

TO EXPLORE THE USE OF OBJECT, PLAY MATERIALS AS A PEDAGOGICAL APPROACH BY TEACHERS IN FACILITATING LITERACY DEVELOPMENT IN PRE-PRIMARY SCHOOLS IN KENYA



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ABSTRACT

This study explored the use of object play materials as a pedagogical approach by teachers in facilitating literacy development in pre-primary schools in Kenya. Grounded in Jean Piaget's Theory of Cognitive Development which posits that children actively construct knowledge through interaction with their physical environment. A qualitative research approach with phenomenological design was adopted to gain deep insights into teachers' lived experiences and practices.

The target population included pre-primary school teachers, lead teachers, head teachers, and ECDE sub-county coordinator. Purposive and saturated sampling techniques were used to select a total of 40 participants. Data were collected using in-depth interviews, focus group discussions and classroom observation protocols. Trustworthiness was ensured through credibility, transferability, dependability, and confirmability.

Data were analyzed thematically. The findings revealed that teachers recognized object play materials as effective tools for enhancing literacy skills such as vocabulary building, letter recognition, and comprehension. However, challenges such as limited resources, lack of training, and large class sizes impeded their full utilization. The study concludes that object play enhances learner engagement and literacy acquisition when properly integrated into instruction.

It recommends teacher training, provision of adequate play materials, and inclusion of object play strategies in instructional guidelines to strengthen literacy outcomes in early years' education.

Keywords: Object Play Materials; Literacy Development; Play-Based Learning; Early childhood Education; Pre-primary Education; Literacy Instruction; Pedagogical Approaches; Kenya

1. INTRODUCTION

Object play materials such as blocks, beads, puzzles, and letter tiles are essential tools in early childhood education, particularly in supporting literacy development. Through manipulation and exploration, young learners begin to build foundational skills in language, communication, and symbolic thinking. According to Jean Piaget's cognitive development theory, children learn best through active engagement with their environment, and object play facilitates such interaction by stimulating curiosity and problem-solving. Vygotsky's sociocultural theory also supports this, emphasizing that when children use play materials during guided play, their learning is scaffolded through interaction with more knowledgeable others, such as teachers.

In Kenyan pre-primary context, the competency-Based Curriculum (CBC) advocates for the use of interactive, learner-centered strategies including play based approaches to foster holistic development. Despite this policy emphasis, the practical integration of object play materials into literacy instruction remains varied. This study therefore explores how teachers use object play pedagogically to facilitate literacy development in pre-primary schools across Kenya.

Theoretical Framework

This study is grounded in Jean Piaget's Theory of Cognitive Development, which posits that children actively construct knowledge through interaction with their physical environment. In the preoperational stage (ages 2-7), children begin to use symbols and language to represent objects. Piaget emphasized the importance of manipulative and exploratory play in developing cognitive structures. Object play materials such as letter blocks, sorting trays, and word-building games align with this stage as they offer children opportunities to engage in hands-on learning, promoting both cognitive and linguistic development.

Additionally, Lev Vygotsky's Sociocultural Theory supports the integration of object play in literacy instruction. Vygotsky argued that learning occurs through social interaction within a learner's Zone of Proximal Development (ZPD), where children can perform tasks with the knowledgeable other, such as a teacher. Object play provides a meaningful, interactive context where literacy concepts can be introduced and scaffolded, enhancing comprehension and retention. Both Piaget and Vygotsky underscore the significance of play-based, interactive, and developmentally appropriate approaches in early childhood education. Their theories collectively support the use of object play materials as effective pedagogical tools for facilitating literacy development in pre-primary schools.

2. LITERATURE REVIEW

Globally, the use of object play materials has been widely recognized in early literacy development. Studies by Whitebread et al. (2017) in the UK emphasize that manipulatives such as blocks, letters, and symbolic toys stimulate children's cognitive and language skills by encouraging exploration and verbal expression. The Reggio Emilia approach in Italy promotes learning through materials that provoke thinking and language, highlighting how object play fosters communication, imagination, and early literacy.

Theoretically grounding is drawn from Jean Piaget's constructivist theory, which emphasizes the importance of active learning through manipulation of physical objects in the environment. According to Piaget, hands-on play materials help children form mental representations critical for reading and writing.

In the United States, Nell and Drew (2020) found that integrating object-based play into classroom literacy centers led to improved letter recognition and vocabulary acquisition. Maria Montessori's method also supports the use of sensory-rich materials for phonemic awareness and early reading skills, promoting independence and internal motivation among learners.

