

Play and Cognitive Development of Primary School Pupils in Uyo Local Government Area

Udo, Simeon Anike, Imaobong David Akpan, Ukpong, Jesse Cletus, Ekanem Samuel Michael

Educational Psychology, University of Uyo, Uyo, Akwa Ibom State, Nigeria

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ABSTRACT

The study examined the influence of play on cognitive development of primary school pupils in Uyo local government area. Ex-post facto research design was adopted for the study. and the population of the study consisted of 10537 pupils in all the public primary schools in Uyo Local Government. A sample size of 150 was selected using a simple sampling technique. A structured questionnaire titled Play and Cognitive Development Questionnaire (FCDQ), developed on a four point likert scale was used as instrument of data collection. The instrument was validated by experts in test and measurement and a reliability coefficient index of 0.76 was obtained using Cronbach Alpha statistics. Statistical mean and standard deviation was used in answering research questions while dependent t-test analysis was used in testing the null hypotheses at .05 level of significance. The results indicated that social play, pretence play and associative play significantly influence cognitive development of primary school pupils in Uyo Local Government Area. it was recommended among others that play time should be adequately integrated in the teaching and learning process design for primary school pupils.

INTRODUCTION/ LITERATURE REVIEW

Studies on the role of play in child development are replete with much attention given to physical, social and cognitive domains of development. Although, studies are not localized, especially in the current study area, findings have demonstrated that play occupies a significant place in children's overall development. According to Bodrova and Leong (2015) play is the activity that is most conducive to development in young children" Play gives children many opportunities to explore the different aspects of their world, interact with others, problem solve, work through different emotions, and practice emerging skills (Copple and Bredekamp, 2009). More generally, play satisfies a basic human need to express imagination, curiosity and creativity, which are key resources in a knowledge-driven world. Accordingly, UNESCO (2018) reported that play sets the foundation for the development of critical social and emotional knowledge and skills. Through play, children learn to forge connections with others, and to share, negotiate and resolve conflicts, as well as learn self-advocacy skills. Play also teaches children leadership as well as group skills.

Earlier, Vygotsky offered additional insight into childhood play, he asserted that "play creates a zone of proximal development in the child. In play, the child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development". In recognition of the relevance of play to childhood development, the National Policy on Education 2004 categorically stated that government should ensure that the main method of teaching at the early childhood level should be through play.

Children's development involves not only physical and emotional development, but also social and cognitive development. Orji (2013) has argued that cognitive development is the construction of thought processes, including remembering, problem-solving, and decision-making, from childhood through adolescence to adulthood. He further posited that children's cognitive development, which includes creativity, discovery, language skills, verbal judgment and reasoning, symbolic thought and the ability to focus and control behaviour, are all heavily influenced by their play experiences (Orji, 2013).

At home and in the school environment, almost all children play with objects, engage in pretend or dramatic play and play game with rules. Constructive play is an organized form of play that is often goal oriented and thoughtful in which children use materials or objects to create something. It generally involves the manipulation, construction, and motion of objects in space (Oostermeijer, Boonen and Jolles, 2014). Although findings are inconsistent, numerous studies (Bjorklund, and Douglas-Brown, 2008; Levine, Ratliff, Huttenlocher, and Cannon, 2012) have demonstrated that constructive play activities contribute to the development of spatial ability, in specific mental rotation. Their Studies have revealed that children that are more interested in block play and reproducing complex block models perform better on spatial ability tasks. In contrast, Hanline, Milton and Phelps (2010) found no significant relationship between children's block building abilities and their mathematics scores, but a significant relationship with reading scores.

Pretence play can be defined as a type of play where children accept assigned roles, and then act out. It can be seen as a term that refers to everyday make-believe games that kids naturally enjoy (Maureen, 2003). Pretence play occurs when children adopt roles and use-make believes transformations to act out stories. In dramatic play, children bring existing skills and act of dramatic play in turn enhances these existing skills. The skill-set that develops through dramatic play are role playing use of materials, pretending, attention span, social skills and communication (Bosah, Obumneke-Okeke, Anyachebelu, 2015).

