the research questions, whereas t-test statistic, ANOVA

and multiple regression analysis were used to test the hypotheses at 0.05 levels of significance. The mean, standard deviation were used to determine the mean differences in the achievement of the children in the concept learning achievement tests while the t-test statistic, ANOVA and multiple regression analysis were used to determine the significance in the mean difference.

CHAPTER FOUR

RESULTS

The results of the study are presented in line with the research questions and hypotheses that guided the study.

Research Question One

What is the concept learning achievement of children aged 3-6 based on educational status of parents?

Table 1: Mean and Standard Deviation Scores on the Concept Learning Achievement of Children aged 3-6 based on Educational Status of Parents

Educational status	No	Mean	SD
Literate	145	78.56	21.75
Illiterate	54	56.96	18.66
Total	199	73.43	23.21

Data presented in Table 1 indicate the mean and standard deviation scores of respondents on the concept learning achievement of children aged 3-6 based on educational status of parents. The pupils from literate parents had a mean score of 78.56 with a standard deviation of 21.75, while the pupils from illiterate parents had a mean score of 56.96 with a standard deviation of 18.66. This gave a literate/illiterate parentsô mean difference of 22.60 in favour of the pupils from literate parents. This suggests that pupils from literate parents learn concepts more than pupils from illiterate homes.

A corresponding hypothesis raised to further address the research question is:

Hypothesis One

Concept learning achievement of children aged 3-6 will not differ significantly based on educational status of parents.

Table 2 t-test statistic on the **Concept Learning Achievement of Children Aged 3-6 Based on Educational Status of Parents**

		t-test for equality of means				
Educational parents	Status of	X	SD	df	t	Sig. 2-tailed
	Literate	78.56	21.75	197	6.761	.000
	Illiterate	56.96	18.66			

The result presented in Table 2 shows that concept learning achievement of children aged 3-6 did not differ significantly based on educational status of parents. The calculated t-value of 6.761 in respect of educational status of parents as a factor on learning of concept by children aged 3-6 has a probability value of .000 and therefore significant at .05 levels of significance. Therefore, the null hypothesis which states that concept learning achievement of children aged 3-6 will not differ significantly based on educational status of parents is rejected. This

difference is in favour of children from literate parents as shown by the mean difference on Table 1.

Research Question Two

What is the concept learning achievement of children aged 3-6 based on occupational status of parents?

Table 3: Mean and Standard Deviation Scores on Effect of Occupational Status of Parents on Learning of Concepts by Children Aged 3-6

Occupation of parents	No	Mean	SD
Artisan	30	58.77	25.95
Business	66	57.96	23.23
Paid employment	103	81.21	19.12
Total	199	73.43	23.21

Data presented in Table 3 show the mean and standard deviation scores of respondents on the concept learning achievement of children aged 3-6 based on occupational status of parents. Children whose parents were artisans had a mean score of 58.77 with a standard deviation of 25.95. Children whose parents were in business had a mean score of 67.44 with a standard deviation of 23.26; giving a mean artisan/business difference of 9.17 in favour of children whose parents are in business. Children whose parents were in paid employment had a mean score of 81.21 with a standard deviation of 19.21, while children whose parents were artisans had a mean of 58.77 and a standard deviation of 25.95. This gave paid

employment/artisan mean difference of 22.44 in favour of children from parents in paid employment.

A corresponding hypothesis formulated to further address the research question is:

Hypothesis Two

Concept learning achievement of children aged 3-6 will not differ significantly based on occupational status of parents.

Table 4 One-way ANOVA on Concept Learning Achievement of Children Aged 3-6 Based on Occupational Status of Parents

	Sum of squares	df	Mean squire	F	Sig.
Between groups	14680.268	2	7340.134	15.639	.000
Within groups	91990.425	196	469.339		
Total	106670.69	198			

The results presented in Table 4 show that concept learning achievement of children aged 3-6 did not differ significantly based on occupational status of parents. The calculated F-value of 15.639 in respect of occupational status of parents as a factor in learning of concepts by children aged 3-6 has a probability value of .000 and therefore significant at .05 levels of significance. Therefore, the null hypothesis which states that concept learning achievement of children aged 3-6 will not differ significantly based on occupational status of parents is rejected.

It was necessary to determine the direction of difference among the occupation status. A post hoc multiple comparison using Scheffe test was conducted. The summary of the results is presented in Table 5.

