

AN ASSESSMENT OF LITERACY SKILLS ACQUISITION AMONG PRESCHOOLERS IN SELECTED PUBLIC PRIMARY SCHOOLS IN LAGOS STATE

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Abstract

The study assessed Literacy Skills Acquisition among Preschoolers in Selected Public Primary Schools in Lagos State. Two objectives and hypotheses were formulated for this study. This study employed descriptive survey research design as information was sourced from many pupils in the state. Purposive sampling was used to identify Basic 5 and 6 pupils in Public and Private primary schools while simple random sampling technique was employed in the selection of 25 pupils from Basic 5 and 6 to form a sample of 100 pupils in Alimosho LGA in Lagos State. Literacy Skills Acquisition Questionnaire (LSAQ) was used in data collection as among preschoolers in selected public and private primary schools in Lagos State. Due to the tender nature of the pupils in item internalisation, their teachers who nurture and monitor them grow and develop assisted in filling the required questionnaires. Face and content validity was established and Cronbach-alpha coefficient value of .792 was obtained. Data was analysed via Analysis of Variance (ANOVA) and Post-Hoc statistics to show where the direction of the significance lies. Hypotheses were tested at .05 level of significance. The study revealed that acquisition of literacy skills among preschoolers is dependent on developmental, socio-environmental and latent ability of the child. It concluded that literacy skills acquisition among preschoolers in public primary schools remains suboptimal due to inadequate resources, limited teacher competence and environmental factors. The study recommended that government should strengthen teacher training programs to enhance early literacy pedagogy and classroom management in public preschools.

Keywords: Post-Hoc Statistics, Literacy Skills Acquisition, Preschoolers, Caregivers, Analysis of Variance

Introduction

The concept of literacy skills acquisition in the Nigerian context refers to the developmental process through which learners build the foundational abilities for reading, writing and effective communication. Beginning with emergent literacy in the home and early years and progressing through phonological awareness, letter sound knowledge (decoding), fluency, vocabulary and text comprehension. Nigerian national policy and programme documents frame literacy as both a learning outcome and a policy priority, directing that early grade instruction use appropriate language and structured curricula to develop basic literacy for all children (Okebukola, 2019).

Early childhood literacy is widely recognised as a foundational predictor of later academic achievement, social development and lifelong learning. Preschool experiences that promote emergent literacy like print awareness, alphabet knowledge, phonological awareness and oral languages strongly influence children's readiness for formal schooling and subsequent reading success. In Nigeria, there has been repeated highlight of weaknesses as identified in studies by Newman (2015) and Oyetunde (2016) in provision of early literacy in

many public schools, calling for programmatic and research attention to how preschool experiences translate into measurable literacy outcomes in primary grades.

Among other studies, that of Mangwat and Meshak (2022) highlights the instructional importance of systematic phonics and other explicit reading approaches for improving early reading outcomes in primary classrooms, while noting contextual constraints as language of instruction choices, limited instructional resources and uneven teacher preparation that shape how literacy skills are acquired in practice. The Nigerian Research and Policy treat literacy acquisition as an interaction of cognitive skills (phonemic and orthographic mapping), instructional practices (phonics, guided reading) and socio-cultural factors (home literacy, language policy, school resources). This implies that effective literacy development in Nigeria requires aligned curriculum, teacher training, and community support.

In one of the studies by Kim, (2015) that compares groups (children in different instructional programs, different teacher training conditions or different home language backgrounds) often uses analysis of variance (ANOVA) to test overall group differences. When ANOVA returns a statistically significant F-statistic, it only indicates that some group means difference. It does not identify which pairs of groups differ. Post-hoc statistical procedures using Tukey HSD, Bonferroni, Holm, Scheffé and Šidák are essential tools for disaggregating those differences while appropriately controlling Type I error across multiple comparisons.

A clear understanding and careful reporting of post-hoc choices are necessary for drawing valid conclusions about which instructional approaches or contextual factors are associated with stronger emergent literacy outcomes. Post Hoc statistics ensures the appropriate and actual group responsible for the identified differences captured. Although the mean scores give actual difference but the Post Hoc analysis identifies where the main difference lies or main contributor (Juarros-Basterretxea, 2024). A study by Musa (2025) carefully models literacy outcomes, applies appropriate omnibus tests and follows with transparent literacy skills acquisition, further stated that a well-chosen post-hoc analysis would advance both local evidence and methodological standards for Nigerian early childhood educational studies especially in the advancement of literacy skills acquisition among preschoolers.

Given the policy and practice stakes for early literacy, studies that only report omnibus tests without appropriate pairwise comparisons risk leaving educators and policymakers with incomplete or misleading guidance. In the Nigerian context where interventions vary based on the experience of the researcher, language of instruction policy and resource availability, rigorous post-hoc analysis allows researchers to specify which preschool experiences or program variants produce the largest gains in key literacy components. This precision matters when allocating scarce resources (teacher training, reading materials, play-based literacy resources) to the interventions that demonstrate work for particular subgroups of children (Adeyemi & Ajibade, 2021).