Game with rules is a level of play that imposes rules that must be followed by the players. It requires self-regulation by the children who play, so they can successfully follow the rules and curb their own personal ego needs. Games with rules are often characterized by logic and order, and as children grow older they can begin to develop strategy and planning in their game playing (Frost, Joe, Brown, Sutterby, and Thornton, 2004).

LITERATURE REVIEW

The Concept of Play

The definition of "play" is deeply embedded in human beings that can stem from our animalistic roots long time ago (Crain, 2010). Defining what constitutes as "play" in children is always a highly debated topic among scholars. Play is a universal language which every child understands, it is seen as a positive tool for holistic development in young children. Children love to play and learn a lot through play (Bosah, et'al, 2015).

Play is a perfect activity for normal development and growth of children in all aspects of life. It is especially useful in the all round development of the child in the cognitive, affective, and psychomotor domains of learning. According to Orji (2013) play is one of those activities children engage in as they grow and develop; it is essential to a child's health and contributes to the domain of development. Play increases affiliation with peers, releases tension, advances cognitive development, and stimulates exploration. Play refers to a range of voluntary, intrinsically motivated activities that are normally associated with pleasure and enjoyment (Uduchukwu, 2011).

The Children Health (2018) reported that play is the work of children. It consists of those activities performed for self-amusement that have behavioral, social, and psychomotor rewards. It is child-directed, and the rewards come from within the individual child; it is enjoyable and spontaneous. Play is a legitimate right of childhood, representing a crucial aspect of children's physical, intellectual and social development. Ahmed, Hussain, Batool, Sittar and Malik (2016) posited that play is the vital part, the vehicle by which youngsters impart, entertain, find out about their general surroundings, comprehend themselves as well as other people, manage their-issues, and practice a portion of the abilities they will use later on. Play helps children in cognitive development. As from above definition through play children learn about their environment and through play they discover their world. They know about new things. Play has fundamental means by which they learn new skills and management skills and also develop problem solving skills. Play also helps children in cognitive development in a number of ways. It helps children in their imaginary and memory which are essential in their thinking.

The Concept of Cognitive Development

This is the child's ability to learn and solve problems. For example, this includes a two-month-old baby learning to explore the environment with hands or eyes or a five-year-old learning how to do simple math

problems. Cognitive development takes place throughout the developmental stages of one's life. It is a process of constructing various thought processes that involved in remembering, problem-solving, and decision-making, from childhood through adolescence to adulthood.

Jean Piaget, a Swiss psychologist was the first to make a systematic study of cognitive development of child and explains how a child constructs a mental model of the world (McLeod, 2018). Indeed, this stage to stage changes that take place in the developmental stages is an integral part of Piagetian cognitive development.

Throughout the development, children react to their environment and actively involved in learning about their environment. The child's acquired knowledge gets composed in the schemas through schematization process. That starts from developing basic units of instruction that are an organized unit of past experiences and serve as a basis for understanding new ones. Nancy (2010) argued that cognitive development in preschoolers is characterized by much longer attention spans and short-term memory abilities, egocentrism and animism

There are three main cognitive abilities that are widely acknowledged when play in early childhood is concerned: problem-solving, self-regulation, and creativity. These three abilities are typically grouped into cognitive benefit due to the constant utilization of several processes, which may include recognition, classification, planning, monitoring and representation.

Social Play and Cognitive Development

Social Play is any play in which children of the same age interact with each other. The play is structured (meaning there are rules to follow) and it may incorporate elements of pretend or imagination. For example, two children playing house or a group of children playing a game of tag are both examples of social play. Social play begins in preschool and is crucial for developing social skills and establishing friendships. Through social play, children learn how to share, cooperate, take turns, and express emotions. Social play also promotes physical activity and moral reasoning.