Table 5: Results of Scheffe test for Concept Learning Achievement of Children Aged 3-6 Based on Occupational Status Mean Scores of Parents

Occupation of parents	(J) Occupation of parents	Mean difference (I-J)	Std error	Sig.
Artisan	Business	-9.17273	4.77031	.160
	paid employment	-22.44693*	4.49459	.000
Business	Artisan	9.17273	4.77031	.160
	Paid employment	-13.27420*	3.41583	.001
paid employment	Artisan	22.44693*	4.49459	.000
	Business	13.27420*	3.41583	.001

The mean difference is significant at the .05 level

The results in Table 5 indicate that there is no significant difference between the children of artisans and children of parents in business. This is shown by the mean difference of -9.17273 which has a probability value of .160 and therefore not significant at .05 level of significance. The result however shows that there is significant difference between the children of artisans and children of parents in paid employment. This is shown by the mean difference of -22.44693 which has a probability value of .000 and therefore significant at .05 level of significance. The result also indicates that there is significant difference between the children of parents in business and

children of parents in paid employment. This is shown by the mean difference of -13.27420 which has a probability value of .001 and therefore significant at .05 level of significance.

Research Question Three

What is the concept learning achievement of children aged 3-6 based on housing location?

Table 6: Mean and Standard Deviation Scores on Concept Learning Achievement of Children Aged 3-6 Based on Housing Location

Place of Residence	No	Mean	SD
Rural	71	56.08	21.99
Urban	128	83.05	17.67
Total	199	73.43S	23.21

Data presented in Table 6 show the mean and standard deviation scores of respondents on concept learning achievement of children aged 3-6 based on housing location. Children whose parents dwell in rural areas had a mean score of 56.08 with a standard deviation of 21.99. Those children whose parents dwell in the urban areas had a mean score of 83.05 with a standard deviation of 17.67. This gave a mean rural/urban difference of 26.97 in favour of the children whose parents dwell in the urban areas.

A corresponding hypothesis formulated to further address the research question is:

Hypothesis Three

Concept learning achievement of children aged 3-6 will not differ significantly based on housing location and condition.

Table 7: t-test Statistic on Concept Learning Achievement of Children Aged 3-6 Based on Housing Location and Condition

				t-test for equality of means		
Nature of parents	Housing/Location	X	SD	df	t	Sig. 2-tailed
	Urban	56.08	21.99	197	-9.435	.000
	Rural	83.05	17.67			

The result presented in Table 7 shows that concept learning achievement of children aged 3-6 did not differ significantly based on housing location and condition. The calculated t- value of -9.435 in respect of housing/location as a factor in the study has a probability value of .000 and therefore significant at .05 levels of significance. Consequently, the null hypothesis which states that concept learning achievement of children aged 3-6 will not differ significantly based on housing location and condition is rejected.

Research Question Four

What is the concept learning achievement of children aged 3-6 based on parents-child interaction?

Table 8: Mean and Standard Deviation Scores on Concept Learning Achievement of Children Aged 3-6 Based on Parent-Child Interaction

Nature of interaction	No	Mean	SD
Interact freely	178	76.28	21.77
Not freely	21	49.29	21.32
Total	199	73.43	23.21

Data presented in Table 8 show the mean and standard deviation scores on learning of concepts of children aged 3-6. Children who had free interaction with their parents had a mean score of 76.28 with a standard deviation of 21.77, while children who did not have free interaction with their parents had a mean score of 49.29 with a standard deviation of 21.32. This gave a mean free/not free interaction difference of 26.99 in favour of children who interacted freely.

A corresponding hypothesis formulated to further address the research questions 8:

Hypothesis Four

Concept learning achievement of children aged 3-6 will not differ significantly based on parent ï child interaction.

Table 9: t-test statistic on Concept Learning Achievement of Children Aged 3-6 Based on Parents-child Interaction

		t-test for equality of means				
Nature of Parent-Child Interaction	X	SD	df	t	Sig. 2-tailed	
Interact freely	76.28	21.77	197	5.384	.000	
Not freely	49.29	21.32				

The result presented in Table 9 shows that concept learning achievement of children aged 3-6 did not differ significantly based on parent ï child interaction. The calculated t-value of 5.384 in respect of nature of interaction between parent and child as a factor in the study has a probability value of .000 and therefore significant at .05 levels of significance. Therefore, the null hypothesis which states that concept learning achievement of children aged 3-6 will not differ significantly based on parent ï child interaction is rejected.

Research Question Five

What is the concept learning achievement of children aged 3-6 based on gender?

Table 10: Mean and Standard Deviation Scores on Concept Learning Achievement of Children Aged 3-6 Based on Gender

Gender of Respondents	No	Mean	SD
Male	107	73.96	21.27
Female	92	72.80	25.39
Total	199	73.43	23.21

The data presented in Table 10 indicate the mean score and standard deviation scores of children on concept learning achievement of children aged 3-6 based on gender. The data indicate that male children had a mean score of 73.96 with a standard deviation of 21.27, while the female children had a mean of 72.80 with a standard deviation of 25.39. This gave a mean male/female mean difference of 1.16 in favour of the male children.

