

EFFECT OF GUIDED OUTDOOR PLAY ON ATTENTION SKILL OF PUBLIC PRE-PRIMARY SCHOOL PUPILS IN JOS NORTH L.G.A OF PLATEAU STATE

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Abstract

Developmentally appropriate learning practice has been a major subject of discussion among stakeholders in early childhood education. There have been various methods used among pre-schoolers by teachers and caregivers to sustain attention among pre-primary school pupils: such as memorization, repetition and lecture methods which have yielded little result. This study therefore investigated the effects of guided outdoor play on attention skill of pre-primary school pupils in Jos North L.G.A of Plateau State. Quasi- experimental design of pre-test, post-test non-equivalent control group was used to conduct the study, in which 47 pupils from two intact classes from one of the 14 public schools in Jos North LGA of Plateau State who have met the criteria of having two arms of pre-primary classes with each arm not less than 20 pupils in a class: Two self-developed instruments titled cognitive skills rating scale (CSRS) and Cognitive Skill Assessment Test (CSAT) were used to collect data. The findings revealed that guided outdoor play increased pre-primary school pupil's attention skill in Jos North LGA of Plateau State. It was therefore recommended that teachers and parents should deliberately support guided outdoor play both in school and at home to help children learn appropriately and sustain attention skill in pre-schoolers.

Keywords: Effect, Attention skill, Guided outdoor play, Pre-primary school, Jos North LGA.

Introduction

Preschoolers need concentration to learn effectively, but this poses a great challenge as such to improve efficiency among pre-schoolers deliberate efforts should be made in providing activities that will sustain their attention and this includes guided outdoor play. Attention has been referred to as the allocation of limited processing resources (Adaralegbe, 2009). Attention is fundamental to human thinking because it determines the information that will be considered in any task. Paying attention means tuning in certain things while turning out others and maintaining focus over time. Ganre, Sroufe and Cooper (2000) described attention as the behavioural and cognitive process of selectively concentrating on a discrete aspect of information whether deemed subjective or objective, while ignoring other perceivable information.

One of the most important cognitive skills is attention skill. When a child learns to pay attention, it enables him or her to concentrate on one task for an extended period of time. Learning to focus attention is an important skill that the child will use in virtually all future learning. Attention serves several function related to information processing. It selects certain

event or objects in the environment to focus on and maintain focus on the object of interest while information provided by that object is processed (Anderson, 2002). Attention skill is vital in child's learning and development; it allows the child to function properly in the society.

The more a child pay attention to what people say, the better the vocabulary and communication become, the child might struggle with his speech, and reading may also suffer if the child does not have adequate listening skills, since the child might not be able to pay attention when someone is reading. Anyaegbu (2009) noted that in children, attention is thought to change with age, concurrently with changes in brain function. Several scientists who are interested in early cognitive development have proposed neurodevelopment models of attention development based upon behavioural findings in human infants, integrated with findings related to changes in brain function from studies of non-human animals and human adults, or neuropsychological research on clinical populations.

Osakwe (2009) observed several cases of low attention skills among primary schools pupils and attribute it to lack of proper orientation, foundation and training in attention skill at the early childhood level. This is probably because appropriate learning strategies are not used in developing attention skill. One of these strategies is guided outdoor play. In the light of the foregoing, the need to examine the effect of guided outdoor play on attention skill of pre-primary school pupils becomes apparent. If pupils will achieve improved attention in learning situation, proper learning strategies should be applied. It is against this backdrop that this paper focuses on investigating the effects of guided outdoor play on attention skill of pre-primary school pupils in Jos North L.G.A of Plateau State.

Statement of the Problem

Increasing inadequate demonstration of cognitive skills among pre-primary school pupils is worrisome and of great concern among stakeholders in Early Childhood Education (ECE) that would need urgent attention. Reports for instance, had it that more than half of Nigeria children under five years risk poor development, including cognitive development due to lack of early childhood development support such as loving care and appropriate play (UNICEF, 2017). Expected levels of cognitive of the development are based on typical gains in attention, recall, mathematics and languages skills observed in children from economically advantages countries. For the purpose of this study focus will be on attention skill.

A global UNICEF report launched in Abuja, 26th September 2017 shows that Nigeria is putting its children at risk of unclear development mentally, because critical national policies are not providing adequate foundations for a child's learning and thereby contribute to economic and social growth.

Similarly, 219 million (39%) children under 5 years in low-income and middle-income countries (which Nigeria is one) are at risk of not reaching their developmental potentials in cognitive skills development (Grantham McGregor, Cheung, Cueto, Gleweve, Richer, Strupp, 2007). The issues enumerated have raised a lot of concerns for the researcher as to whether guided outdoor play has effect on attention skill of cognitive development of pre-primary school pupils.