According to Coplan, Rubin and Findlay (2017) social play is distinguish from other forms of play as it involves the notion of interaction with others. Social play occurs among dyads and larger groups. It occurs when the child (a) is motivated to engage others in playful activities; (b) is able to regulate emotional arousal; (c) possesses the skills necessarily to initiate interactions with another child, such that; (d) the social overtures are accepted in kind. Accordingly, social play comprises the associated constructs of social participation, social competence, and sociability, and typically involves two (or more) children participating in functional-sensorimotor, constructive, and dramatic activities, and games-with-rules. It also comprises active conversations between children as they go about interacting with each other, negotiating play roles and game rules (Coplan, et al, 2017).

According to Whiteman (2018) all play is considered social play if two or more children are interacting with each other (Gray, 2017). This type of play involves a lot of communication, agreeing with one another and developing relationships. Children learn to take turns, become aware of others' emotions, recognize others' needs and interact with peers and teachers in positive ways. Social play begins at two years old, but becomes more prominent in ages three through six. Between the ages of three and six, social play increases because children are becoming more aware of other children in their environment and are naturally drawn to play with other children and being to seek gratification from adults (Gray, 2017). During preschool, social play becomes a huge part of the day. When the children are playing in centers or participating in a group activity, interaction is occurring. It is crucial for teachers to allow children to try to communicate and interact without interruption of an adult. This is how children discover right from wrong as well as create and build relationships.

It is argued herein that social play provides a unique and important context for young children's social, social-cognitive, and emotional development, and that some forms of nonsocial play can reflect psychosocial mal-adaptation, whereas others may be developmentally benign. Social play has generally been regarded as a marker of social competence, positive adjustment, and well-being during the period of early childhood (Coplan, et al, 2017). The frequent production of social play during the preschool and kindergarten years is associated with the development of language skills, early literacy, creativity, theory of mind, self-regulation,

and school achievement (Singer & Lythcott, 2002; Whiteman, 2018). Moreover, observed social play in early childhood predicted positive feelings of self-worth and was negatively associated with feelings of loneliness in late childhood (Coplan, et al, 2017).

As children play they come into contact with other children as well as with objects. Playing with others requires that children learn to coordinate their behaviors in order for the play to continue in a cooperative manner. Children learn the give and take patterns of social play. Social play allows the individual to explore new combinations of behaviors and ideas within a psychologically safe milieu. Through social play, children develop behavioral 'prototypes' that may be used subsequently in more 'serious' contexts. Thus, play fosters creativity and flexibility.

Pretence Play and Cognitive Development

According to Bosah, et'al (2015) pretence play is the spontaneous imaginative role playing, taking place in early years during self-selected activity periods. Maureen (2003) opined that pretence play is a type of play where children accept assigned roles, and then act out. It refers to everyday make-believe games that kids naturally enjoy. Pretence play occurs when children adopt roles and use make-believe transformations to act out stories. In pretence play, children bring existing skills and act of pretence play in turn enhances these existing skills. The skill-set that develops through pretence play are role playing use of materials, pretending, attention span, social skills and communication (Bosah, Obumneke-Okeke, Anyachebelu, 2015).

In pretence play experience, children integrate emotions, thinking and motivation to establish natural connections critical to effective brain functioning (Lester, 2008). When they engage in pretence play, they use imagination and imitation which require complex cognitive or intellectual processes. The understanding that they have built through pretence play experience are symbolized by things, action plots and behaviours. Pretence play gives children opportunities to explore, talk to each other and solve problems. When children take on imaginary roles, it is often referred to as pretence play which supports development of the whole child because it involves the mind and body. In joint make believe/socio –dramatic play, children act out and respond to one another's feelings. Example, children gain control of fear arousing experience when they act doctor.

Empirical findings (Berk, 2005; Maureen, 2003) have revealed that pretence play can make important contributions to children early reading and writing development. The development of cognitive skills, including dispositions for learning, (such as curiosity and persistence) memory and thinking skills and language and literacy skills have strong links to play (Maureen, 2003). Berk (2005) reported that pretence play is an integral part of a well-rounded preschool programme as it is healthy for early childhood development. It allows children to experiment with purpose for literacy they have seen at home, to recognize that different tasks require texts to produce a wide variety of texts and to act out stories they have heard. By assuming this role, the child can switch from falling out of control to being in charge of the situation.