A corresponding hypothesis raised to further address the research question is:

Hypothesis five

Concept learning achievement of children aged 3-6 will not differ significantly based on gender.

Table 11: t-test Statistic on Concept Learning Achievement of Children Aged 3-6 Based on Gender.

		t-test for equality of means				
Gender of Respondents		X	SD	df	t	Sig. 2-tailed
	Male	73.96	21.27	197	.350	.727
	Female	72.80	25.39			

The results presented in Table 11 show that Concept learning achievement of children aged 3-6 will not differ significantly based on gender. The calculated t-value of .350 in respect of gender has a probability

value of .727 and therefore not significant at .05 levels of significance. Consequently, the null hypothesis which states that concept learning achievement of children aged 3-6 will not differ significantly based on gender is upheld.

Summary of Major Findings

The result presented in this chapter highlighted the following major findings

1. Concept learning achievement of children aged 3-6 differed significantly based on educational status of parents.
2. Concept learning achievement of children aged 3-6 differed significantly based on occupational status of parents.
3. There was significant concept learning achievement difference of children aged 3-6 years based on housing location and condition.
4. There was significant concept learning achievement difference of children aged 3-6 years based on parent-child interaction.
5. Concept learning achievement of children aged 3-6 did not differ significantly based on gender.

CHAPTTR FIVE

DISCUSSION OF RESULTS, CONCLUSSIONS AND RECOMMENDATIONS

This chapter discusses the major findings of the study and their educational implications. It also highlighted the conclusions, recommendations, areas for further study and the summary of the study.

Discussion of findings:

The findings of this study were discussed under the following headings:

1. Concept learning achievement of children aged 3-6 based on educational status of parents
2. Concept learning achievement of children aged 3-6 based on occupational status of parents.
3. Concept learning achievement of children aged 3-6 based on housing location and condition.
4. Concept learning achievement of children aged 3-6 based on parent-child interaction.
5. Concept learning achievement of children aged 3-6 based on gender.

Concept learning achievement of children aged 3-6 based on educational status of parents

The result of this study reveals that concept learning achievement of children aged 3-6 differed significantly based on educational status of parents. The literate parents had significantly higher mean score than the illiterate parents.

This result is in line with the findings of some earlier research in other cultures on the effect of educational status of parents on the academic achievement of their children. For instance, Akpochafo (1999) reported on the level of parent education and the effect it has on the childrenôs educational achievement and argued that educated parents encourage their children to go to school early, guide them to good school and encourage them on to the best professions. He went further to say that the parents give them financial assistance, help the children with their assignment at home or send them for extra-mural classes, show interest in their school work and take them out on excursion to places of interest.

Similarly, Ogalabu (1997) while comparing the academic performance of children in the private fee paying schools with those at the public school found that the poor performance of children in public school should not always be blamed on the teachers who are always regarded as lazy and inefficient in their jobs. Instead, the contributions that educated and

the rich parents make to the progress of their children should be taken into consideration.

Another study was conducted by Dabo (2002) on the effect of parental socio-economic background on the studentsô academic performance in selected secondary schools in Bauchi State. The purpose of the study was to collect and analyze information on the effect of socio-economic background on studentsô academic performance in selected secondary schools in Bauchi State. The level of parental education was found to affect studentsô academic performance as children from highly educated parents tend to achieve and perform better academically than those from low educated parents. Parental support and encouragement were found to be related to studentsô achievement and academic performance in schools. Parental reward was also found to affect studentsô academic performance as children rewarded by parents performed academically better in schools than those unrewarded.

One can reason that childrenôs educational outcomes vary significantly with their parentsô educational status. Differences in outcomes with parental background emerge early at the pre-school level and are reinforced in childhood and the teenage years through tertiary education. Therefore, the more educated parents are, the more efficient use of time

spent with the child. Education of parent may increase bargaining power within the household, giving them more control over family income, thus increasing learning and home investment in the child (Johnson, Ganzeboon & Trieman, 2005).

The argument may also follow that if a parentôs level of education is high, that is an indication that such a parent could be fully conversant with the school social system, which could be related to the performance of the child. Such a parent would want to provide the necessary instructional materials such as, toys, books, picture, colours, and other learning materials.

Concept learning achievement of children aged 3-6 based on occupational status of parents

The result of this study shows that concept learning achievement of children aged 3-6 differed significantly based on occupational status of parents. The direction of the significance is in favour of children of parents in paid employment, who had the highest mean score of 81.21 as against the mean scores of 58.77 and 57.96 for the children of artisans and those in business respectively.

The result of this study supports the study of Okunrotifa as cited by Enoh (2003) which found that parental income and occupation are the main determinants of the individualôs social class. The type of occupation which one is engaged in determines, to a large extent, his income and his ability to

provide fund and other necessary basic facilities for a growing child which will enhance his learning and performance in school.