In Sub-Sahara Arica, studies have shown growing appreciation of object play in literacy teaching. Otieno & Mugambi (2019) found that in Nigeria and Uganda, the integration of local play materials such as stones, sticks, and bottle tops into language lessons supported phonological awareness and improved learner engagement. These studies reflect Vygotsky's sociocultural theory, which supports the idea that learning is enhanced through culturally relevant tools and guided interaction with adults.

Locally, Wambiri and Mokeira (2021), noted that while Kenyan teachers acknowledge the value of object play in literacy instruction, there are challenges such as lack of training, inadequate resources, and pressure from formal curricula. A study in Kisumu County by Odhiambo (2022) revealed that teachers used bottle tops, letter blocks, and flashcards to teach reading and spelling, though inconsistently. The findings align with John Dewey's experiential learning theory, which emphasizes learning through doing and interaction with real materials.

Despite positive findings, most local studies fail to analyze how teachers pedagogically integrate object play in structured literacy instruction. There is limited empirical data on teacher preparedness, planning, and consistency in using these materials across different learning contexts.

Goal of the Study

Goal of the study goal of this study was to explore how pre-primary school teachers in Kenya utilize object play materials as a pedagogical approach to facilitate literacy development among young learners. The study aimed to gain in-depth insights into teachers' experiences, strategies, and challenges in using object play to enhance literacy skills in early childhood classrooms.

3. METHODS

Research Design

This study adopted a phenomenological research design, which is a qualitative approach focused on exploring and understanding the lived experiences of individuals. The design was appropriate for this study as it allowed the researcher to gather in-depth insights into how pre-primary teachers use object play materials to support literacy development. Through interviews, focus group discussions, and classroom observations, the study captured the perceptions, practices, and experiences of teachers regarding object play as a pedagogical tool.

Study participants

The study involved key stakeholders in early childhood education within selected public pre-primary schools in Kenya. Participants included pre-primary school teachers who directly use object play materials in their literacy instruction, lead teachers responsible for guiding pedagogical practices, head teachers who oversee curriculum implementation, and the ECDE sub-county coordinator who provides administrative and professional support. These participants were selected based on their roles in literacy instruction and their ability to provide relevant, experience-based information.

Research tools

To collect in-depth data for this study, the following qualitative research tools were used:

1. In-Depth Interviews

Conducted with the ECDE sub-county coordinator and public primary school head teachers to gather administrative and supervisory insights on the use of object play materials in literacy instruction.

2. Focus Group Discussions (FGDs)

Held with pre-primary school teachers to explore shared experiences, perceptions, and challenges integrating object play materials into literacy teaching.

3. Classroom Observation Protocol

Use to observe lead teachers during actual classroom sessions. This tool helped document how object play materials were used in real-time to support literacy development.

These tools were selected to ensure triangulation of data, allowing a comprehensive understanding of the pedagogical use of object play materials in different educational roles and contexts.

Procedure

The study followed a systematic procedure to secure credibility and ethical compliance. First, the researcher obtained an introduction letter from the Director, School of Postgraduate Studies at Jaramogi Oginga Odinga University of Science and Technology. Ethical clearance was then granted by the University's Ethics Review Committee. A research permit was secured from the National Commission for Science, Technology and Innovation (NACOSTI), followed by permissions from the Kisumu County and Sub-County education offices.

After approvals, the researcher visited selected schools to seek informed consent from participants. Data were collected through in-depth interviews with the ECDE sub-county coordinator and head teachers, focus group discussions with pre-primary teachers, and classroom observations of lead teachers. All interactions were conducted in a respectful, confidential, and professional manner.

Data analysis

Data collected from interviews, focus group discussions, and classroom observations were analyzed thematically. The researcher transcribed all audio recordings and reviewed observation notes to identify recurring patterns and themes aligned with the study objective. Coding was done manually, and similar ideas were grouped to form categories. These categories were then interpreted to generate meaningful themes that reflected teachers' use of object play materials in literacy development. Verbatim quotes were used to support findings, ensuring authenticity and clarity. The analysis aimed to present a rich, descriptive understanding of participants' experiences and instructional practices.

Findings

The study revealed that pre-primary school teachers widely acknowledged the educational value of object play materials in enhancing literacy development. Teachers reported using locally available materials such as bottle tops, sticks, beads, and flashcards to support letter recognition, word formation, and storytelling activities. These materials were found to stimulate learners' interest, improve vocabulary and enhance letter-sound association.