Population and Sample

Population

The population for this study consists of 921 pupils in all the public schools in Jos North that are streamed into arms. These pupils are 5 years old. For this is the age allowed to participate in public pre-schools. Statistics from Jos North Local Government Education Authority Plateau State Ministry (2019/2020) enrolment revealed that there are 14 public pre-primary schools within Jos South LGA, Plateau State with not less than two arms of classes and not less than 20 pupils in the class. The choice of public school is due to homogeneity in terms of facilities, administration, policy, staff qualification, and enrolment status among many.

Sample

The sample for this study were 47 pupils from two intact classes from one of the 14 public schools in Jos North LGA of Plateau State who have met the criteria of having two arms of pre-primary classes, with each arm not less than 20 pupils in the class. Thus, pre-primary A has 24 pupils intact and B class has 23 pupils intact, making a total of 47 pupils. Class (arm) A will serve as experimental group while arm B will serve as control group. That is 24 pupils participated in the experimental group, whereas, 23 pupils participated in the control group.

Purpose of the Study

The purpose of the study was to investigate the effect of guided outdoor play on attention skill of pre-primary school pupils in Jos North LGA of Plateau State.

The Specific Objectives were to:

- (1) Determine the effect of guided outdoor play on pre-primary school pupils' attention skill in Jos North.
- (2) Determine strategies for enhancing pre-schoolers attention skill during learning situation in Jos North

Research Question

The following research question was raised to guide the study:

- (1) To what extent have pre-primary school pupils in Jos North develop attention skill before and after exposure to guided outdoor play.

Hypothesis

- (1) There is no significant difference between the pre and post attention skill of pre-primary school pupils exposed to guided outdoor play and those who are not.

Methodology

Research Design

The study made use of the Quasi-experimental design of pre-test, post-test, non equivalent control group. The Oxford Reference (2017) in support of this design noted that the one group pre-test-post test design is one of the most frequently used quasi – experimental research designs wherein, a single group of research participants or subjects is presented, given some treatment and then post tested. In this study two intact groups were used for data collection, the participants were: Pre-primary school pupils, from two intact classes, from a public primary school in Jos North Local Government of Plateau State.

Instruments for Data Collection

Two instruments were used for data collection in this study, these include: The researcher designed instruments titled Cognitive Skills, Rating Scale (CSRS) and cognitive skills Assessment tests (CSAT) with items on attention skills measurement. The instruments are for pre-primary school pupils age 5 years, they were used to observe and test pre-primary school pupil's attention skill.

The instrument (CSRS) is an observation schedule designed in a tabular form to test the attention skill of pre-primary school pupils. The instrument has basically two sections. Section 'A' of the instrument contains preliminary information of pupils and name of observers. Section 'B' has 5 items, the items are based on a four point linker scale response type ranging from poor = 1 average = 2, good = 3 Very. Good = 4. The two groups were observed before and after the treatment.

The cognitive skills Assessment Test (CSAT) consists of 10 items based on preschool curriculum programme of the Nigeria Ministry of Education. This is to also test the attention skill of pre-primary school pupil in Jos North.

Data collected were analyzed using means and Analysis of covariance (ANCOVA) to test the hypothesis at 0.05 level of significance.

Intervention Strategy

Pre-primary school pupils in the experimental group were exposed to guided outdoor play. This is an intentionally created playful learning, where the teacher provides scaffolding in a playful setting outside the classroom to nurture children's emerging capabilities, and knowledge. This is not limited to physical activities.

Members of the control group were not exposed to the treatment (guided outdoor play). However the research assistants involved the participants with placebo tagged "Free Outdoor play" (FOP) (children choose their own play). This was to get the control participant busy, engaged as well as distracted from the treatment package.

Results and Discussion

Research Question 1:

To what extent have pre-school pupils in Jos North develop attention skill before and after exposure to guided outdoor play and free play?

To determine the extent of attention skill development before the intervention, mean and standard deviation were used. Mean score was computed based on 4-point rating of the Cognitive Skills Rating Scale (CSRS). There are 5 items measuring construct in attention skill. The least score is 5 while the highest score is 25. Thus, $1+2+3+4=10/4=2.5$; that is, $2.5 \times 5=12.5$, implies that: mean score 5.0-12.5=low skill and 13-20.0 = High skill.

Table 1: Pre and Post Attention skill Mean and Standard Deviation Result in Experimental and Control Groups

Group	N	Pre-test		Remark	Post-test		Mean Gain	X Diff
		X	SD		X	SD		
Experimental	24	38.33	12.04	Low	63.33	10.90	25.00	11.52
Control	23	38.26	9.84	Low	51.74	6.50	13.48	

Table 1 revealed the mean and standard deviation result of pre- and post- attention skill of the experimental and control groups. The result for experimental group yielded a mean score ($X = 38.33$, $SD = 12.04$) and control group had a mean score of ($X = 38.26$, $SD = 9.84$) before treatment, indicating that pre-primary school pupils had a low attention skill before treatment. This finding is in line with Ojile (2018) position that pre-primary school pupils who had no experience of early childhood education had low attention skill.

