

## School Environment and Pres–School Children’s Reading Readiness in Ikwerre Local Government Area Of Rivers State, Nigeria

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### Abstract

This paper investigated the relationship between the school environment and reading readiness of pre-school children in Ikwerre Local Government Area of Rivers State. The descriptive survey design was adopted for the study. Population of the study was 927 nursery three children from government approved and 1,253 nursery three children from illegally operating nursery schools in Ikwerre Local Government Area. Altogether, a population of 2,180 pre-school children formed the population of the study; while the sample size for the study was 218 pre-school children (that is, 93 children from government approved schools and 125 children from illegally operating ones). Simple random sampling technique was used to draw the sample size for each group of children. Instrument used for data collection was the researcher – designed 9 test items titled: “Test for Relationship between School Environment and Pre-school Children’s’ Reading Readiness (TRSEPCRR)” Questionnaire. The instrument was scored on 3 points rating scale of ‘(Yes) 3’; ‘(No) 2’; and ‘(Did not do anything) 1’. Three research questions and three null hypotheses guided the study. Simple percentage count was used to compute the responses from the research questions; while chi-square statistics was used to analyze the null hypotheses. The major findings of the study are that the school environment has significant relationship with pre-school children’s development of reading readiness, based on the school’s instructional facilities; the qualification of teachers and the instructional methods. All these have relationship with the children’s competence in recognizing symbols; making sounds; and ability to join letters to make sounds. Based on these findings, the study concluded that the school environment has relationship with pre-school children’s reading readiness in Ikwerre Local Government Area. Some recommendations were made, based on the findings of the study, so as to stir up reading readiness in pre-school pupils. Among the recommendations made is that the school environment should be conducive and able to motivate every aspects of learning readiness.

**Keywords:** Pre-school Children’s Reading Readiness, School Environment.

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### INTRODUCTION

Reading readiness as a concept could be said to be the point at which a child is ready to learn how to read and the time at which a child transits from being a non-reader into a reader. It might be translated as the time at which a child is capable of learning to read. Children begin to learn

pre-reading skills from birth as they listen to the speeches around them. In order to learn to read, a child must first have knowledge of the language. The acquisition of language is natural, but the process of learning to read is not (Eferebo, 1997).

A child is said to be ready for reading if he/she has attained the level of interest, experience, maturity and skills, which enables him/her to engage successfully in a given reading task. Reading readiness is the best step for beginning reading instructions. For a child to be considered ready for reading, he/she must develop the following language skills: listens with concentration; shows emotional stability; is able to express his/her thought and make it understandable to others in sequence; and shows a good visual/audition acuity and motivation of motor skills (Ikoh, 2004).

Furthermore, the time in a child's life when he becomes capable of reading involves the four different aspects of growth: Physiologically, psychologically (emotionally and intellectually), educationally and sociologically (cultural and environmental). For all the above to be in place and contribute effectively to the development of reading readiness in pre-school children, the general school environment must be clean, beautiful, and the classrooms situated in calm and safe areas. The classroom should be stock with educative pictures, story books, flash cards, mini-book shelves, television, educative video tapes with reading activities, reading corner, which will motivate and develop reading readiness in children (Lackney, 2004).

The school environment is a learning environment. A learning environment could be described as a designated area where learners are connected with teachers, peers, instructional facilities, instructional methods, the classroom and its environment, among others. Oduolowu (2011) describes a learning environment as the physical space in which instructions and learning take place. The learning environment can also be a place where knowledge and understanding are constructed through social interactions; as well as a place that provides essential information, time, experiences and opportunities for learners to respond creatively to their world. Interpersonal skills among learners are developed in a school environment and they learn individually and cooperatively. Additionally, the school environment is a place that responds to the child's natural curiosity, reaffirms a sense of self and promotes positive dispositions towards learning.