Through pretence play, children learn to assert themselves in a way to build their competence in later adult roles. The ability to experiment with different roles, problem solving and conflict resolution while promoting abstract thinking, helps the child's ability to develop, thereby contributing greatly to the holistic development of young children.

Associative Play and Cognitive Development

Associate play generally occurs around the 3-4 years and consists of each child engaging in a separate activity but with the assistance and cooperation of others. Associative play differs slightly to parallel play as whilst they are playing separately from one another, they are also involved with what the others are doing. A child in the associative stage plays with other children, however while they engage in play with others they are not yet at the stage to participate in groups. By this it means that they will play together in the same game/activity but not necessarily work together.

Children will begin to interact through talking, borrowing and taking turns with toys, but each child acts alone. The communication concerns the common activity generally confined to borrowing and loaning of play

materials. During associate play the more mature child soon emerges as the leader or organizer. All those engaged in the play are within the similar activity. With this type of play there is no division of labour, so there is no organization of the activity around materials, goal, or product, it is without that specific purpose.

According to Gray (2017) associative play promotes cooperation; improves socialization through working/playing with others; Problem solving. They will ask questions such as the How, What, Why; Facilitates the further development of language; Show more reasoning skills. They are developing friendships and preferences for playing with some. It is in this stage that they begin to make real friendships and start to work cooperatively together. It is generally during this stage that pretend play is at its height. Associative play' (playing in conjunction with) is followed by cooperative play in a group of one or more working together – at around 4+ years of age. Associative play allows children to interact with others, express their thoughts, and try out new ideas. It also promotes social growth and sharing (Coplan, et al, 2017).

Review of Empirical Studies

Levine, Huttenlocher and Cannon (2011) examined the relation between children's social play involving early puzzle play and their spatial skill. 53 children and parents were observed at home for 90 minutes every four months (six times) between the ages of two and four years. When children were four and a half years old, they completed a spatial task involving mental transformations of two-dimensional shapes. Children who were observed playing with puzzles performed better on this task than those who did not, controlling for parent education and income. Among those children who played with puzzles, frequency of puzzle play predicted performance on the spatial transformation task. The study revealed that social play helps children to acquire knowledge and information (such as colour names and word spelling), learn personal limits and social rules and promotes their imaginary power.

Whiteman (2018) conducted a study on social play and cognitive development of children. The study involved the population of nursery and primary school married female teachers who are parents in the area of the study. Multistage random sampling technique was adopted. Questionnaire was used for data collection and data were analyzed using means and t-test. Findings revealed that social play provides a unique and important context for the development of language skills, early literacy, creativity, self-regulation, and school achievement.

Bosah, et'al (2015) conducted a study on the utilization of dramatic play for realization of quality holistic development of Nigerian child. The research design was descriptive survey. Two research questions guided the study. A population of 50 Nursery School teachers from 10 nursery schools constituted the sample population of the study. The instrument for data collection was A-20 researchers developed questionnaire duly validated by experts in childhood education for the teachers. Mean values was used in answering the research questions. The researchers concluded that since play is children's language, the use of dramatic play should be encouraged in the nursery schools. Findings revealed that dramatic play enhances quality holistic development of the nursery school child. Based on the findings, the researchers recommended among others that dramatic play should be employed by teachers for teaching the preschoolers as stated in the National policy on education and that government should integrate dramatic play in early childhood curriculum and enforce its implementation via active supervision of nursery schools.

Zlang, (2017) investigated Pretend play has its unique roles and benefits in one's cognitive development. The relationship between pretend play and three cognitive abilities, problem-solving, self-regulation and creativity, are explored in this paper. Using the knowledge found in this research, some suggestions are provided to improve the teaching practice and curriculum of Chinese parents and teachers.

Coplan, et al (2017) investigated the relationship between associative play and development of cognitive skills by school children in Texas. The study was a longitudinal survey spanning from 2015 to 2017 and it consisted of a population of 2850 school children and 420 school teachers upon which a sample size of 350 (280 children and 40 teachers) were selected and studied. T-test statistics was used to analyze the data collected from the field. The results indicated that associative play allows children to interact with others, express their thoughts, and try out new ideas. It also promotes social growth and sharing.

