

Effects of an Indigenous Alphabet Game on the Yoruba Alphabet Knowledge of Preschool Children in Nigeria

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Abstract

The innovative idea of the new indigenous alphabet Game (lakanlaka) is a very good example of a way of acquiring pre-reading skills such as alphabet knowledge. Research findings have shown that most preschool centers in Nigeria have failed to implement the language policy provision which has led to a gross failure in the development of appropriate local games suitable to facilitate this important pre-reading skill within the country. This may be the reason most children struggle with reading and writing in Yorùbá language at primary level. Pretest-posttest control group quasi-experimental research design was adopted for this study. The participants were 25 children in Nursery II intact classes from two private schools in Ibadan metropolis. Indigenous Alphabet Game and conventional strategy were used in experimental and control group respectively. The study lasted for 8 weeks. 3 instruments and 2 instructional guides were used. Data were analysed using ANCOVA. IAGS enhanced children's indigenous alphabet knowledge ($F_{(1,17)} = 15.26; P < 0.05; \eta^2 = 0.47$). More so, home language ($F_{(1,17)} = 2.40; P > 0.05; \eta^2 = 0.12$) and cultural background ($F_{(1,17)} = 2.41; P > 0.05; \eta^2 = 0.12$) have no significant main effect on preschool children's indigenous alphabet knowledge. It was recommended that preschool teachers be trained on how to use Indigenous alphabet game to improve children's indigenous alphabet knowledge.

Key words: Indigenous, Game, Yorùbá, Alphabet, knowledge, children

Introduction

Early childhood is characterized by many areas of physical, social, emotional, and intellectual development; among these are brain development, language development, development of gross and fine motor skills, and moral development. This period (0-8 years), lays the foundation for every development (Onyiuke, 2016). At this period, children's development is holistic and in stages. If strict attention is given to any foundation that is laid, then early childhood years is to be taken with unflinching seriousness.

Salami, Olaniyan, Bankole, and Falola (2016) also described the early years as the most important to the formation of intelligence, personality, social and emotional behaviour of a child. They further stated that the years before a child reaches statutory school age (6 years) are among the most critical in life span which can influence learning. This level requires a lot of attention, in terms of social, emotional, physical and cognitive development. These four developmental domains are inter-dependent and inter-related such that one cannot exist without the other, without affecting the proper development of

the child (Salami, and Falola, 2016). There are many areas of early childhood development, early literacy is only a part, but often it's the barometer for other areas of development (National Early Literacy Panel, 2009).

Literacy begins even from the womb but at childhood when the child begins to attempt meaningful communication, it is important to introduce letter recognition which is conjoined with its sound to the child. At this period, the acquisition of early literacy skills tends to lay the foundation for competent display of the language in use by those in the immediate environment (National Early Literacy Panel, 2009). One of the early language skills necessary at this stage is alphabet knowledge; which is the knowledge of the names, sounds, and symbols of the letters of the alphabet. It is the first to be encountered in learning any language.

According to Cindy, Sarah and Reutzel (2012), Alphabet knowledge is recognized as the strongest and the most durable predictor of later achievement in literacy which includes decoding, comprehension, and spelling. Researches have consistently shown the importance of early childhood learners mastering alphabetic knowledge to be successful readers (Cindy et al 2012; Durrell, Nicholson, Olson, Gavel, and Linehan 2008; Snow, Burns, and Griffin, 1998).

Since alphabet knowledge is considered important to the learning of any language, the federal government of Nigeria appreciates the importance of language as a means of promoting interaction and national cohesion; and preserving cultures. Thus, the child learns the language of the immediate environment. Also, in the interest of national unity, it is expedient that every child shall be required to learn one of the three Nigerian languages: Hausa, Igbo and Yoruba. In addition, it is stated in the National Policy on Education (2013) that: "every child shall be taught in the mother tongue or language of the immediate community for the first four years of basic education" (p.6). During this period, English shall be taught as a subject. From the fourth year, English shall progressively be used as a medium of instruction and the language of immediate environment and French shall be taught as subjects. In addition, it is expected that every child shall learn one Nigerian language."

Moreso, one of the purposes of Early Child Care Development and Education in Nigeria is to teach the rudiments of letters. This implies that since every child should be taught in the mother tongue or language of the immediate community for the first four years of basic education, the (preschool) years preceding those years of basic education are supposed to develop adequate knowledge of the alphabet in the mother tongue or language of the immediate environment. The status of this policy statement has been on paper but not totally in practice. Ogunbiyi (2008) submitted that in spite of the government's position on the status of the English language and the Nigerian language, some schools still relegate Nigerian languages to the background and promote the teaching of English and French languages at the level of pre-school education. To buttress this point, Adegoke and Ibode (2007); Fakeye and Ogunsiji (2009), show that about 80% of teaching and learning activities at all levels of the educational system are conducted in English language.

