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Critical Analysis Of Modern Learning Methods (MLM) In Developing Foundational Literacy Skills Among Primary Educators In Rivers State

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ABSTRACT
Primary education is the cornerstone of acquiring literacy skills, yet the majority of conventional teaching methods in Nigeria are not responsive to varying needs. This research assessed the contribution of Critical Analysis of Modern Learning Methods (MLM), including phonics-based teaching, computer-based technologies, and interactive storytelling, towards the acquisition of basic literacy skills, such as reading fluency, vocabulary, comprehension, and writing, among primary educators in Rivers State. Descriptive survey design was employed, and 100 early childhood teachers were randomly selected from 10 public schools. Data were collected via the Role of MLM in Foundational Literacy Questionnaire (RMFLQ), which was validated by experts (Cronbach's $\alpha = 0.78$), and analyzed via ANOVA. Results indicated that there were significant gains in literacy skills for children in the high MLM exposure condition relative to their low-exposure counterparts ($F(2,97) = 12.46$, $*p* < 0.001$, $\eta^2 = 0.205$); large effect sizes were again noted (Cohen's $*d* = 1.18$). The degree of teachers' familiarity with MLMs also impacted effectiveness in implementation significantly, $F(2,97) = 9.87$, $*p* < 0.001$, $\eta^2 = 0.169$. Only high familiarity generated significant gains over moderate/low familiarity, Cohen's $*d* = 1.02$. The greatest obstacles were teacher preparation and limited resources. It is concluded from this study that MLM, particularly when used intensively by well-trained teachers, enhances early literacy. It is thus recommended that teachers are prepared via training on MLM and there is adequate provision of resources for them to enter primary educator classrooms.
Keywords: Modern Learning Methods, Foundational Literacy, Primary Education, Teachers, Rivers State

INTRODUCTION
Primary education fosters intellectual, social, and emotional growth, empowering children to excel in later learning settings (Federal Republic of Nigeria, FGN, 2013). Literacy skills that are acquired during the early phases shape the foundation of a child's educational journey, enabling them to read, write, and communicate well. All these skills can be grouped into four broad components: reading fluency, vocabulary, comprehension, and writing (Ogunlade & Adeyemi, 2020). Reading fluency is the skill of reading text correctly, effortlessly, and with the right tone. It is very important for understanding written content. Vocabulary acquisition entails augmenting a learner's lexicon to enable unambiguous expression of concepts and comprehension of intricate texts. Reading comprehension includes being able to read and understand what you read, as well as connecting new information to what you already know. Writing compels students to structure their ideas in a logical manner and express themselves creatively or

analytically. Ogunlade and Adeyemi (2020) point out that fundamental literacy skills are particularly crucial in primary school education in Nigeria because they form the building blocks for scholastic success in every subject.

Acquisition of essential literacy skills is accorded special priority in primary education, which is a critical period of cognitive and linguistic development. Nigeria's primary system targets 6-year-old children and is designed to provide a care-based environment for overall development. It emphasizes learning through play, socialization, and the acquisition of basic literacy and numeracy skills. It aligns with global best practice with culturally relevant content to ensure that it is inclusive and relevant. The Nigerian primary system recognizes, as per Akinwumi and Oladunjoye (2021), that there is a necessity to pre-prepare young children with a basic literacy skill set before they move into formal schooling at the age of 6.

Fluency of reading lies at the core of foundation literacy's establishment, since it provides the basis between decoding words and understanding their meaning. Fluent readers can read text smoothly and quickly, making higher-level cognitive dispositions free to be used for better understanding. Phonic teaching has been effective in creating reading fluency among Nigerian children by introducing them to letter-sound relationship and rules of decoding. Overcrowded classroom challenges and lack of age-specific reading material, however, hinder progress here. Research evidence from Okoro and Nwankwo (2022) indicates that interventions aimed at improving Nigerian children's reading fluency, particularly among underserved populations.

Building vocabulary is also an important part of learning to read, and it has a direct effect on how well a child can read and enjoy reading. Children learn new words by being around a lot of language, like in conversations, stories, and reading aloud. In Nigerian primary education, new words and their meanings are taught through play and interactive storytelling. Lessons include traditional folktales and songs to make learning vocabulary more fun and relevant to other cultures. As Okafor and Uche (2023) elaborate, building vocabulary among primary school students not only enhances literacy but also solidifies cultural awareness and identity.

Comprehension is probably the hardest part of early literacy since it has young children analyse, infer, and put together information from texts. In Nigerian primary education, comprehension skills are fostered through guided talks, question-and-answer activities, and experiential projects that encourage critical thinking. Teachers are very important for showing students how to use comprehension tactics including guessing what comes next, restating the main concepts, and finding clear connections between texts and their own lives. Adesina and Olawale (2024) say that adding comprehension-based exercises to everyday classes helps young children get ready for the challenges of formal learning.