The site of a school often affects pupils' academic performance (in listening, speaking, reading and writing). Ideally, a school should not be sited near a market, a garage, a river, a canal, a filling station, an airport, under electric cables, on a high way, near a factory, a hotel, music and cinema houses or a zoo. The topography of the school is equally important as this should not be on a hill or in a ditch. The landscaping of the school with good drainage is of much importance as well. If a school is close to a river or a canal, it could hardly be free from invasion by dangerous reptiles. Fire accident could occur in filling station or violence in a hotel, a cinema house or a motor park. Also schools that are located in an unkempt waste disposal environment are always infested with rats whose attendants could pose dangers from their faeces can contaminate children's toys (Moore, 1998).

External noise level either from air-traffic, sound of machines in factories or blaring of music from public entertainers could cause discomfort to learners and teachers alike, as well as impair learning. When learning is impaired, reading readiness will also be impaired (Lackney, 2004).

Following are categorized as school environmental factors: available facilities and equipment, class size, teacher quality, methods of teaching, instructional materials, and peer relationship, among others.

## **Instructional Facilities (Equipment) and Pre-school Children's Reading Readiness**

The environment of learning should be conducive, beautiful, orderly, clean and natural. The classroom should be spacious with moderate humidity level and temperature to prevent air-borne bacteria, and mould or fungal infections which could cause asthma or bod rash in children. Schools need good and adequate ventilation because children breath a greater volume of air in proportion to their body weight than adults. Children in a classroom that lack adequate ventilation cannot function normally and cannot learn how to read or be ready to read at their capacity (Hines, 1996). The furniture should be age-appropriate and arranged in a way that will ease movement in the classroom. Classroom lighting plays a critical role in preschool children's academic performance (Reading readiness inclusive). Obviously, pre-school children cannot be ready to read where or in a classroom without adequate lighting. Benya (2001) postulates that appropriate lighting catches children's attention, gets them excited, reduces off-tasks behaviours and plays significant roles in children's achievement. For example, with adequate lighting, children perform better in colour identification, number and word recognition.

The toilet facilities should be adequate and convenient for pupils with separate toilet room for males and females. Pre-school children drink much water because of their involvement in physical exercises and play. The toilet facilities should be convenient for them to let out the body waste products either through urinating or defecating; hence, availability of pipe-borne water or bore-hole will be highly essential.

There should be very good, manicured lawns and close-to-nature playing ground in a place provided with the necessary playing gadgets and close supervision when in use. First-Aid Box and a School Clinic that is well equipped with necessary drugs and qualified, certified and experienced medical personnel on full time should be put in place. Among the needed facilities for pre-school children are a dining section where they could have their meals during break, and a convenient room with bedding facilities for resting or sleeping (Jago & Tanner, 1999).

The availability of appropriate facilities promotes learning and enhances children's reading readiness. More importantly, the environment of learning should be made beautiful and as natural as may be possible, orderly and clean to enhance reading readiness in pre-school children.

## **Class Size and Pre-school Children's Reading Readiness**

A well designed and implemented class size reduction programme at the pre-primary level often leads to a rise in children's academic achievement and reading readiness. A class size of 18 children maximum per teacher is required to produce the greatest benefit. Reducing class size will have little effect without enough classrooms, well qualified teachers, professional development programmes for teachers and children, and a detailed curriculum. All these will enhance the effects of reduced class size on children's academic achievement and development of reading readiness. The class size varies in Nigeria depending on the school location, the proprietorship, type and quality of facilities, teaching staff and official policy (Ejeh, 2006). The standard and approved class size is a maximum of 25 children in a class (FRN, 2014). Some schools however, have set a teacher-children ratio of: 1 to 20; 1to 25; 1 to 30; or higher. The more congested the class, the more difficult it will be for pre-school children to learn and be ready for reading.

## **Care-giver or Personnel Quality and Pre-School Children's Reading Readiness**

Essential personnel is needed for pre-school children's well-being and learning. Such personnel will include professionally experienced and committed head teachers, qualified care-givers possessing relevant training and knowledge of early child care education, a school counselor, caterers, cleaners and gardeners. The maintenance of a healthy child-friendly and reading-made-easy environment by qualified teachers often necessitates high educational outcome (Rolnick & Grunewald, 2003).