The implication of this is that, many languages or dialects now face the threat of language extinction, language shift or ultimately language death. Infact, according to Azeez, (2013) it is discouraging that what Yoruba- language literature has achieved in the

quantity and quality of its writers has been lost to the dearth of willing and fluent readers of Yoruba - language literature.

Kraus, (1992) in his own word submits that;

“It can be said that Yoruba language is endangered while the English Language is safe in Nigeria’s multicultural and multilingual contexts. Many “modern” and elitist Yoruba children cannot read Yoruba alphabets with commendable linguistic competence. These children falter and fumble with the reading of Yoruba Language alphabets with no success. On the other hand, these children read English Language with linguistic proficiency and competence.”

The implication of this is that these children will grow up not been able to read or write fluently in their mother tongue. This is a serious setback. As a result of this failure, even the younger generation is reflecting the culture of the language they speak more by gradually modifying their names to be pronounceable in English (Ajepe and Ademowo, 2016).

However, if this setback will be addressed properly, Yoruba indigenous alphabet knowledge must be appropriately taught in a stimulating manner. Instead of using the traditional method(lecture method) of teaching alphabet knowledge, or using other means such as letter naming(Cindy et al, 2012; Puranik and Lonigan, 2011), Environmental print (Kuby and Aldridge, 2004), Differentiated instruction (Burgess, Driscoll, Phillips and Cantor, 2003). Games can also be used because it offers a unique structure to complement traditional teaching methods and instill teaching with energy, spark and provide diversity in teaching methods. Games also make learning concepts more palatable for learners (Susan, 2011).

More so, there are factors that could also influence the effectiveness of teaching alphabet knowledge. These factors include Home language (Abidogun, 2013; Jeroen, 2008; Lewis and Lockheed, 2006) and cultural background (Hinke, 1999; Peirce, 1995; Tseng, 2002). When these factors are also taken into consideration, it may foster the acquisition of children’s alphabet knowledge. Therefore, this study investigates the effect of indigenous alphabet game on the Yoruba alphabet knowledge of preschool children in Nigeria.

Literature Review

Theoretical Framework

This study is primarily based on Lev S. Vygotsky’s socio-cultural theory. Vygotsky argued that “the social dimension of consciousness is primary in time and in fact”. He argues that learning is a social process and the origination of human intelligence is in the society or culture (Lantolf, 2000).

This theory is relevant to the study particularly to indigenous language acquisition. Socio-cultural theory looks at the important contributions that society makes to individual development and also stresses the interaction between developing people and the culture in which they live. Since children are part of the society, it is necessary to integrate them properly into the culture of their people by allowing them to be taught and interact in the language of the immediate environment or the indigenous language which is used for

daily interaction in the family or the immediate community. This theory also stresses the importance of parental influence in cultural transmission in terms of language of instruction at home. Since Vygotsky's socio-cultural theory stresses the interaction between developing people and the culture in which they live, this points to the fact that educating children should be culturally appropriate.

Game Strategy and Alphabet Knowledge

In a study conducted by Shaeffer, J.S (2011) on using Mnemonic Strategies to teach letter and letter-sound correspondences found measurable improvement in the students' abilities to give letter names and sounds, Lieux, (2001) and Zumbach, Kumpf and Koch (2004) found no significant difference in knowledge acquisition between students who learned through ABL method and who learned through traditional method of teaching.

Research conducted by Susan, (2011) on Game base Learning submitted that using matching games for upper and lower case letter forms can be used to pass alphabet knowledge instruction. Also using action games to teach letter recognition has not been adequately explored. Games offer a unique structure to complement traditional teaching strategies and infuse teaching with energy, spark innovative thinking and provide diversity in teaching methods. Games make learning concepts more palatable for learners and supply them with a platform for their creative thoughts to bounce around. Most studies concentrated on the use of songs, instrumental literacy. More so, Local studies such as Animashahun(2007); Egnah (2010); Ihesie, G.C. (2011); Okigbo 2013 all concentrated on the effects of games on mathematics on both primary and secondary school students. No local literature abound on the use of games especially on the Yoruba alphabet knowledge of preschool pupils

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

- Ho₁: There is no significant main effect of treatment on indigenous alphabet knowledge of pre-school children in Nigeria
- Ho₂: There is no significant main effect of cultural background on indigenous alphabet knowledge of pre-school children in Ibadan metropolis
- Ho₃: There is no significant main effect of home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis
- Ho₄: There is no significant interaction effect of treatment and cultural background on indigenous alphabet knowledge of pre-school children in Ibadan metropolis
- Ho₅: There is no significant interaction effect of treatment and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis
- Ho₆: There is no significant interaction effect of cultural background and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Ho7: There is no significant interaction effect of treatment, cultural background and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Methodology

The study adopted a pretest, posttest, control group quasi experimental design. The study adopted a 2 x 2 x 2 factorial matrix which consisted of instructional strategies at 2 levels (one experimental group and one control group) moderator variables of home language at two levels (Yoruba language and other languages) and cultural background at two levels (Yoruba Tribe and non-Yoruba Tribe) In this study, multi-stage sampling procedure was adopted. The following stages were involved.