Statement of the Problem

Early childhood is the most important period in the cognitive development of the child. Children through interactions with their parents, siblings, and adults acquire cognitive skills especially by way of imitation through folklore, tongue twisters, riddles and jokes, proverbs among others. These experiences with their immediate environment no doubt help them to socialize, learn their language, become creative and acquire problem solving skills.

However, observations have shown that children's play time has declined significantly as a result of too much focus on academic proficiency. Today, outdoor play is perceived as being too dangerous for children, so children are cooped up in their homes, bombarded by television, DVD and computer games and violent toys. These have resulted in the inability of children to utilize all their senses. Long hours of watch movies, and playing electronic games has resulted in the increasing aggressiveness among children as they tend to copy violent actions display on TV screen. The situation, Orji (2013) observed that Children now talk more of the movies they watch, the video games they play or the music they listen to, most times unsupervised by parents and professional caregivers. Long uninterrupted time for children to engage in plays either with themselves, parents or their peer groups using construction and manipulative toys has no doubt put the children's cognitive skills development in jeopardy.

Therefore, from the foregoing, the study will examine the influence of constructive play, dramatic play and game with rules play on the cognitive development of primary school pupils in Uyo local government area.

Purpose of the Study

The purpose of the study is to examine the influence of play on the cognitive development of primary school pupils in Uyo local government area.

Specifically, the study seeks to:

1. Assess the influence of social play on the cognitive development of primary school pupils in Uyo local government area.
2. Assess the influence of pretence play on the cognitive development of primary school pupils in Uyo local government area.
3. Assess the influence of associative play on the cognitive development of primary school pupils in Uyo local government area.

Research Questions

The following research questions will be raised to guide the study.

1. To what extent does social play influence cognitive development of primary school pupils in Uyo Local Government Area?
2. To what extent does pretence play influence cognitive development of primary school pupils in Uyo Local Government Area?
3. To what extent does associative play influence cognitive development of primary school pupils in Uyo Local Government Area?

Research Hypotheses

The following null hypotheses are formulated for the study and are tested at .05 level of significance.

1. There is no significant influence of social play on cognitive development of primary school pupils in Uyo Local Government Area
2. There is no significant influence of pretence play on cognitive development of primary school pupils in Uyo Local Government Area
3. There is no significant influence of associative play on cognitive development of primary school pupils in Uyo Local Government Area

Research Design

A survey research design will be adopted for this study. A survey research design according to Udoh and Joseph (2005) typically employs questionnaire and interviews in order to determine the opinions, attitudes, preferences and perceptions of persons of interest to the researcher. According to them, survey design studies samples drawn from the population of interest. This design is considered suitable for the study because, it allowed data to be collected through interview and it also allowed sample to be drawn from the population.

Area of the Study

The study will be conducted in Uyo Local Government Area of Akwa Ibom State. Uyo Local Government Area is one of the local government areas in Akwa Ibom State. Uyo Local Government Area occupies a landmass of approximately 362 km (140sq mi). Uyo is bounded by Abak, Itu, Uruan, Ibesikpo Asutan and Etinan Local Government Areas, in the south and Southeast by Uyo and Uruan Local Government Areas. Uyo Local Government Area is populated about 309,573 people. Out of this, 153,113 are male and 156,460 are female (2006 National Census). The area is rich in both natural and mineral resources such as fine sand, limestone, salt, gravel and clay. There are about 12 public secondary and 18 primary schools in Uyo Local Government Area.

Population of the Study

The population of the study will comprise of all parents and caregivers of pupils in Uyo Local government area.

Sample and Sampling Technique

The sample size of the study made up of 150 parents selected using a simple sampling technique.

Instrument for data collection

The study made use of a structured interview. The instrument will contain 15 items question made up of two sections, section A contained items on respondents' bio-data while section contained items on the impact of play on cognitive development.

Validity of Instrument

A face validation method will be adopted to measure the validity of the instrument.

Reliability of the Instrument

A test retest method of reliability will be used to test the internal consistency of the instrument. Cronbach Alpha will be used to determine the internal reliability of the instrument.