Birch and Ladd (1996) in their study discovered that pupils' academic performance is more heavily influenced by teacher or personnel quality than by pupils' class-size or the type of school they attend. Based on this, teachers of pre-school children should preferably be graduates of Early Childhood Care and Education (ECCE) or Primary Education Studies (PES), who have idea of how to develop reading readiness in pre-school children. The benefits associated with being taught by good teachers are cumulative. The achievement in reading readiness gap widens progressively between pupils with most effective teachers and those with least effective teachers. This suggests that the most significant gains in academic achievement and development of reading readiness will likely be realized when children receive instruction from good teachers over consecutive years. A good teacher must therefore ensure the establishment of criteria such as: the lesson should step towards practicing what is taught; provision of an orderly model of reading readiness working for the child to imitate; freedom from interference when practicing reading; opportunities for pre-school children to experience reading. All these criteria will enhance reading readiness in pre-school children.

## **Method of Teaching and Enhancement of Reading Readiness in Pre-school Children**

Philosophers such as Montessori, Plato, Rousseau and Pestalozzi as cited in Amadi-Ali (2011) advocate play as the best method of teaching preschool children. It is an active method of teaching that is child-centred. The child as propounded by Maria Montessori engages in a particular form of play through which he/she acquires learning which reading readiness is a part of. Play at the pre-school stage is doing educative things that pre-school children equally enjoy, either together with others or alone and with or without the use of toys. The child, the teacher and the environment are three interdependent and functional components that operate together to bring about effective learning through play and the child is the focal point. For the development of reading readiness in pre-school children therefore, a carefully prepared environment and appropriate teaching method should be provided; including the introduction of pre-reading activities such as Jolly phonics.

## **Instructional Materials and the Enhancement of Reading Readiness in Pre-school Children**

For learning to be effective and interesting, and for pre-school children to develop reading readiness in the school programme, the teachers must use different types of toys as play and learning materials. Toys are physical and man-made items used as tools of play and learning for children, thereby providing them fun and amusement. Educational toys are those ones that challenge, stimulate or encourage children to learn through play (Obadiah, 2008).

It should be noted that the pre-school child learns through experimentation, discovery, visual process and playing with toys, which helps their cognitive growth and development of fine motor skills, improve their attention span and problem solving ability. Since toys are in various forms and meant for different age groups, care-givers should use toys that are age appropriate and relevant to the development of reading readiness of pre-school children (Chiaka, 2008). Teachers should be conversant with how to use toys and what reading readiness learning is to be imparted in the pre-school children from the use of toys. When the ready-made toys are not available or too expensive, the teacher should use his/her creative ability to improvise the needed toys for reading readiness activities from available materials.

Despite the provision of toys for play and learning, pre-school children should also be provided with audio-visual aides, educative pictures, story books, television, educative tapes with initial reading activities which will motivate, develop and promote reading readiness in them.

### **Peer Relationship and Development of Reading Readiness in Pre-schoolers**

Pre-schoolers are influence by peers' relationship in their social and cognitive development. This peers relationship also influences their reading experiences and learning greatly. Peer play allows children to interact with others whose levels of development is similar to theirs. Based on the fact that children imitate one another they cooperate and pay attention to academic work better while they are together than when alone (Burke & Sass, 2011). Peer relationship helps children to follow directions, learn how to take turns, stick to a task for a specific period, cooperate with others in a joint work and learn how to resolve conflicts. They also imitate others in pre-reading activities which help them develop reading readiness.

Having discussed what reading readiness and school environment are, it becomes expedient for this study to be conducted in order to find out the relationship between school environment and the development of reading readiness in pre-school children. The study was confined to three among the variables of school environment that could influence pre-school children's reading readiness, which are instructional facilities, qualification of teachers and instructional methods.

### **Statement of the Problem**

The school environment is a learning environment where children of different socio-economic status, languages and ethnic nationalities come together for the purpose of learning. Whereas, the school environment of the pre-schoolers is supposed to be provided with appropriate instructional facilities, clean classrooms sited in calm and safe environment, ideal class- size, qualified teachers, ideal instructional methods, among others, it can still be observed that most of the pre-primary schools are situated in dwelling houses, large halls, community huts, and face-to-face type of rooms used as classrooms. In the course of the research by NERC led by Adesina (2005) in the development of a curriculum guide for pre-primary schools, it was discovered that verandas, garages and sheds; with varying degrees of ventilation, sanitation, illumination, infrastructure and teaching standards are used as nursery schools. Based on this, the guide called for innovation and creativity on the part of the teacher to assist in creating a stimulating learning environment for nursery school children.