However, the findings also indicated inconsistencies in usage, with some teachers citing lack of adequate training, limited resources, and large class sizes as key challenges. Despite these constraints, teachers who creatively integrated object play materials into their lessons observed improved learner engagement and better literacy outcomes.

Overall, object play materials were seen not only as instructional aids but also as tools that encouraged hands-on learning, creativity, and active participation among learners.

Motivation of Learners

To motivate in this case means to trigger and create eagerness and interest among learners to learn through active participation. Many participants in in-depth interview declared that use of object play material as a pedagogic approach actual teaching motivated learner. For example, an administrator illustrated that:

“Whenever I go to their classes with or without their teachers, I usually find them busy learning numbers or letters on the colorful wall charts in class. I find some playing with the available materials in class although few because at times I find them struggling over a ball or rope. I think it is very effective for teaching young children.” (FGD 8)

On motivation an administrator supported the idea that object play material as a pedagogical approach motivates learners by saying:

“In this case honestly, it is apparent that only trained teachers can use object play material as a pedagogical approach in teaching but the untrained obviously use single subject approach. Basically, object play material as a pedagogical approach is meant to bring all learners with their varied abilities and interests on board. Whenever I visit pre-primary schools, I find children playing with materials, singing and even dancing both in and out of class with their teachers. They sound happy and they seem to be enjoying their lesson.” (INTSC)

Equally, informants in Focused Group Discussion noted that object play material as a pedagogical approaching in actual teaching brings about motivation amongst learners by giving different examples. During the discussion an informant in FGD2 with vigour noted that:

“Object play materials pedagogic approach allows use of various activities and materials which helps in addressing various needs and interests of many learners. “Natumia tu vitu mingi venye bright colors ndio wavutiwe tukisoma” (I use various and bright colored materials to make them get interested during the lesson.) (FGD2)

Another informant agreed that when children are given room to participate in both indoor and outdoor activities, they find learning funny. The informant substantiated by saying:

“Some of my children are not active in class but when we go out for physical education you find them very active and enjoy every bit of it. They compete in racing with tires, running or kicking the ball as others cheer them up. During the lesson when I use songs accompanied with body movements, I realize the whole class gets excited and actively participate in learning.” (FGD3)

The theme motivation also arose classroom observation. In participant OB3's classroom, a science lesson on domestic animals was introduced by asking the learners to imitate the various sounds produced by domestic animals. Children were happy and excited to do the same in turns.

During a classroom observation, in participant OB7's lesson, mathematics activity was introduced with a poem on numbers and all learners were up reciting the poem about numbers accompanying it with gestures.

From the sentiments above, one can conclude that object play material integrated approach was very effective in teaching and learning as it motivated learners. Varying of activities and having a variety of object materials caters for learners varied need and allows manipulation enhancing learning through senses. This makes learning real and enjoyable. Kabiru and Njenga 2007, admitted that play enhances the child's world and promotes holistic development. Also the Ministry of Education (2010) echoes the same sentiment that children will learn but when they are motivated and given opportunities to manipulate concrete objects as this makes the topic meaningful and relevant.

Retention of learnt knowledge and skills

Retention in this case means the ability of the learners to remember what has been learnt through use of object play material as a pedagogical approach. The findings unveiled that: children who have undergone pre-primary school with the use of object play materials as an institutional approach recall the learnt concept with ease.

One of the informants gave an instruction to confirm that integrated teaching enhanced memory as expressed in the next representative statement:

"Trained teachers in most cases use object play material pedagogical approach. When I was teaching mathematics standard eight last time I asked a pupil to draw a triangle but the pupil could not draw it correctly. I called a pre-primary school child in pre-primary two who was playing outside and asked the boy to draw a triangle and he drew it well. I was completely amazed and as for me, that was enough prove that it promotes effective learning and improves memory since learners can remember the concepts and skill learnt. Concerning using of the approach I can say that pre- primary school teachers use both single subject and object play materials pedagogical approach equally since some are not trained pre-primary school teachers." (INT9)

During Focused Group Discussion participants explicitly said that learners seemed to remember more concepts from a lesson when using object play materials integrated approach because learnt concepts are repeated across content activity areas. By using songs, rhymes and poems learners' ability to recall learnt concepts is greatly improved. Informants had the following to share:

"Through use of object play materials as a pedagogical approach in teaching I am able to address various needs of learners because themes are arranged from known to unknown and given that learning cuts across activity areas the knowledge and skill are repeated. Through repetition children easily understand and master whatever they are learning." (FGD8)

Another informant agreed by saying that:

"I support my colleague because with object play materials teaching approach I can reach learners with different abilities and interests in class. Object play materials allows me to reach children in different ways in class through songs, rhymes and poems. When I use different methods they will remember what we have learnt through objects. For example they easily recall days of the week through songs (FGD3).