Procedures of Data Collection

A personal contact and direct delivery method of data collection will be adopted in the collection of data for the study.

Method of Data Analysis

The study will adopt statistical tools such as mean and standard deviation to answer research questions and dependent t-test to test the null hypotheses at .05 level of significance.

Presentation of the Results

Data collected from the field were coded into Statistical Package for Social Science (SPSS, version 22), analyzed and presented in tables using statistical mean and standard deviation in answering research questions and t-test in testing the null hypotheses

Research Question One:

To what extent does social play influence cognitive development of primary school pupils in Uyo Local Government Area?

Table 1: Mean and Standard Deviation of Influence of Social Play on Cognitive Development

(n=150)

Variables	\bar{X}	SD	Remarks
Social play	17.00	1.94	Accepted
Cognitive development	66.41	13.70	

Table 1 showed the mean and standard deviation of influence of social play on cognitive development. Social play recorded a mean score of 17.00 and a standard deviation of 1.94 while cognitive development recorded a mean score of 66.41 and a standard deviation of 13.70. Since the calculated mean is greater than 2.50 criterion score, it was accepted that, social play to a greater extent influence cognitive development of primary school pupils in Uyo Local Government Area.

Research Question Two:

To what extent does pretence play influence cognitive development of primary school pupils in Uyo Local Government Area?

Table 2: Mean and Standard Deviation of Influence of Pretence Play on Cognitive Development.

(n=150)

Variables	\bar{X}	SD	Remarks
Pretence Play	16.34	2.38	Accepted
Cognitive development	66.41	13.70	

Table 2 showed the mean and standard deviation of influence of pretence play on cognitive development. Pretence play recorded a mean score of 16.34 and a standard deviation of 2.38 while cognitive development recorded a mean score of 66.41 and a standard deviation of 13.70. Since the calculated mean is greater than 2.50 criterion score, it was accepted that, pretence play to a greater extent influence cognitive development of primary school pupils in Uyo Local Government Area.

Research Question Three:

To what extent does associative play influence cognitive development of primary school pupils in Uyo Local Government Area?

Table 3: Mean and Standard Deviation of Influence of Associative Play on Cognitive Development

(n=150)

Variables	\bar{X}	SD	Decision
Associative play	17.24	1.9	Accepted
Cognitive development	66.41	13.70	

Table 3 showed the mean and standard deviation of influence of associative play on cognitive development. Associative play recorded a mean score of 17.24 and a standard deviation of 1.9 while cognitive development recorded a mean score of 66.41 and a standard deviation of 13.70. Since the calculated mean is greater than 2.50 criterion score, it was accepted that, associative play to a greater extent influence cognitive development of primary school pupils in Uyo Local Government Area.

Test of Hypotheses

Hypothesis One

There is no significant influence of social play on cognitive development of primary school pupils in Uyo Local Government Area

Table 4: Summary of Dependent t-test Analysis of Influence of Social Play on Cognitive Development

Variable	N	Mean	SD	Paired Mean	Paired SD	t-value
Social play	150	17.00	1.94			
Cognitive development	150	66.41	13.70	49.41	13.73	44.08

$P < .05$; $df = 149$; Crit. $t = 1.95$

The analysis in Table 4 produced a t-value of 44.08. When compared to the critical t-value of 1.96 at .05 confidence level with 149 degrees of freedom, it was found to be greater. Based on this finding, the null hypothesis was rejected. This means that there is a significant influence of social play on cognitive development of primary school pupils in Uyo Local Government Area.

Hypothesis Two

There is no significant influence of pretence play on cognitive development of primary school pupils in Uyo Local Government Area

Table 5: Summary of Dependent t-test Analysis of Influence of Pretence Play on Cognitive Development

Variable	N	Mean	SD	Paired Mean	Paired SD	t-value
Pretence play	150	16.34	2.38			
Cognitive development	150	66.41	13.70	50.1	13.9	43.9

$P < .05$; $df = 149$; Crit. $t = 1.95$

The analysis in Table 5 produced a t-value of 43.9. When compared to the critical t-value of 1.96 at .05 significance level with 149 degrees of freedom, it was found to be greater. Based on this finding, the null hypothesis was rejected. Therefore, there is a significant influence of pretence play on cognitive development of primary school pupils in Uyo Local Government Area.