Stage I: Random sampling was used to select 2 local government areas from Ibadan metropolis (Ibadan North and Ibadan North East Local Government Area)

Stage II: Purposive random sampling was used to select nursery sections attached to primary schools that participated in the study. A school was considered eligible to participate in the study, if it meets the following criteria:

- I. Private schools with at least 5 years of existence
- II. Teachers Having Nigerian Certificate of Education as minimum qualification
- III. Preschool Caregivers/teachers willing to participate in the study.
- IV. Schools where the head-teachers were willing to allow children learn the alphabets in Yoruba language.

Stage III: Proportionate random sampling was used to select 1 private school from each of the two local government areas considered.

Stage IV: Random sampling was used to select one arm of Nursery II in each selected preschool. The purpose for random sampling is to give equal chance to all the Nursery II children in the selected schools.

Stage V: In each of the school, an intact one arm of the classrooms of nursery II was targeted for the study. The sample of the study comprised 25 pupils in nursery II private preschools within Ibadan metropolis.

Indigenous Alphabet Game pack, Preschool Children Indigenous Alphabet Knowledge Rating Scale ($r = 0.86$), Teachers Assessment Guide and two instructional guides were the research instruments used for data collection. Data were analysed using analysis of covariance, and Bonferere Post hoc tests.

The alphabet game pack titled “Lakanlaka” was used as one of the instructional resources for the study. It contained 50 rectangular cells with the Yoruba alphabet in each cell with colourful pictures representing the alphabets in other to aid the letter recognition. It was divided into two sections containing 25 letters each. The pack also contains two plastic counters. It is a re-design of the popular Yoruba game (Lakanlaka) which could be played by drawing the pattern on the sand or the floor. In this study, the game was designed on

a flex banner because of its durability and flexibility. It was simplified in other to make it age appropriate for pre-school children. Preschool Children Indigenous Alphabet Knowledge Rating Scale was self-designed by the researcher. It contains demographic information of children such as; Name, Class, Name of School, Cultural Background, and Home Language. It also contains 25 Yorùbá letters which was rated in three levels namely; correctly Pronounced, Wrong Pronunciation and No Response. It was arranged in normal order of standard alphabet usage and used to measure preschool children's Yorùbá alphabet knowledge.

The treatment implementation started with the oral recitation of the Yoruba alphabet by all preschool children that were involved in the study as the pre-test, during the second week. The following week, the children began the activities as stipulated in the instructional guild. The trained teachers selected for the study teach 5 Yoruba alphabet twice a week for three weeks. The preschool children were asked to orally recite the Yoruba alphabet as posttest. The study lasted for 8 weeks and was carried out by the research assistants and the researcher.

Findings

Testing the Null Hypotheses

Ho₁: There is no significant main effect of treatment on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Table 1.0: Summary of Analysis of Covariance (ANCOVA) Showing the Main Effect of Treatment on Indigenous Alphabet Knowledge of Preschool Children

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	361.325 ^a	7	51.618	3.529	.016	.592
Intercept	248.028	1	248.028	16.956	.001	.499
prescore	2.303	1	2.303	.157	.696	.009
One-way Interaction						
treatment	223.190	1	223.190	15.258	.001	.473
Cultural background	35.314	1	35.314	2.414	.139	.124
Home language	35.164	1	35.164	2.404	.139	.124
Two-way Interaction						
treatment * culturalbackground	.247	1	9.247	.632	.438	.036
treatment * homelanguage	1.772	1	1.772	.121	.732	.007
culturalbackground * homelanguage	36.892	1	36.892	2.522	.131	.129

Three-way Interaction				
treatment *	.000	0	.	.000
culturalbackground *				
homelanguage				
Error	248.675	17	14.628	
Total	8354.000	25		
Corrected Total	610.000	24		

a. R Squared = .592 (Adjusted R Squared = .424)

Table 1.0 show that there was a significant main effect of treatment on Yorùbá alphabet knowledge of preschool children ($F_{(1,17)}=15.26;P<0.05;\eta^2=0.47$). Therefore, hypothesis 1 is rejected. In order to determine the magnitude of significant main effect across the treatment groups, the estimated marginal mean of the treatment groups is presented in table 2.0