Ruma (n.d) recommends the promotion of safe and conducive school environment for Integrated Early Childhood Development (IECD) which will enhance effective reading readiness, mathematical skills and others. Despite this recommendation, it remains a fact that most nursery schools (especially the illegally operating ones) in Ikwerre Local Government Area are still afflicted with lack of instructional facilities and equipment, qualified care-givers and wrong instructional methods, among others; hence, the conduct of this study.

### **Purpose of the Study**

Broadly, this study investigated the relationship between the school environment and the development of reading readiness in pre-school children. Specifically, the study sought to:

- Examine the relationship between a school environment with appropriate and adequate instructional facilities on the development of reading readiness in pre-school children in recognition of symbols.
- Ascertain how a school environment with qualified teachers could promote reading readiness in pre-school children in making sounds with song.
- Determine the relationship between a school environment with ideal instructional methods and the enhancement of reading readiness in pre-school children in joining letters verbally to make a sound.

### **Research Questions**

The following research questions guided the study:

- What relationship has a school environment with appropriate and adequate instructional facilities on the reading readiness of pre-school children in recognition of symbols?
- How could a school environment with qualified teachers contribute to the development of reading readiness in pre-school children's competence in making sounds with song?
- How does a school environment with ideal instructional methods enhance the development of reading readiness in pre-school children's ability to join letters verbally to make a sound?

### **Hypotheses**

The following null hypotheses further guided the study at 0.05 level of significance:

- A school environment with appropriate and adequate instructional facilities does not have significant relationship with the reading readiness of pre-school children in recognition of symbols.
- A school environment with qualified teachers does not significantly contribute to the development of reading readiness in pre-school children's competence in making sounds with song.
- A school environment with ideal methods of instruction does not significantly enhance the development of reading readiness in pre-school children's ability to join letter verbally to make a sound.

## METHODS

The design adopted for this study is the ex-post facto. The researcher employed this research design because there was a comparison in the performance of pre-school children in government approved and illegally operating private nursery schools. Consecutively, the researcher deemed the ex-post factor design most appropriate for this study in the sense that it is causal comparative design in which the research is done after the causes have affected another variable and cannot be manipulated by the researcher.

The study was conducted in Ikwerre Local Government Area of Rivers State. Population of the study was all the nursery three children in government approved and illegally operating nursery three children in Ikwerre Local Government Area whose population was 927 (for government approved) and 1,253 (for illegally operating) nursery schools. Altogether, the population for the study was 2,170 nursery three pupils (Records of Head Teachers, 2016). Sample size for the study was 93 pre-school children representing approximately 10% of those from approved schools; and 125 pre-school children representing approximately 10% of pre-school children from illegally operating schools. Simple random sampling technique was used to draw the sample size for the study. A researcher – designed 9-items instrument titled: “School Environment and its Relationship with Pre-school Children’s Reading Readiness (SERPCRR)” questionnaire was used to test the reading readiness competence in the pre-school children of government approved and illegally operating nursery schools in Ikwerre Local Government Area of Rivers State. The instrument was scored on three points rating scales of (Yes)<sup>3</sup>; (No)<sup>2</sup> and (Did not do anything).

The instrument was validated by two experts whose corrections and suggestions made the instrument qualify for face and content. To ascertain the reliability of the instrument, a test-retest exercise was carried out in Emohua Local Government Area of Rivers State. Thirty pre-school children were used for the pilot testing. Pearson Product Moment Correlation (PPMC) was used to collate the data generated; which yielded a coefficient of 0.73. Based on this result, the instrument was vetted reliable for the study. The research questions were answered and analyzed in tables, using simple percentage count; while Chi-square statistics was used to compute the null hypotheses at 0.05 level of significance.