Hypothesis Three

There is no significant influence of associative play on cognitive development of primary school pupils in Uyo Local Government Area

Table 6: Summary of Dependent t-test Analysis of Influence of Associative Play on Cognitive Development

Variable	N	Mean	SD	Paired Mean	Paired SD	t-value
Associative play	150	17.24	1.9			
Cognitive development	150	66.41	13.70	49.17	13.20	45.61

$P < .05$; $df = 149$; Crit. $t = 1.95$

The analysis in Table 6 produced a t-value of 45.61. When compared to the critical t-value of 1.96 at .05 significance level with 149 degrees of freedom, it was found to be greater. Based on this finding, the null hypothesis was rejected. Therefore, there is a significant influence of associative play on cognitive development of primary school pupils in Uyo Local Government Area.

DISCUSSION OF FINDINGS

The findings of the study revealed a significant influence of social play on cognitive development of primary school pupils in Uyo Local Government Area. The findings also revealed that social play promote teamwork spirit, self-worth and communication skills. The findings of this study affirm the study of Coplan, et al, (2017) who found that social play in early childhood predicted positive feelings of self-worth and was negatively associated with feelings of loneliness in late childhood. The findings of the study also align with Singer and Lythcott (2002) who found that social play during the preschool and kindergarten years is associated with the development of language skills, early literacy, creativity, self-regulation, and school achievement.

The findings of the study revealed a significant influence of pretence play on cognitive development of primary school pupils in Uyo Local Government Area. The finding is in agreement with Lester (2008); Maureen (2003) who found a connection between pretence play and cognitive development. Lester (2008) found that “children integrate emotions, thinking and motivation to establish natural connections critical to effective brain functioning when they are involved in pretence play. For Maureen (2003) the development of cognitive skills, including dispositions for learning, (such as curiosity and persistence) memory and thinking skills and language and literacy skills have strong links to pretence play.

The findings of the study revealed a significant influence of associative play on cognitive development of primary school pupils in Uyo Local Government Area. The test of hypothesis revealed a t-value of 45.61 greater than 1.96 table value at .05 level of significance with 149 degrees of freedom. This finding aligns with Gray (2017) who found that by promoting cooperation; improves socialization through working/playing with others; problem solving; development of language skills, associative play positively contributed to cognitive development in children.

CONCLUSION

Play as an activity plays important role in the physical, cognitive, social development in young children. Basically, play allows children to explore different aspects of their world, interact with others, solve problem, work through different emotions, and practice emerging skills. Although, play time for children has declined due to perceived hazardous environment and too much focus on academic proficiency, this study has established that meaningful play is synonymous with ability to interact with others, solve problems, integrate emotion and communicate feeling and ideas, curious and creative which are indices of overall development of children. In the light of the findings of this study, it is concluded that social play, pretence play, associative play and solitary play are significant elements that enhance cognitive development of primary school pupils in Uyo Local Government Area.

RECOMMENDATIONS

Based on the findings of the study, it is recommended that:

1. Play time should be adequately integrated in the teaching and learning process design for primary school pupils.
2. Parents should monitor and direct their children towards meaningful play and should also allow their children to play with other children. This would promote exchange of ideas, experiences and creativity among children.
3. Production of toys and other playing materials should be such that, the materials is able to help children develop their representative and manipulative skills.