Similarly, Blau and Duncan cited in Wegener (1997) tested the correlation between sonôs occupational status with fatherôs occupational status. Their studies were limited to make and show two aspects of a personôs social class of origin: fatherôs educational achievement and occupational prestige; both ascriptive status traits (fixed at birth). The purpose of the study was to test whether ascriptive or achieved characteristics directly affected status attainment of the child. Higher fatherôs educational achievement could yield higher childôs educational achievement due to higher expectations and more support for attainment. Higher fatherôs occupational prestige could increase educational expectations for the child as well as providing financial resources to support higher education. When a child is ashamed of the parentôs occupation, because of the level of work done or kind of clothes demanded by the work, the childôs attitude will be adversely affected.

Concept learning achievement of children aged 3-6 based on housing location and condition

The result of this study shows that concept learning achievement of children aged 3-6 based on housing location and condition. Children whose

parents were living in urban areas had a significantly higher mean score than those living in rural areas.

The result of this study supports the finding of Bloom, cited in Mangal, (2011) which found that the childôs home environment is usually important in the formation of cognitive abilities, that is, measured intelligence; his creativity, the manner in which he conducts interpersonal relationship and his level of thinking. He went further to explain that acquisition and proficiency in learning is made possible by environmental influences.

The above finding may lead one to opine that when the environment is rich and is similar to what is found in the school, the child adjusts quickly in school. On the other hand, a child from a disadvantaged environment is handicapped in that he does not have enough facilities to prepare him/her for school. This explains why such a child finds it extremely difficult to adjust when he goes to school. Akpochafo (1999) also supported the view by adding that parents from rich home environment provide radio, television set, and materials for reading and relaxation, which facilitate effective learning.

Concept learning achievement of children aged 3-6 based on parent-child interaction

The result of this study reveals that there was significant concept learning achievement difference of children aged 3-6 years based on nature of parent-child interaction. The children who interacted freely had a significantly higher mean score than those who did not interact freely.

This result agrees with the finding of Sarah Harkness (1998) which studied the role of mothers and siblings in the first language socialization of Kokwestern children in Kipsipis community in Kenya and found that children who spent more time talking to adults were linguistically more advanced in relation to their age than their less talkative companions. Parent-child interaction seems to encourage more practice which in turn is associated with faster progress. This result also agrees with the finding of Durojaiye (1998) that those children who interact very little with their parents and adults use mostly the instrumental and regulatory models of language; they rarely use the imaginative model of language.

It could be noted that when children get to the nursery school, they become members of a new social group; they meet with different individuals with varying background and race. The family socializes the child and the child learns his first informal lessons at home before getting to formal schooling. Therefore, how he relates to others may help the child to learn

certain concepts which also depends on how he was molded or related to at home.

Concept learning achievement of children aged 3-6 based on gender

The result of this study shows that Concept learning achievement of children aged 3-6 did not differ significantly based on gender. There was no significant gender difference in the mean scores of male and female children on the influence of gender on learning of concepts by children aged 3-6.

The result of this study disagrees with the finding of Martin, Wood and Little (1999) which indicated that children learn at a very early age what it means to be a boy and girl in our society. Through a myriad of activities, opportunities, encouragement, discouragement, overt behaviours, covert suggestions, and various forms of guidance, children experience the process of gender socialization. It is difficult for a child to grow to adulthood without experiencing some form of gender bias or stereotyping, whether it is the expectations that boys are better than girls at math or the idea that only females can nurture children. As children grow and develop, the gender stereotype they are exposed to at home are reinforced by other elements in their environment and are thus, perpetuated throughout childhood and on into adolescence.

The result also differs from the opinion of Kaplan (1999), Lauer and Lauer (1999) and Santrock (1994) which showed that a childôs earliest exposure to what it means to be male or female comes from parents. Their study found that parents have differential expectations of sons and daughters as early as 24 hours after birth.

Among some tribes in Nigeria, parents frown at the formal education of their daughters. Such parents believe that investments on the formal education of their daughters are seen as reckless exercises in financial management as their daughters will eventually marry and thereafter take up their husbandôs identity. In some parts of Northern Nigeria, parents are yet to see any reason in sending their daughters to school for after all; they are not going to work with the education they acquired. Parental attitudes towards their children have a strong impact on the childôs developing sense of self and self-esteem towards learning, with parental warmth and support being key factors for the childôs learning.

Gender is a socio-economic variable used to analyze roles, responsibilities, constraints, opportunities and needs of men and women in any context. It is essentially about relations between men and women. There are obvious constraints in the education of the girl-child that must be surmounted. One of such constraints is the trado-religious bigotry in various

parts of the country that makes the education of the girl-child to be considered insignificant (Kehinde, 2001).