Table 1: Chi-square analysis of the ability of pre-school children from government approved and pre-school children of illegally operating nursery schools to recognize letter symbols.

S/N	Statements	$\chi^2$	Group A			Group B			Total
			Yes	No	DNDA	Yes	No	DNDA	
1	The children is able to recognize schools A – Z capital and small letters	$F_0$ $F_e$ $\frac{f_0 - f_e^2}{fe}$	85 86.3 0.0	7 5.6 0.4	1 1.0 0.0	57 70.3 2.5	48 40.3 1.5	20 14.3 2.3	218
2	the child is able to point out the symbols of ah-zii	$F_0$ $F_e$ $\frac{f_0 - f_e^2}{fe}$	83 86.3 0.1	8 5.6 1.0	2 1.0 1.0	53 70.3 4.3	50 40.3 2.3	22 14.3 4.1	218
3	The child is able to recognize the alphabet capital letters	$F_0$ $F_e$ $\frac{f_0 - f_e^2}{fe}$	91 86.3 0.3	2 5.6 2.3	0 1.0 1.0	101 70.3 13.4	23 40.3 7.4	1 14.3 12.3	218
<b>Grand Total</b>			<b>259</b>	<b>17</b>	<b>3</b>	<b>211</b>	<b>121</b>	<b>43</b>	<b>654</b>

$df = 10$  and  $p < 0.05$ ,  $\chi^2 e = 18.31$ ,  $\chi^2 0 = 56.2$

Group A = 93 (pre-school children from government approved nursery schools)  
 Group B = 125 (Pre-school children from illegally operating nursery schools)  
 Total = 218  
 DNDA = Did not do Anything

The result on table 2 shows that  $\chi^2_0$  (56.2) is greater than  $\chi^2_e$  (18.31) at  $df = 10$  and  $p < 0.05$ . The null hypothesis was rejected and alternative hypothesis upheld. It is therefore stated that a school environment with appropriate and adequate instructional facilities have significant relationship with the reading readiness of pre-school children, based on the difference in the scores of the two groups in recognition of symbols.

Table 2: Chi-square analysis of the competence of pre-school children with qualified care-givers in making sounds with song

S/N	Statements	$\chi^2$	Group A			Group B			Total
			Yes	No	DNDA	Yes	No	DNDA	
4	The child sings, ei, bi, si, di, to zi	$F_0$	93	0	0	107	17	1	218
		$F_e$	89.0	2.0	2.0	105.3	18.6	1.0	
		$\frac{f_0 - f_e^2}{fe}$	0.2	2.0	2.0	0.0	0.1	0.0	
5	The child says letters with words in which they occur	$F_0$	81	6	6	88	35	2	218
		$F_e$	89.0	2.0	2.0	105.3	18.6	1.0	
		$\frac{f_0 - f_e^2}{fe}$	0.7	2.0	2.0	2.8	14.4	1.0	
6	The child is able to point out the alphabet lower case	$F_0$	93	0	0	121	4	0	218
		$F_e$	89.0	2.0	2.0	105.3	18.6	1.0	
		$\frac{f_0 - f_e^2}{fe}$	0.2	2.0	2.0	2.3	11.4	0.0	
<b>Grand Total</b>			<b>267</b>	<b>6</b>	<b>6</b>	<b>316</b>	<b>56</b>	<b>3</b>	<b>654</b>

$df = 10$  and  $p < 0.05$ ,  $\chi^2_e = 18.31$ ,  $\chi^2_0 = 57.1$

The result on table 2 shows that  $\chi^2_0$  (57.1) is greater than  $\chi^2_e$  (18.31) at  $df = 10$  and  $p < 0.05$ . The null hypothesis is rejected and the alternative hypothesis retained. It is therefore stated that a school environment with qualified care-givers significantly contributes to the development of reading readiness in pre-school children's competence in making sounds with song. This assertion is deduced from the difference in the performance of group A and group B.