Writing, the last part of early literacy, lets children show what they know about language structure and express their thoughts. In Nigeria's early childhood education system, pupils learn to write step by step. They start by sketching and marking pictures and then move on to making simple words. Making storybooks or writing letters to imaginary pals are examples of play that make writing joyful and important for young children. Iwuagwu and Chukwuemeka (2023) assert that cultivating an interest in writing in early life establishes a robust basis for subsequent academic success and creative endeavours.

Despite the recognised importance of early literacy skills, significant challenges persist in the implementation of successful early childhood education programs across Nigeria. Problems with teacher training, instructional materials, and social and economic inequality make it hard to provide good education. To get over these problems, everyone involved will need to work together to help teachers improve their skills, provide resources that are both culturally relevant and good for teaching. Onuoha and Ezeudu (2022) say that developing solid root literacy abilities early in life is the key to ending the cycle of poor educational performance and making sure that everyone has equal access to learning opportunities.

The conventional pedagogical method has proven inadequate in captivating young children and accommodating varied learning requirements. Modern Learning Methods (MLM) are a group of new ways to teach that aim to improve learning by getting students involved and customising the process. Some examples are phonics-based instruction, digital learning tools, interactive storytelling, play-based

learning, and blended learning. Phonics-based instruction is a key aspect of MLM, especially in early childhood education. It teaches children how sounds and letters work together so they may learn to decode better (Ogunlade et al., 2020). Okeke and Eze (2021) say that phonics-based instruction helps learners become more conscious of phonemes. Digital learning tools, on the other hand, use technology to create immersive experiences. Interactive storytelling fosters creativity and understanding, while play-based learning encourages exploration and problem-solving. Blended instruction mixes traditional teaching with online resources, which allows for flexibility and change.

Shenoy et al. (2022) demonstrate that phonics instruction significantly enhances the foundational reading skills of kindergarten children, with considerable effect sizes (d=1.19 to d=1.42) in comparison to peers lacking phonics education. Gupta (2014) criticises the Alphabet-Spelling method, which relies on memorisation and sight word recognition with limited understanding. Phonics, on the other hand, focusses on letter-sound relationships, which makes reading easier and improves long-term reading. Torgesen (2000) and Ehri et al. (2001), as cited in Shenoy et al. (2022), emphasise that specific phonics instruction is essential for struggling learners, especially English language learners, with the National Reading Panel establishing its role in mitigating reading difficulties.

The switch to MLM means moving away from rote learning, which is focused on memorisation rather than comprehension, and towards inquiry and experience-based learning. MLM facilities that use computers give students access to multimedia tools, simulations, and virtual labs, which helps them think more deeply. Adeyemi and Ogunleye (2020) say again that this change gets Nigerian students ready for jobs in the 21st century. Abdullateef (2021) discovered that technologies such as Discussion Forums, Kahoot, Padlet, and FlipGrid foster critical thinking, communication, collaboration, and creativity, with most students exhibiting enhanced creativity and improved involvement.

Abdullateef (2021) used Resta and Laferrière (2007) to illustrate that technology enhances collaboration in knowledge generation and peer-to-peer interaction, aligning with Vygotsky's social constructivism theory. Zucker & Fisch (2019) elucidated the engagement and retention benefits of Kahoot's game-based quizzes for students, while Islam, Beer, and Slack (2015) identified challenges including technological difficulties and the need for teacher training. Abdullateef (2021) suggests a balance between synchronous and asynchronous tools to cater to diverse learning styles.

MLM uses interactive methods including play-based learning and stories to make learning interesting and useful. This helps young children learn to read and write while also helping them grow socially and emotionally (Oluwafemi & Adebayo, 2023). Online learning may be tailored to fit the needs of each student, which is very different from the strict one-size-fits-all approach of rote learning (Okoro & Nwankwo, 2022). Hybrid learning blends in-person and online learning, which makes flipped classrooms possible and makes it easier for pupils to learn on their own (Adesina & Olawale, 2024).

Phonics instruction and interactive reading cater to the diverse competencies and learning styles of students, effectively engaging both visual and auditory learners while assisting those who are suffering with reading. Iwuagwu and Chukwuemeka (2023) emphasise the necessity for inclusive MLM practices to guarantee equitable access to education. However, issues including poor infrastructure, a lack of teacher preparation, and a refusal to adapt still exist. Okafor and Uche (2025) assert that initiatives by governmental bodies, non-governmental organisations, and the business sector are gradually surmounting these challenges.