After treatment the results for experimental group yielded a higher mean score ($X = 63.33$, $SD = 10.90$) than control group ($X = 51.74$, $SD = 6.50$). It indicates that the mean gain score of experimental group is 25 and that of control group is 13.48 with a mean difference of 11.52. This implies that there was improvement in the post – test after exposure of the pupils to guided outdoor play and free play. The result further shows that those exposed to guided outdoor play developed a higher attention skill than those exposed to free play. Similar findings have been reported by Yogman et al. (2018) that play is an essential foundation for the skills children need to live successful lives, this help children learn to solve problems and ensure strong start in cognitive skills. The finding is also in line with Ojile's (2018) submission that cognitive skills acquire at pre-primary school enhance primary one pupils' cognitive development and performance. This is so because it is in the early childhood that the foundation for acquiring knowledge, which includes helping young children develop their memory and creativity, focus their attention, and develop positive attitudes toward learning.

Hypothesis Testing

There is no significant difference between the pre and post attention skill of pre- primary school pupils exposed to guided outdoor play and those who are not.

Table 2: Summary of ANCOVA results of Post Attention Skill of Pupil in Experimental and Control Groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Squared	Eta
Corrected Model	1843.614a	2	921.807	11.933	.000	.352	
Intercept	8322.748	1	8322.748	107.740	.000	.710	
Pre-test	264.829	1	264.829	3.428	.071	.072	
Group	1574.425	1	1574.425	20.381	.000	.317	
Error	3398.939	44	77.249				
Total	161500.000	47					
Corrected Total	5242.553	46					

a. R Squared = .352 (Adjusted R Squared = .322)

Table 3: Result of Sidak Post hoc Comparison of Difference between the Attention Skill of Pupils in the Experimental and Control Groups

I Experimental	J Control	X-diff (I – J)	Std. Error	P Value
63.33	51.75	11.58	2.57	0.000

P<0.05

Analysis of covariance (ANCOVA) was conducted to determine if a significant difference exists in the post-test attention skill of pre-primary school pupils in experimental and control group in Jos North Table 2 shows that $F(1,44) = 20.38$, $P < 0.05$, $\text{partial}\eta^2 = .32$, Since the P value of 0.000 is less than 0.05 level of significance with effect size of .317 which means (32%), the null hypothesis was rejected, indicating that there was a significant effect of guided outdoor play on pupils attention skills. On the contrary, the pre-test (covariate) yielded $F(1, 44) = 3.43$, $P = 0.07$, which was not significant, indicating no significant difference in the attention skill between the experimental and control groups before treatment. The result further reveals an adjusted R squared value of .322 which means that 32.2 percent of the variation in the dependent variable which is attention skill is explained by variation in the treatment, while the remaining is due to other factors not included in this study. The Sidak post hoc test in Table 2 confirms that the corrected difference between experimental group and control group was statistically significant, $(I - J) = 11.58$. Hence, we can say that guided outdoor play does increase pre-primary school pupil's attention skill in Jos North L.G.A of Plateau State.

Conclusion

Based on the findings from the study, it is concluded that the intervention strategies have greatly influenced the participant's attention skill. From the result of this study, it is also concluded that when participants are continuously exposed to guided outdoor play they are likely to improve in attention skill to develop their overall cognitive skill. Therefore, the class teacher should ensure that a comprehensive plan of guided outdoor play is integrated with normal class learning as utilized in this study and should be sustained for improvement in attention skill of pre-primary school pupils.

Recommendations

Based on the findings of the study, the following are recommended:

- (1) Teachers should allocate time officially on the time table for guided outdoor play for pre-primary school pupils, and comply with it for effective stimulation of development of attention skill in pre-primary school pupils.
- (2) Parents and guardians should learn to ignore the challenges of dirty appearance of their children during guided outdoor play and plan to sacrifice more time for their clean up bearing in mind the benefits of guided outdoor play on attention skill.
- (3) Parents should also balance the emphasis between guided outdoor play and indoor learning activities. This should help parents to support guided outdoor play at home by providing play time, play space, and play materials such as toys for the child to play with.
- (4) Curriculum planners should deliberately give equal and quality attention to academic activities and guided outdoor play for the development of total child.
- (5) Caregivers should also use guided outdoor play to solve the problem of preschoolers with attention skills deficit as an intervention strategy.

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