Table 3: Chi-square analysis of the ability of pre-school children of a school environment with deal instructional methods in joining letters verbally to make a sound

S/N	Statements	$\chi^2$	Group A			Group B			Total
			Yes	No	DNDA	Yes	No	DNDA	
7	The child joins letters verbally to make a sound	$F_0$ $F_e$ $\frac{f_0 - f_e^2}{fe}$	79 85.3 0.4	14 7.0 7.0	0 0.6 0.6	84 96.0 1.5	39 26.6 5.7	2 2.3 0.0	218
8	The child is able to verbally fix in missing letters to make a sound	$F_0$ $F_e$ $\frac{f_0 - f_e^2}{fe}$	87 85.3 0.0	5 7.0 .05	1 0.6 0.2	89 96.0 0.5	33 26.6 1.5	3 2.3 0.2	218
9	The child is able to verbally make sounds with pictures	$F_0$ $F_e$ $\frac{f_0 - f_e^2}{fe}$	90 85.3 0.2	2 7.0 3.5	1 0.6 0.2	115 96.0 3.7	8 26.6 13.0	2 2.3 0.7	218
<b>Grand Total</b>			<b>256</b>	<b>21</b>	<b>2</b>	<b>288</b>	<b>80</b>	<b>7</b>	<b>654</b>

$df = 10$  and  $p < 0.05$ ,  $\chi^2_e = 18.31$ ,  $\chi^2_0 = 38.1$

The result of table 3 shows that  $\chi^2_0$  (38.1) is greater than  $\chi^2_e$  (18.31) at  $df = 10$  and  $p < 0.05$ . The null hypothesis therefore is rejected, while the alternative hypothesis is retained. It is therefore stated that a school environment with ideal methods of instruction significantly enhance the development of reading readiness in pre-school children's ability to join letters verbally to make a sound. This is revealed in group A and group B's performance in the test for ability to join letters verbally to make a sound.

## DISCUSSION OF FINDINGS

The result of hypothesis one showed that there is significant relationship between a school environment with appropriate and adequate instructional facilities and the reading readiness of pre-school children in recognition of symbols. This is based on the fact that the  $\chi^2_0$  calculated value of 56.2 is greater than the  $\chi^2_e$  table value of 18.31 at  $df = 10$  and  $p < 0.05$ . This simply implies that a school environment with appropriate and adequate instructional facilities and equipment has significant relationship with the reading readiness of pre-school children. This is in total agreement with Benya (2001) who postulates that appropriate and adequate instructional facilities catch children's attention, get them excited, reduce off-tasks behaviours and play significant roles in children's achievement in, for example, colour identification, number recognition and recognition of symbols.

The result of hypothesis two revealed that a school environment with qualified teachers significantly contribute to the development of reading readiness in pre-school children's competence in making sounds with song. The result revealed that the  $\chi^2_0$  calculated value of 57.1 is greater than the  $\chi^2_e$  table value of 18.31 at  $df = 10$  and  $p < 0.05$ . The result conforms with Rolnick & Grunewald (2003) who maintain that a healthy child-friendly and reading-made-easy environment by qualified teachers often necessitate high educational outcome, especially in speaking, reading and writing.

The result of hypothesis three indicated that a school environment with ideal methods of instruction significantly enhance the development of reading readiness in pre-school children's ability to verbally join letters to make a sound. The  $\chi^2$  calculated value of 38.1 is greater than the  $\chi^2_e$  table value of 18.31 at  $df = 10$  and  $p < 0.05$ . This agrees with the view of philosopher Montessori, Plato, Reausseau and Pestalozzi as cited in Amadi-Ali (2011) who believe that play is one of the ideal methods of teaching pre-school children that can in no small measure enhance their reading readiness. Through play, the philosophers reveal that children could verbally join letters to make a sound. This will facilitate their reading readiness skills.

## CONCLUSION

This study resolves to a conclusion that the school environment with appropriate and adequate facilities and equipment, qualified personnel (teachers) and appropriate instructional methods, significantly play role in the development of reading readiness in pre-school children. The reverse will however become the case when there are inadequacies and inappropriateness in the provision of the variables that contribute to the development or enhancement of reading readiness in pre-schoolers. Based on the above findings and conclusion, the researcher enjoins all concerned to try as much as possible to make the school environment convenient for learners in all tiers of learning.