Conclusions

From the findings of the study and the discussions that followed, the following conclusions were made:

1. Concept learning achievement of children aged 3-6 differed significantly based on educational status of parents. The literate parents had higher mean score than the illiterate parents. Therefore, educational status of parents is an important factor in the upbringing of children.
2. Concept learning achievement of children aged 3-6 differed significantly based on occupational status of parents. The direction of the significance is in favour of those in paid employment, who had the highest mean score among the artisans and those in business. Would-be parents could be more careful in their career choice.
3. There was significant concept learning achievement difference of children aged 3-6 years based on housing location and condition. Children who were living in urban areas had a higher mean score than those living in rural areas. Therefore, parents should be mindful about their housing location as the nature of the environment where the children interact could affect their upbringing.

4. There was significant concept learning achievement difference of children aged 3-6 years based on parent-child interaction. The children who interacted freely had a higher mean score than those who did not interact freely. Therefore, parents should allow their children to interact freely with them.
5. Concept learning achievement of children aged 3-6 differed significantly based on gender. There was no gender difference in the mean scores of male and female children on the influence of gender on learning of concepts by children aged 3-6 years. Therefore, parents should avoid gender discrimination among their children.

Educational Implications of the Findings

The results of this study have obvious educational implications**.** The results of this study have provided empirical evidence in respect of parental background in terms of educational status, occupational status, housing location and condition, parent-child interaction as well as gender and the learning of concepts by 3 ï 6 year old children in Plateau State. This finding suggests the need for parents to show positive attitude towards the education of their children by providing for them. This demands that in providing for their children, parents should not only concern themselves about the material needs of the children but also allow their children to interact freely with

them. The fact that learning of concepts by children aged 3-6 years differed significantly based on educational status of parents and that literate parents had significantly higher mean score than the illiterate parents suggests that the poor performance of children in both public and private schools should not always be blamed on the teachers who are always regarded as lazy and inefficient in their jobs. Instead, the contributions that educated and the rich parents make to the progress of their children should be taken into consideration.

The fact that learning of concepts by children aged 3-6 years differed significantly based on occupational status and that the direction of the significance is in favour of children whose parents were in paid employment, who had the highest mean score suggests that parental occupation is one of the variables affecting childrenôs learning in school. The result also supports the view that poorly paid parents have difficult time sending and maintaining their children in school, unlike parents with high income who are better equipped. The result also has implications on childrenôs attitude towards education. This may be informed by the fact that when a child is ashamed of the parentôs occupation, because of the level of work done or kind of clothes demanded by the work, the childôs attitude could be adversely affected.

The fact that learning of concepts by children aged 3-6 years differed significantly based on housing location and that children who were living in urban areas had a significantly higher mean score than those living in rural areas suggests that a child is mostly influenced by his environment. The childôs home environment is usually important in the formation of cognitive abilities, that is, measured intelligence, his creativity, the manner in which he conducts interpersonal relationship and his level of thinking. Therefore, acquisition and proficiency in learning could be made possible by environmental influences.

Illiterate parents may not provide conducive atmosphere for their children. The incentives to learn may not be provided. In such homes the children could be burdened with so much work that they have little time to rest and study. When the environment is rich and is similar to what is found in the school, the child adjusts quickly in school. On the other hand, a child from a disadvantaged environment is handicapped in that he does not have enough facilities to prepare him/her for school. This explains why such a child could find it extremely difficult to adjust when he goes to school. This view could also be supported by adding that parents from rich home environment provide radio, television, set materials for reading and relaxation, which facilitate effective learning.

The result of this study shows that learning of concepts by children aged 3-6 years differed significantly based on parent-child interaction and that the children who interacted freely had a significantly higher mean score than those who did not interact freely. This suggests that parent-child interaction could encourage more practice which in turn is associated with faster progress. Parent-child interaction could be most important in the pre-school years where the foundation of attitudes of questioning, curiosity and investigation is first developed before being carried over to school. Children who interact very little with their parents and adults are likely to use instrumental and regulatory models of language; they rarely use the imaginative model of language. The family socializes the child and the child learns his first informal lessons at home before getting to formal schooling. Therefore, how the child relates to others depends on how such a child was molded or related to at home.

The result of this study indicates that learning of concepts by children aged 3-6 years differed significantly based on gender. This implies that children aged 3-6 years could be exposed to learning of concepts without gender discriminations as the two levels of gender benefit equally from learning of concepts.