Again, another motivation for emphasising post-Hoc procedures in preschool literacy acquisition studies arises from general sampling realities in among preschoolers. Many studies compare more than two groups (different pedagogical approaches, urban vs. rural schools, or multiple age cohorts, public vs Private schools, Socio-Economic Status, High, Moderate and Low intelligence among others). Multiple pairwise tests without correction inflate the family-wise error rate thereby increase the chance of false positive findings. Overtly, conservative corrections can hide meaningful differences (reduce power) while selecting and justifying an appropriate post-hoc method that can lead to a substantive methodological decision that affects interpretation of literacy acquisition results (LibreTexts, 2025).

Statement of the Problem

Literacy skills acquisition among preschoolers in selected public primary schools has become a pressing concern due to persistent disparities in children's readiness for formal education and later academic success. Despite the inclusion of early literacy development in Nigeria's National Policy on Education (FRN, 2014), many preschoolers in public schools still struggle with foundational reading, phonemic awareness, vocabulary and comprehension skills compared to benchmarks expected at their developmental stage. Possible factors like inadequate instructional materials, overcrowded classrooms, poorly trained caregivers, inconsistent curriculum implementation and limited parental involvement may have been identified as contributory factors to weak literacy foundations among preschoolers. However socio-economic constraints in many public school

communities may also have exacerbated the problem by restricting access to quality preschool experiences and literacy enriched environment. As a result, children enter primary education with uneven literacy competencies thereby creating learning gaps that often persist throughout their schooling years. This situation underscores the urgent need for targeted interventions, teacher capacity development and evidence based pedagogical practices to improve literacy outcomes in public preschool settings, hence this among others endeared the researchers to investigate on how the use of Post-Hoc statistics can be help in the determination of actual contributor to Literacy Skills Acquisition among Preschoolers as against the excessive reliance on omnibus tests (ANOVA) in related studies.

Purpose of the Study

This study investigated the use of Post-hoc statistics in the determination of literacy skills acquisition among preschoolers in selected public primary schools in Lagos State while the specific objectives include are to:

- i. assess the difference in literacy skills acquisition among Preschoolers by gender; and
- ii. evaluate the difference in literacy skills acquisition of Preschoolers by public and private caregivers

Hypotheses

Two hypotheses were formulated for this study and tested at .05 level of significance.

H₀1: There is no significant difference in literacy skills acquisition among Preschoolers by gender

H₀2: There is no significant difference in literacy skills acquisition of Preschoolers by public and private caregivers

Methodology

This study employed descriptive survey research design as information was sourced from many pupils in the state. Multi-stage sampling procedure was used in this study as purposive sampling technique was used to identify Basic 5 and 6 pupils in Public and Private primary schools while simple random sampling technique was employed in the selection of 25 pupils each from Basic 5 and 6 to form a sample of 100 pupils in Alimosho LGA in Lagos State. The study employed the use of Preschoolers Literacy Skills Acquisition Questionnaire (PLSAQ) in data collection. The instrument was divided into two sections where Section A contained Bio-Data of respondents while Section B contained 20 closed ended items on 4-Likert Scale response format. as among preschoolers in selected public and private primary schools in Lagos State. Due to the tender nature of the pupils in item internalisation, class teachers assisted in filling the required questionnaires. Face and content validity was established and Cronbach-alpha coefficient value of .792 was obtained. Data was analyzed via Analysis of Variance (ANOVA) and Post-Hoc statistics to show where the direction of the significance lies. All hypotheses were tested at .05 level of significance.

Results

H₁: There is no significant difference in literacy skills acquisition among Preschoolers by gender

Table 1: ANOVA Analysis showing significant difference in Literacy Skills Acquisition Among Preschoolers by gender

	Sum of Square	Df	Mean Square	F	Sig
Between Groups	415.176	2	207.588	3.990	.004
Within Groups	5098.202	98	52.022		
Total		100			

Source: Researchers work (2025)

The data in ANOVA Table 1 reveals that at between groups sum of squares 415.176 with degree of freedom 2 and mean square 207.588, within groups sum of squares 5098.202 with degree of freedom 98 and mean square 52.022; With the calculated F-value of 3.990 and significant at .004 ($P < .05$). Since the p-value is less than the 0.05 level of significance, the result indicates that there is a statistically significant difference in literacy skills acquisition among preschoolers by gender.

Table 2: Post Hoc Test for Multiple Comparisons of the difference in Literacy Skills Acquisition among preschoolers by gender

(I) Variable	(J) Variable	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Male	Basic 5	-6.58960 [*]	.37468	.012	-1.5867	-.1145
	Basic 6	-3.78502 [*]	.37468	.006	-4.3970	-2.9248
Female	Basic 5	2.81034 [*]	.37468	.000	2.0743	3.5464
	Basic 6	3.44433 [*]	.37468	.000	2.9248	4.3970

Source: Researchers work (2025)

Data in Table 2 shows that the LSD Post Hoc Test was used to determine the direction of differences in the data generated. Male to Basic 5 is significant at .012, Male to Basic 6 at .006; Female to Basic 5 is significant at .000, Female to Basic 6 is significant at .000 respectively. Hence the difference in the difference is attributed to female preschoolers with sig-value of .000 ($p < .05$).