## Recommendations

When the school environment is conducive, there is the tendency that learning will be promoted. The following recommendations are therefore made concerning our school environments, especially at the pre-school level and in Ikwerre Local Government Area of Rivers State:

- There is need for the school environment to be provided with appropriate and adequate instructional facilities which will enhance all aspects of learning including the development of reading readiness in pre-school children.
- The school environment should be provided with qualified teachers who will be able to employ their skills and experiences in teaching. There should also be teachers that are friendly, considerate and able to motivate learners to learn.
- The school environment should be such where ideal methods of instruction, especially play must be employed in teaching.
- The school environment should be conducive and able to motivate every aspects of learning readiness.

## REFERENCES

- Adesina, S. (2005). *Curriculum guidelines for Nigerian pre-primary (nursery) schools*. Lagos: Nigerian Educational Research Council (NERC).
- Amadi-Ali, B. C. (2011). *Journey to literary world: A guide to literary studies and children's literature*. Port Harcourt: Macbonus Integrated Services.
- Benya, J. R. (2001). *Lighting for schools*. Washington D.C: National Cleaning House for Educational Facilities.

- Birch, S. H., & Ladd, G. W. (1996). Continuity and change in the quality of teacher-child relationships: Links with children's early school adjustment. *Child development*, 67(1), 980-1012.
- Burke, M. A., & Sass, T. R. (2011). *Classroom peer effects and student achievement*. Boston: Federal Reserve Bank Cash, C.S. (1993). A study of the relationship between school building conditions and student achievement and behaviour. Blacksburg, VA: Virginia Polytechnic Institute and State University.
- Chiaka, P. D. (2008). The use of instructional materials for sound academic delivery in Nigeria. *The FCT Education Secretariat Journal of Curriculum Studies and Instruction*, 1, 107-112.
- Eferebo, B. I. (1997). *The basic aural and oral skills*. Port Harcourt: Rescue publications.
- Ejeh, M. U. C. (2006). Pre-primary education in Nigeria: Policy, implementation and problems. *Elementary education online*, 5(1), 58-64.
- Federal Republic of Nigeria (2014). *National Policy on Education (6th ed.)*. Abuja: NRDC press.
- Hines, E. W. (1996). *Building condition and student achievement and behaviour*. Virginia: D.Ed. Diss.
- Ikoh, N. F. (2004). Language and reading in early childhood education. In Q. I. Obinaju (ed.) *Early Childhood Education: Theory and Practice* (pp. 123-125). Calabar: Bon Universal.
- Jago, E., & Tanner, K. (1999). *Influence of the school facility on student achievement*. Athens: Department of Education Leadership.
- Lackney, J.A (2004). *Educational facilities: The impact and role of the physical environment of the school on teaching/learning and education outcomes*. Milwaukee, Centre for Architecture and Urban Planning Research.
- Moore, D. (1998). Improve your schools' atmosphere. *School planning and management*, 37(10), 18-31.
- Obadiah, S.A (2008). Early childhood education in the 21<sup>st</sup> century. The use of toys and other stimulation materials. Knowledge review: *A multidisciplinary Journal of NAFK*, 17(5), 107-111.
- Oduolowu, E. (2011). *Contemporary issues in early childhood education*. Ibadan: Franco-Ola Publishers.
- Rolnick, A., & Gruneward, R. (2003). Early childhood development: Economic development with a high public return, *Fedgazette*, 27(10), 16.
- Ruma, S. A. (n.d). *The National Policy for Integrated Early Childhood Development (IECD) in Nigeria: Policy statement 8.12.1*. Lagos: National Policy for IECD in Nigeria.

## Appendix A

### Test for Relationship between School Environment and Pre-school Children's Reading Readiness (TRSEPCRR)

#### A. Recognition of Symbols

1. What are these? Aa, Bb, Cc, Dd, Ee, Ff, Gg, Hh, Ii, Jj, Kk, Ll, Mm, Nn, Oo, Pp, Qq, Rr, Ss, Tt, Uu, Vv, Ww, Xx, Yy, Zz?
2. Point to the following symbols ah, bu, su, du, eeh, fuu, gu, hu, i, je, ku, lu, mu, nu, o, pu, qu, ro, se, tu, uu, vu, wi, ksi, wu, zii.
3. In what case are the following 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.