REFERENCES

1. Ahmad, S. Ch, A. Batool, A. Sittar, K and Malik, M. (2016). Play and cognitive development: Formal operational perspective of Piaget's theory. *Journal of Education and Practice*. Vol.7 (28). Pp 72-79.
2. Bergen, D. (2001). Pretend play and young children's development. *ERIC Digest*. Retrieved from <http://www.ericdigests.org/2002-2/play.htm>
3. Berk, L.E. (2005). *Infants and Children: prenatal through middle childhood*. Boston: Person,
4. Bjorklund, D. F. and Douglas-Brown, D. (2008). Physical play and cognitive development: integrating activity, cognition and education. *Child Development*. 69, 604–606.
5. Bodrova, E., & Leong, D. J. (2015). Tools of the mind: A case study of implementing the Vygotskian Approach in American early childhood and primary classrooms. Retrieved from http://www.ibe.unesco.org/fileadmin/user_upload/archive/publications/innodata/inn07.pdf
6. Bosah I. P, Obumneke-Okeke I. M, Anyachebelu F. E (2015) Utilization of dramatic play for quality holistic development of Nigerian child. *International Journal of Multidisciplinary Research and Development*. Vol. 2, Issue: 10, 545-548.
7. Brown, S. (2007), What is Play? "National Institute for play. Retrieved from. <http://www.nifplay.ovy/fromdoor.html>.
8. Coplan, R. J. Rubin, K. H and Findlay, L. C. (2017). Social and Nonsocial Play In Fromberg, D. P and Bergen, D. (Eds.), *Play from birth to twelve* (2nd edition). New York: Garland
9. Copple, C., & Bredekamp, S. (Eds.). (2009). *Developmentally appropriate practice in early childhood programs: Serving children from birth through age 8*, (3rd ed.).
10. Crain, W. (2010). Is children's play innate? *Encounter: Education for Meaning and Social Justice*, 23(2), 1–3. Retrieved from <http://www.fairplayforchildren.org/pdf/1290046915.pdf>
11. Eniko Ltd. (2004). What is play? Your child's development. Available at <http://searchwarp.com/swa2067.htm>
12. Federal Republic of Nigeria (2004). *National Policy on Education*. Abuja.
13. Feldman, M.A., (2002). Factors influencing the selection of toys for handicapped and normally developing preschool children. *Journal of Genetic Psychology*, 150(2), 125-134.
14. Goodson, W. (2005). *Play in the Class Room*: Oxford, UK: Black-Wed.
15. Gray, P. (2017). What Exactly Is Play, and Why Is It Such a Powerful Vehicle for Learning? *Topics in Language Disorders*, 37(3), 217-228.
16. Groos, K. (1896) *Die Spiele der Tiere* (translated by E. L. Baldwin as *The Play of Animals*) New York.
17. Jewit, L. (2003): Bringing Joy and Comfort to a Child in Crisis In Cosmas (ed.) *Children First: A Journal on Issues Affecting Children and their Careers*. 7,49.
18. Klein, T. P., Wirth, D Linas, k. (2003). Play: children's context for development. *Young children*, 58(3), 38-45.
19. Lester E, Russel B. (2008). Play Development from birth to age four. In Fromberg D.P. and Bergen, D. (Eds). *Play from birth to twelve: context, perspectives and meaning* (2nd Ed.). New York: Routledge.
20. Levine, S. C., Ratliff, K. R., Huttenlocher, J. and Cannon, J. (2012). Early puzzle play: a predictor of preschoolers' spatial transformation skill. *Developmental Psychology*. 48, 530–542.
21. Nancy, D. (2010). *Rethinking and Recreating Children's world*. New York: Basic Books.
22. National Children's Bureau (2004). What is play? Development for culture, media and support (DCMS).
23. National Literary Trust (2005). *Talk to your Baby*. Retrieved from www.talktoyourbaby.org.uk
24. Nwana, C.O. (2008). *Introduction to Educational Research* (revised edition). Ibadan: Human Nigeria Limited.
25. Oostermeijer, M. Anton J. H. Boonen, A. J and Jolles, J. (2014). The relation between children's constructive play activities, spatial ability and mathematical word problem-solving performance: a mediation analysis in sixth-grade students. *Frontiers in Psychology*
26. Orji, C. C. (2013). Influence of toys on the cognitive development Of preschool children In Anambra State. Thesis. University of Nsukka.
27. Piaget, J. (1962). *Play, Dreams and Imitation in Childhood*. New York: W.W. Norton
28. Santrock, J.W. (2003). *Child Development*: New York: McGraw-Hill Companies, Inc.