Modern Learning Methods is a big change from learning by heart to learning in a way that is more interactive and focused on the student. MLM helps young children do well in a changing world by using phonics, digital media, interactive storytelling, play-based learning, and integrated learning. Despite difficulties, research conducted by Nigerian scholars demonstrates MLM's efficacy in enhancing educational outcomes and promoting holistic child development. Onuoha and Ezeudu (2022) contend that the application of MLM is crucial for the reformation of Nigeria's education system. However, despite their promise, the adoption of MLM in primary school classrooms in Rivers State is limited. Therefore, it is necessary to evaluate MLM's role in the development of foundational reading skills and to suggest improvements for educational practice.

Statement of the Problem

While various studies have been carried out on the benefits of MLM in education, there is not much published literature on how they specifically contribute to the development of foundational literacy skills among primary educator in Rivers State. The absence of information calls for more study to ensure the implementation of proper strategies for integrating MLM into primary schools and improving learning outcomes.

Purpose of the Study

The main purpose of this study is to assess the role of Modern Learning Methods (MLM) in developing foundational literacy skills in primary education classrooms within Rivers State. Specifically, the study aims to:

1. Determine the relationship between the use of MLM and improved foundational literacy skills among primary school learners.
2. Investigate the influence of teachers' familiarity with MLM on their ability to implement these methods effectively.

Research Hypotheses

The following research hypotheses were formulated to guide the study:

H_{01}: There is no significant relationship between the use of MLM and improved foundational literacy skills among primary school learners.

H_{02}: Teachers' familiarity with MLM has no significant influence on their ability to implement these methods effectively.

METHODOLOGY

The research is a descriptive survey research method. In this research, the population was represented by all the public-school primary education teachers within Rivers State. A random sample of 100 participants was drawn from 10 schools. The researchers developed a 4-point Likert-type instrument called "Role of MLM in Foundational Literacy Questionnaire (RMFLQ)" which consists of 20 items. Content validity of the questionnaire was ascertained by two primary education experts, whereas reliability was ensured by a test-retest method with a reliability coefficient of 0.78. Data analysis was carried out using one-way analysis of variance (ANOVA) with a level of significance of 0.05.

RESULTS

H_{01}: There is no significant relationship between the use of MLM and improved foundational literacy skills among primary school learners

Table 1.0: One-Way ANOVA on the relationship between MLM usage and foundational literacy skills.

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	Decision
Between Groups	320.75	2	160.38	12.46	<0.001	Reject H_0
Within Groups	1245.50	97	12.84			
Total	**1566.25**	**99**				

Table 1.1: Post-Hoc Tests (Tukey's HSD) – Comparison of MLM Usage Groups (Low, Moderate, High):

Comparison	Mean Difference	SE	95% CI	P	Cohen's d
High vs. Low MLM	4.25*	0.98	[2.15, 6.35]	<0.001	1.18
High vs. Moderate MLM	2.80*	0.87	[0.95, 4.65]	0.003	0.78
Moderate vs. Low MLM	1.45	0.92	[-0.40, 3.30]	0.154	0.40

The research hypothesis one revealed statistically significant differences in foundational literacy skills across Modern Learning Methods (MLM) usage groups ($F(2,97) = 12.46$, $p < 0.001$), with a large effect size ($\eta^2 = 0.205$). Post-hoc Tukey's HSD tests indicated that children with high MLM exposure significantly outperformed both low-exposure (mean difference = 4.25, $p < 0.001$, Cohen's $d = 1.18$) and moderate-exposure peers (mean difference = 2.80, $p = 0.003$, Cohen's $d = 0.78$), demonstrating large practical effects. However, no significant difference emerged between moderate and low MLM groups ($p = 0.154$). These findings reject the null hypothesis, confirming that high MLM usage substantially enhances foundational literacy skills, whereas moderate exposure does not yield statistically superior outcomes compared to low usage.

H_{o2}: Teachers' familiarity with MLM has no significant influence on their ability to implement these methods effectively.

Table 2.0: One-Way ANOVA on the influence of teachers' familiarity with MLM on implementation effectiveness.