Recommendations

Based of the findings of the study and their educational implications, the following recommendations are made:

1. Concept learning achievement of children aged 3-6 differed significantly based on educational status of parents and literate parents had higher mean score than the illiterate parents. Therefore, the poor performance of children in both public and private schools should not always be blamed on the teachers who are always regarded as lazy and inefficient in their jobs. Instead, the contributions that educated and the rich parents make to the progress of their children should be taken into consideration.
2. Concept learning achievement of children aged 3-6 differed significantly based on occupational status of parents and the direction of the significance is in favour of those parents in paid employment, who had the highest mean score. Therefore, emphasis should be placed on parental occupation as one of the variables affecting childrenôs learning in school since poorly paid parents have difficult time sending and maintaining their children in school, unlike parents with high income who are better equipped.
3. There was significant concept learning achievement difference of children aged 3-6 years based on housing location and condition and

children who were living in urban areas had a higher mean score than those living in rural areas. Therefore, the childôs home environment should be seen as being important in the formation of cognitive abilities, that is, measured intelligence, his creativity, the manner in which he conducts interpersonal relationship and his level of thinking. Both literate and illiterate parents should try to provide conducive atmosphere for their children in their homes. The incentives to learn should be provided in homes and the children should not be burdened with so much work that they have little time to rest and study. The home environment should be rich and similar to what is found in the school, so that the child could adjust quickly in school.

4. There was significant concept learning achievement difference of children aged 3-6 years based on parent-child interaction and the children who interacted freely had a higher mean score than those who did not interact freely. Therefore, emphasis should be placed on parent-child interaction as it could encourage more practice which in turn is associated with faster progress. Parent-child interaction should be most important in the pre-school years where the foundation of attitudes of questioning, curiosity and investigation is first developed before being carried over to school.

5. Concept learning achievement of children aged 3-6 did not differ significantly based on gender. Therefore, children aged 3-6 should be exposed to learning of concepts without gender discriminations as the two levels of gender benefit equally from learning of concepts.

Limitations of the Study

1. The fact that some of the children were not maturationally ready to respond to some of the aspects of the achievement test may have limited the generalability of the result of the finding of the study.
2. The average African child may be inclined to present him or herself in a positive image, therefore, realistic responses may not have been obtained from Nigerian pre-primary school children in this context.

Suggestions for Further Studies

Based on the finding of this study, the following recommendations for further studies are made:

1. Replication of this study in other parts of the country to find out the effect of parental background on the learning of concepts by 3 ï 6 year old children.

2. Examination of the effect of parental background factors on learning by children of other ages outside 3-6.

Summary of the Study

This study sought to identify the effect of parental background on the learning of concepts by 3 ï 6 year old children in Plateau State of Nigeria. This desire was motivated by the need to determine the extent parental background affects the learning of concepts by 3 ï 6 year old children

To carry out the investigation of the problem of this study, the following research questions guided the study:

1. What is the concept learning achievement of children aged 3-6 based on educational status of parents?
2. What is the concept learning achievement of children aged 3-6 based on occupational status of parents?
3. What is the concept learning achievement of children aged 3-6 based on housing location/condition?
4. What is the concept learning achievement of children aged 3-6 based on child interaction?
5. What is the concept learning achievement of children aged 3-6 based on gender?

To further help in answering the research questions, the following null hypotheses were formulated and tested at 0.05 levels of significance:

1. Concept learning achievement of children aged 3-6 will not differ significantly based on educational status of parents.
2. Concept learning achievement of children aged 3-6 will not differ significantly based on occupational status of parents.
3. Concept learning achievement of children aged 3-6 will not differ significantly based on housing location and condition.
4. Concept learning achievement of children aged 3-6 will not differ significantly based on parent ï child interaction.
5. Concept learning achievement of children aged 3-6 will not differ significantly based on gender.

Relevant literature was reviewed and the literature search indicated that parental background has effect on the learning of concepts by 3 ï 6 year old children. These studies were however foreign as no known such study has been done on identification of the influence of parental background on the learning of concepts by 3 ï 6 year old children in Plateau State of Nigeria.

The research design adopted in this study was causal comparative design. A total of 200 (107 males and 93 females) 3 ï 6 years old children in Plateau State were sampled and used for study. Multi-stage approaches were employed in drawing the sample for the study. To compose this sample,

probability proportions to size (PPS) in multi-stage cluster-sampling design was used.

The researcher administered the demographic questionnaire and concept learning achievement tests for 3 ï 4 and 5 ï 6 year old children with the help of the regular class teachers who served as the research assistants. The research instrument was Concept Learning Achievement Tests for 3 ï 4 year old children and Concept Learning Achievement Tests for 5 ï 6 year old children.

The data obtained through the administration of demographic questionnaire and concept learning achievement tests for 3 ï 4 and 5 ï 6 year old children were analyzed using descriptive and inferential statistics. The research questions were answered using mean and standard deviation while the null hypotheses were tested using t-test and ANOVA. Multiple regressions were conducted using Scheffe test to further determine the mean difference in the occupational status of parents.