Table 2.0 Showing the Estimated Marginal Means Score on Alphabet Knowledge

Variable	Mean	Std. Error
Intercept		
Pre-Alphabet Knowledge	6.600	-
Post-Alphabet Knowledge	15.562	1.040
Treatment		
Control	11.895	1.694
Experimental	18.313	1.328
Cultural Background		
Yorùbá tribe	16.558	1.211
Other tribes	14.235	2.104
Home Language		
Yoruba language	15.027	1.692
Other languages	15.964	1.465

Table 2.0 shows that children exposed to Alphabet game strategy (lakanlaka) had the highest mean score (18.13).while the children exposed to the conventional (teacher-centered) method (11.89). This implies that children exposed to indigenous alphabet game had the highest mean.

Ho₂: There is no significant main effect of cultural background on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Table 1.0 show that there is no significant main effect of cultural background on indigenous alphabet knowledge of pre-school children ($F_{(1,17)}=2.41;P>0.05;\eta^2=0.12$). Therefore, Hypothesis 2 is not rejected.

Ho₃: There is no significant main effect of home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Table 1.0 show that there is no significant main effect of home language on indigenous alphabet knowledge of pre-school children ($F_{(1,17)}=2.40;P>0.05;\eta^2=0.12$). Therefore, Hypothesis 3 is not rejected.

Ho₄: There is no significant interaction effect of treatment and cultural background on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Table 1.0 also shows that there is no significant interaction effect of treatment and cultural background on indigenous alphabet knowledge of pre-school children ($F_{(1,17)}=0.63;P>0.05;\eta^2=0.04$). Therefore, Hypothesis 4 is not rejected.

Ho₅: There is no significant interaction effect of treatment and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Table 1.0 shows that there is no significant interaction effect of treatment and home language on indigenous alphabet knowledge of pre-school children ($F_{(1,17)}=0.12;P>0.05;\eta^2=0.01$). Therefore, Hypothesis 5 is not rejected.

Ho₆: There is no significant interaction effect of cultural background and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis

Table 1.0 shows that there is no significant interaction effect of cultural background and home language on indigenous alphabet knowledge of pre-school children ($F_{(1,17)}=2.52;P>0.05;\eta^2=0.13$). Hence, Hypothesis 6 is not rejected.

Ho₇: There is no significant interaction effect of treatment, cultural background and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis.

Table 1.0 shows that there is no significant interaction effect of treatment, cultural background and home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis ($F_{(0,17)}=0.00;P>0.05;\eta^2=0.00$). Hence, Hypothesis 7 is not rejected.

Discussion of Findings

The data analysis revealed in Table 1.0 shows that there was a significant main effect of treatment on Yorùbá alphabet knowledge of preschool children. This implies that the Yoruba alphabet knowledge of pupils significantly increased. It is important to note that the children's Yoruba alphabet knowledge was based on all the letters of the Yorùbá indigenous alphabet. At the pretest measures before the intervention was introduced, the rating of pupils' Yorùbá alphabet knowledge was 26.9% but after the introduction of the indigenous alphabet knowledge game (Lakanlaka) it increased to 73.1% which present the mean gain of 46.2%. This reveals that children's knowledge of Yorùbá alphabet knowledge is higher after the intervention compared to their knowledge before.

The improvement in children's Yoruba Alphabet knowledge can be attributed to the participatory style of the game, in the sense that children were very eager to play the game and obeyed every rule as well as pronouncing the right words at each jump after which they summarized all at the end of the finish spot. This is in support with Susan (2011) that games make learning concepts more palatable for learners. More so, it supports the findings of Iwuji (2012) that Activity-based strategy makes learning more

meaningful and when concepts are meaningfully learned, it enhances retention and heightens children's performance, achievement and widens the mental horizon of children.

The findings also revealed that there is no significant main effect of either cultural background or home language on indigenous alphabet knowledge of pre-school children in Ibadan metropolis. This implies that children can learn alphabet knowledge regardless of their cultural background or home language. Since children have been noted to have the potential to speak as many languages as they are exposed to easily during the early years, this may be the reason why there is no significant main effect of both variables. This negates the findings of Lewis and Lockheed, (2006) who established that Children who speak a language at home that is different from that used in school often encounter discrimination and learning challenges which can affect the way children acquire alphabet knowledge since there is a disconnection from the language they use every day at home.

Conclusion

It has been clarified through existing literatures that alphabet knowledge is a prerequisite to later competent display in language acquisition and proficiency and also that children learn best when the learning is made attractive and of interest to them. This study has shown that using what children can relate with within the context of their culture (in terms of using either modified or unmodified local games) can improve their learning, especially the indigenous alphabet knowledge.

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