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	Decision
Between Groups	285.60	2	142.80	9.87	<0.001	Reject H_0
Within Groups	1401.20	97	14.45			
Total	1686.80	99				

Table 2.1: Post-Hoc Tests (Tukey's HSD) – Comparison of Teacher Familiarity Groups (Low, Moderate, High):

Comparison	Mean Difference	SE	95% CI	p	Cohen's d
High vs. Low Familiarity	3.90*	1.02	[1.65, 6.15]	<0.001	1.02
High vs. Moderate Familiarity	2.30*	0.91	[0.45, 4.15]	0.012	0.60
Moderate vs. Low Familiarity	1.60	0.95	[-0.30, 3.50]	0.112	0.42

Hypothesis two results revealed statistically significant differences in implementation effectiveness based on teachers' familiarity with Modern Learning Methods ($F(2,97) = 9.87$, $p < 0.001$), with a medium effect size ($\eta^2 = 0.169$), indicating that 16.9% of the variance in implementation quality was attributable to familiarity levels. Post-hoc comparisons (Tukey's HSD) revealed that educators with extensive MLM familiarity considerably surpassed both their low-familiarity ($p < 0.001$, Cohen's $d = 1.02$) and moderate-familiarity counterparts ($p = 0.012$, Cohen's $d = 0.60$), exhibiting substantial to moderate practical impacts. However, there was no significant difference between the moderate and low familiarity groups ($p = 0.112$), indicating a threshold effect in which only high familiarity produces considerable enhancements. These results disprove the null hypothesis, demonstrating that advanced MLM familiarity significantly improves teachers' implementation effectiveness, whereas moderate familiarity alone may not be adequate to yield meaningful improvements compared to low familiarity.

DISCUSSION OF FINDINGS

The results of this study emphasise the substantial influence of extensive Modern Learning Methods (MLM) application on fundamental reading abilities, corroborating prior research that illustrates the transformative capacity of novel pedagogical strategies. The findings indicate that children with significant exposure to MLM exhibited significantly enhanced reading outcomes relative to their peers with moderate or minimal exposure, implying that rigorous engagement with these methodologies promotes deeper learning and skill acquisition. This aligns with the assertions of Okeke and Eze (2021), who contended that immersive and technology-integrated learning settings substantially improve literacy development by offering personalised and interactive experiences. The absence of a significant difference between moderate and low MLM groups underscores the imperative for sustained and meaningful engagement with MLM to realise substantial educational benefits. This assertion is corroborated by Adeyemi and Ogunleye (2020), who observed that inconsistent or limited utilisation of contemporary pedagogical tools frequently fails to produce measurable enhancements in learning outcomes. These data collectively confirm the essential importance of substantial MLM exposure in enhancing core literacy abilities.

The results of hypothesis two underscore the pivotal significance of teachers' knowledge with Modern Learning Methods (MLM) in assessing the efficacy of their implementation, stressing the necessity for advanced competency to realise significant enhancements. The results show that teachers who were very familiar with MLM did far better than those who were only somewhat or not at all familiar with it. This shows how important it is to be deeply engaged with and master MLM in order to get the best educational results. This is in line with what Okoro and Nwankwo (2022) said, which is that instructors' confidence and skill in using current teaching tools are very important for successful classroom integration. This is because teachers who aren't well-trained typically have trouble using these approaches well. Moreover, the lack of significant differences between moderate and low familiarity groups indicates a threshold effect, wherein only considerable expertise results in meaningful benefits. This concept is corroborated by Adesina and Olawale (2024), who asserted that superficial or partial comprehension of MLM is improbable to produce notable enhancements in teaching quality. These data collectively confirm that augmenting teachers' expertise with MLM through focused professional development is crucial for optimising implementation efficacy.

CONCLUSION

From the evidence, the study highlights the critical analysis of Modern Learning Methods (MLM) to enhance primary school pupils' foundational literacy skills in Rivers State. From the evidence, high exposure to MLM significantly boosts literacy performance, indicating how critical extensive and prolonged engagement with such modern methods is. Furthermore, teachers' greater familiarity with MLM is a key driver of successful implementation since only those teachers who had high levels of expertise demonstrated greater teaching quality compared to their less familiarized peers. The results underscore the need for long-term commitment to professional development programs and infrastructure to equip teachers with the knowledge and resources required to effectively integrate MLM into primary education. By addressing shortcomings such as inadequate training and lack of access to instructional materials, stakeholders can bridge gaps in educational equity and allow all children to develop strong foundational literacy skills. Not only does this research refute the null hypotheses, but also it verifies the paramount necessity to incorporate student-centered, dynamic instructional strategies to provide young learners with lifelong academic success and holistic development. With Nigeria's efforts to revamp its education sector, incorporating MLM in primary education becomes a necessary step towards raising a generation of educated, confident, and culturally aware citizens.

RECOMMENDATIONS

Based on the findings and conclusions of this study, the following recommendations are proposed:

1. Teachers should integrate MLM into their teaching practices to create interactive and engaging learning experiences for primary school learners.

2. Government and stakeholders should provide adequate resources, including training programs and technological tools, to support teachers in adopting MLM.
3. Continuous professional development programs should be organized for teachers to equip them with strategies for effectively using MLM in primary education.

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