The following findings were made:

1. Concept learning achievement of children aged 3-6 differed significantly based on educational status of parents. The literate parents had significantly higher mean score than the illiterate parents.

2. Concept learning achievement of children aged 3-6 differed significantly based on occupational status of parents. The direction of the significance is in favour of those in paid employment, who had the highest mean score among the artisans and those in business.
3. There was significant concept learning achievement difference of children aged 3-6 years based on housing location and condition. Children who were living in urban areas had a significantly higher mean score than those living in rural areas.
4. There was significant concept learning achievement difference of children aged 3-6 years based on parent-child interaction. The children who interacted freely had a significantly higher mean score than those who did not interact freely.
5. Concept learning achievement of children aged 3-6 did not differ significantly based on gender. There was no significant gender difference in the mean scores of male and females on the effect of gender on learning of concepts by children aged 3-6.

The findings of the study were elaborately discussed and their educational implications and recommendations highlighted. Suggestions for further research and limitations of the study were also identified.

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APPENDIX A

CONCEPT LEARNING ACHIEVEMENT TEST

General introduction

Kindly take time to read each question or statement carefully before indicating your responses. Tick ( ) in the boxes provided where appropriate or fill in gaps where necessary.

Part One (Parental Background)

1. Age of the Child.....
2. Marital Status of Parents; (a) married ( ) (b) Single ( ) (c) Divorced ( ) (d) Widowed ( )
3. Educational status of parents; (a) Literate ( ) (b) Illiterate ( )
4. Occupation of parents: State:.....
5. Place of residence: (a) Rural ( ) (b) Urban ( )
6. Do you interact freely with your child at home? (a) Freely ( ) (b) Not at all ( )

APPENDIX II
PART TWO

Ages 3 – 4
First Test
Identification

Identify parts of the body. (The children will be asked to identify various parts of the body on a large paper doll).

Test Two

Concept Learning Achievement Test on Alphabets. Children will be asked to identify capital letters and small letters.

A B C D E F G H I J K

L M N O P Q R S T U V

W X Y Z

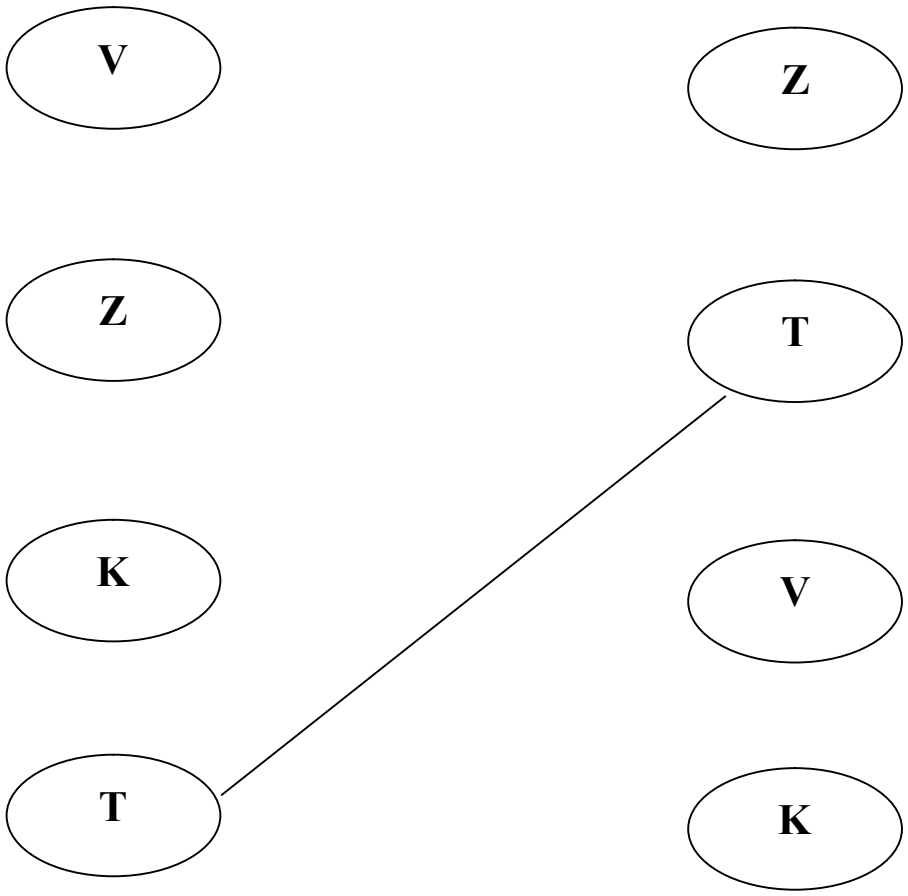
a b c d e f g h i j k

l m n o p q r s t u v

w x y z

Test Three

Concept of identification and matching of letters. The children will be asked to identify the letters and match the correct letters.