#### B. Competence in making sounds with song

4. Sing ei, bi, si, di, ee, ef, gi, ech, ai, je, ke, el, em, en, oou, pi, quu, ar, es, ti, uu, vi, dubliu, eks, wai, zii.
5. Say the letters a to z with the objects they occur,  
Example: a as in apple, b as in \_\_\_\_\_, c as in \_\_\_\_\_, d as in \_\_\_\_\_,  
e as in \_\_\_\_\_, f as in \_\_\_\_\_, g as in \_\_\_\_\_, h as in \_\_\_\_\_,  
i as in \_\_\_\_\_, j as in \_\_\_\_\_, k as in \_\_\_\_\_, l as in \_\_\_\_\_,  
m as in \_\_\_\_\_, n as in \_\_\_\_\_, o as in \_\_\_\_\_ p as in \_\_\_\_\_,  
q as in \_\_\_\_\_, r as in \_\_\_\_\_, s as in \_\_\_\_\_, t as in \_\_\_\_\_,  
u as in \_\_\_\_\_, v as in a \_\_\_\_\_, w as in \_\_\_\_\_, x as in \_\_\_\_\_,  
y as in \_\_\_\_\_ and z as in \_\_\_\_\_
6. Point out the alphabet lower cases in Aa, Bb, Cc, Dd, Ee, Ff, Gg, Hh, Ii, Jj, Kk, Ll, Mm, Nn, Oo, Pp, Qq, Rr, Ss, Tt, Uu, Vv, Ww, Xx, Yy, Zz.

#### C. Ability to join letters to verbally make a sound

7. Make sounds, joining the following letters:  
b-o-l ball, k-a-t cat, m-a-n man, r-u-m room, h-a-n-d hand,  
l-e-g leg, s-e-o-p soap
8. Fix in the missing letters to make sounds:  
b \_\_\_\_ k \_\_\_\_, \_\_\_\_ gg \_\_\_\_, c \_\_\_\_ t \_\_\_\_, b \_\_\_\_ ll \_\_\_\_
9. Make sounds with the following pictures:



## Appendix B

**Percentage analyses of raw data obtained from the responses of respondents on the test for the relationship between school environment and pre-school children's reading readiness**

S/N	Recognition of symbols	Group A						Group B					
		Yes	%	No	%	DNDA	%	Yes	%	No	%	DNDA	%
1	The child is able to recognize symbols A-Z capital and small letters	85	91.4	7	7.5	1	1.1	57	45.6	48	38.4	20	16.0
2	The child is able to point out the symbols of ah-zii	83	89.2	8	8.6	2	2.2	53	42.4	50	42.0	22	17.6
3	The child is able to recognize the alphabet capital letters	91	97.8	2	2.2	0	0.0	101	80.8	23	18.4	1	0.8
<b>Competence in making sounds</b>													
4	The child sings ei, bi, si, di to zii	93	100	0	0.0	0	0.0	107	85.6	17	13.6	1	0.8
5	The child says the letters with words in which they occur	81	87.0	6	6.5	6	6.5	88	70.4	35	28.0	2	1.6
6	The child is able to point out the alphabet lower case	93	100	0	0.0	0	0.0	121	96.8	4	3.2	0	0.0
<b>Ability to join letters orally to make a sound</b>													
7	The child joins letters to make a sound	79	84.9	14	15.1	0	0.0	84	67.2	39	31.2	2	1.6
8	The child is able to fix in missing letters to make a sound	87	93.5	5	5.4	1	1.1	89	71.2	33	26.4	3	2.4
9	The child is able to make sounds with pictures	90	96.7	2	2.2	1	1.1	115	92.0	8	6.4	2	1.6

Note below:

Group A - Children of government approved nursery schools

Group B - Children of illegally operating nursery schools

DNDA - Did not Do Anything

No. of subjects for group A – 93

No. of subjects for group B - 125