H₂: There is no significant difference in literacy skills acquisition of Preschoolers by public and private caregivers

Table 3: ANOVA Analysis showing significant difference in Literacy Skills Acquisition of Preschoolers by public and private caregivers

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	709.405	2	354.703	5.638.	.000
Within Groups	6165.398	98	62.912		
Total		100			

Source: Researchers work (2025)

The data in ANOVA Table 3 reveals that between groups sum of squares 709.405 with degree of freedom 2 and mean square 354.703, within groups sum of squares 6165.398 with degree of freedom 98 and mean square 62.912; With the calculated F-value of 5.638 and significant at .000 ($P < .05$). Since the p-value is less than the 0.05 level of significance, the result indicates that there is a statistically significant difference in literacy skills acquisition among preschoolers by nature of schools.

Table 4: Post Hoc Test for Multiple Comparisons of the difference in Literacy Skills of Pupils in Public and Private Primary Schools

(I) Variable	(J)Variable	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
		(I-J)			Lower Bound	Upper Bound
Public	Basic 5	-.61090 [*]	.56464	.029	-1.5674	-.10953
	Basic 6	-3.46572 [*]	.56464	.041	-4.4406	-2.4356
Private	Basic 5	3.84352 [*]	.56464	.000	2.5647	3.1234
	Basic 6	4.75867 [*]	.56464	.000	2.5643	4.1123

Source: Researchers work (2025)

Data in Table 4 shows that the LSD Post Hoc Test was used to determine the direction of differences in the data generated. Public to Basic 5 is significant at .029, Public to Basic 6 at .041; Private to Basic 5 is significant at .000, Private to Basic 6 is significant at .000 respectively. Hence the difference in the difference is attributed to private school preschoolers with sig-value of .000 ($p < .05$).

Discussion of Findings

The result in hypothesis one reveals that there is a significant difference in literacy skills acquisition among Preschoolers by gender. This is so as gender has been identified as one of the contributors to literacy skills acquisition among preschoolers. The study consistently finds a small but reliable female advantage in early literacy as girls tend to enter school with stronger oral language and pre-reading skills on the average and outperform boys on early reading measures an indication that often widens across the school years. This gender difference appears in large scale reviews and meta-analyses and is partly explained by differences in home literacy environments, patterns of parental linguistic engagement and the ways boys and girls respond to early instruction. However, effect sizes are always modest and interact with socio-economic, cultural and programmatic factors so that these gray areas vary by context. The outcome of this study conforms to that of Magnuson (2016) and Etchell (2018) who suggested sex moderates the relationship between family/play factors and emergent literacy, reinforcing that local household and program conditions shape observed differences. Stating that female preschoolers due to natural composition acquire better and faster literacy skills than their male counterparts when growing up.

Result from hypothesis two reveals that there is a significant difference in literacy skills acquisition of Preschoolers by public and private caregivers. Preschoolers' literacy acquisition often differs between those cared for in public versus private settings, but the gap is driven more by program quality, resources and family selection than by sector alone. In Nigeria specifically, evaluations point to considerable within country variation where differences in literacy skills acquisition between public and private preschoolers are often linked to the extent and level of funding, available classroom materials and home literacy environments rather than being an inherent public-private split. The findings of this study corroborates with studies by Azubuike *et. al.*, (2024) and Oyinlola (2014) who stated that preschoolers in private schools acquire literacy skills better than their public school counterparts due to prevalent environment they find themselves. In private schools due to close monitoring and periodic evaluation teachers are privy to in-service training, curricular supports, and parental engagement at intervals on the well-being of their children while those of public are deficient in these areas thereby contributing to deficiency in acquisition of literacy skills.

Conclusion

The study concludes that literacy skills acquisition among preschoolers in public primary schools remains suboptimal due to inadequate resources, limited teacher competence and environmental factors. It also suggests

that without deliberate policy action and pedagogical reforms, the nation risks perpetuating early learning inequalities that hinder long-term educational achievement of pupils.

Recommendations

The study identified numerous recommendations, however, the stated ones includes the following:

1. Government across federal, state and local levels can strengthen teacher training programs to enhance early literacy pedagogy and classroom management in public preschools.
2. Parental and community involvement in literacy-related activities can also be promoted through adequate and timely sensitization and literacy awareness programs.
3. Evaluators, curriculum developers and assessors of early childhood education programs can organise regular monitoring and evaluation activities of early childhood literacy curricula in other to ensure that gray areas are modified, ambiguous areas expunged and important areas are better enhanced for further implementation.
4. Adequate funding and provision of age-appropriate reading materials, visual aids and interactive learning tools be prioritized by government and NGOs; Partnerships between government, NGOs and educational researchers can be fostered to design and scale up evidence-based early literacy interventions.

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