Test Four

Concept of matching letters with objects

A stands for Apple.

B stands for what?

C stands for what?

D stands for what?

E stands for what?

F stands for what?

G stands for what?

H stands for what?

I stands for what?

J stands for what?

K stands for what?

L stands for what?

M stands for what?

N stands for what?

O stands for what?

P stands for what?

Q stands for what?

R stands for what?

S stands for what?

T stands for what?

U stands for what?

V stands for what?

W stands for what?

X stands for what?

Y stands for what?

Z stands for what?

Marking Guide for 3 – 4 Years on Concept Achievement Test

S/No	Age	Sex	Test 1 To Identify Parts of the Body	Test 2 Identification of Capital Letters & Small Letters	Test 3 Identifying Letters & Matching the Correct Letters	Test 4 Matching Letters with Objects	Total
			25 Marks	25 Marks	25 Marks	25 Marks	100

Concept of Learning Achievement Test for 5 – 6 Years Old Children

Test One

Foods	**Carbohydrate**	**Protein**	**Fat & Oil**	**Mineral**	**Vitamin**
Rice					
Acha					
Apple					
Oranges					
Cabbage					
Lettuce					
Maize					
Mango					
Dog Meat					
Beef					
Guinea Corn					
Yam					
Irish Potatoes					
Millet					
Soya Oil					
Palm Oil					
Water Melon					
Guava					
Pineapple					
Chicken					

Mention four (4) uses of food.

Test Two

Classification of domestic and wild animals. A picture of these animals will be presented.

Test Three

Concept of the five sense organs and their uses.

Test Four

Concept of fruits and vegetables. Chicken will be asked to classify fruits one side and vegetable on the other side.

APPENDIX B

VALIDATION OF CONCEPT LEARNING ACHIEVEMENT TEST

Specific suggestions for modification

Source	Suggested modification	Action taken
Item 5 Item for ages 3-4 years	Educational Status to be classified into literate and illiterate Replace the European child with the African child.	Suggestion accepted to read literate and illiterate parents. Suggestion accepted.
Items for 3-4 years Test Three	Items to be indicated as they will appear in the test	Items indicated as they appeared in the test
Items for 5-6 years Test one	Items to be typed	Items typed as suggested.
Items for 5-6 years Test two	Animals that are common in the environment to be looked for	Animals that are not common in the environment were replaced with those animals that are common in the childrenôs environment.
Items for 5-6 years Test four	Test to be modified to include children who are not in school.	Concept of simple mathematics multiplication changed to concept of fruits and vegetables. The suggested modification was done and re-submitted for approval and signature

APPENDIX C

CALCUALATION OF INTERNAL CONSISTENCY RELIABILITY ESTIMATE OF CONCEPT ACHIEVEMENT TESTS FOR CHILDREN 3-4 YRS AND 5-6YRS

Internal Consistency Reliability Estimate of Concept Achievement Test for Children 3-4 yrs using;

K ï R 20 formula

K ï R 20 = rxx =

When n = number of items in the test.

P = proportion of people who answered item correctly (for example, if on item 1, 10 of 30 people answered the item correctly, p for this item would be $\frac{10}{30}$ = 33)

q = proportion of people who answered item incorrectly

(q = 1 ï p)

pq = variance of a single item scored dichotomously (right or wrong).

$\sum$ = summation sign indicating that pq is summed over all items.

Sx^2 = variance of the total test.

$\overline{X}$ = mean of the total test.

Number of items in the test = 75

Calculated $\sum$ □□ = 7.46

Calculated Sx^2 = 26.48

Rxx = $\frac{75}{75 - 1}$ □ □□.□□ / □□.□□ □

= 1.01 x 0.72

= **0.73**

Internal Consistency Reliability Estimate of Concept Achievement Children Aged 5 ï 6 yrs using;

K ï R 20 yrs using;

K ï R 20 = rxx = $\frac{n}{n-1}\left[1-\frac{\sum pq}{Sx^2}\right]$

When n = number of items in the test

P = proportion of people who answered item correctly.

q = proportion of people who answered item incorrectly (q = 1 ï p)

pq = variance of a single item scored dichotomously (that score either right or wrong).

$\sum$ = summation sign indicating that pq is summed over all items.

Sx^2 = variance of the total test.

$\bar{X}$ = mean of the total test.

Number of items in the test = 43

$\sum$ pq = 9.11

Calculated Sx^2 = 31.74

rxx = $\frac{43}{43-1}\left[1-\frac{9.11}{31.74}\right]$

= 1.02 x 0.713

= **0.72**