During classroom observation OB2' class, by just hinting a song, the children easily named seven days of the week as they sang and clapped. Participant OB7 asked a few learners to identify alphabetical letters in their order and the volunteers were able to do so with a lot of easy. The teachers also asked what they had learnt the previous day, a group of learners exploded with a poem about family. This response shows that the children easily recall the learnt concepts with a lot of easy.

One can infer that object play materials teaching promotes effective learning as learner's ability to recall learnt concepts is enhanced. Use of hand of activities, learning through senses by manipulating objects, and varying teaching learning activities aids memory. The findings tally with an early childhood philosopher Pestalozzi (1746 - 1827) who believed that children learn best through activity, hands on activity and by interacting with physical and human environment through their senses. Also, Sacks (2008) supported the idea by noting that using variety of teaching and varying teaching methods has transformative abilities to change and trigger mental abilities and that it aids memory.

Lack of Consistency in Using Object Play materials integrated approach

Consistency here refers to the harmony and uniformity. Lack of consistency means use of object play materials as a pedagogical approach teaching is carried out in an irregular manner hence lack of uniformity in its use. Although informants agreed to the fact that object play materials integrated teaching approach motivates and enhances memory of learners, some argued that there is inconsistency. Inconsistency manifested in teachers teaching both lower and pre-primary school compelling them to use two different approaches compromising their consistency in using object play materials as a pedagogical approach in teaching. One informant had the following to share:

"I have two teachers one is trained and the other has just joined college. Both teachers are not employed by the government but are paid by the parents. The trained teacher finds it difficult to use object play material as a pedagogical approach because he is handling both pre-primary school and lower classes. In primary the teacher is expected to use single subject approach unlike pre- primary school. One teacher planning differently both object play material and single approach is quite challenging. Consequently, the teacher uses single subject in teaching even the preschoolers." (INT1)

Another respondent concurred that there is lack of consistency in teaching object play materials in the aspect of teacher preparation and made the following observation,

“Use of object play materials as a pedagogic approach promotes effective learning because it covers many areas of growth and development in children. Teachers do not use it regularly even planning is not regular. My opinion is that object play materials approach should be used in teaching lower classes too for it to impact well in learners because I feel two years is a very short period to judge its effectiveness.” (INT8)

During Focused Group Discussion, lack of consistency manifested in having a section of pre-primary school teachers who are not trained and therefore cannot teach using object play materials as a pedagogical approach. Respondent confessed that:

“I don’t use object play materials as a pedagogical approach in fact I don’t even understand it. Two of us are not trained but only the lead teacher is. So yeye pekee ndiye anaielewa na at a times anaitumia (it is only the lead teacher who understands it and at a times uses it to teach)”, (FGD1).

In classroom observations lack of consistency was evident when some trained pre-primary school teachers did not have current schemes of work and lesson plans. In OB4, the researcher noticed that the lesson plans availed in class were old and enquired from the informant why and the informant disclosed it, it is difficult when one is teaching both pre-primary school and lower primary. At lower primary unlike pre-primary school single subject approach is used. Therefore, one person teaching using two different approaches same time makes it difficult to stick to one and as a result in most cases single subject approach carried the day even in pre-primary school section.

From the above sentiments it is clear that there are gaps existing on how use of object play materials as a pedagogical approach actual teaching is being carried out. The gaps exist on how it is being used due to the untrained teachers, irregular preparation by the pre-primary school teachers and some teachers who teach both pre-primary school and lower classes due to understaffing in primary school increasing the teachers’ work load. Some administrators argued that, use object play material as a pedagogical approach should be used in teaching lower primary classes too to allow it have a strong positive impact on learners citing that two years is too short. This concurs with the TAYARI Baseline Report (2016) in Kenya which revealed that, more often public pre-primary schools are characterized by inadequate learning materials, shortage of trained teachers making teachers use the traditional teacher-centered methodology.

4. CONCLUSION AND RECOMMENDATION

Conclusion:

The study concluded that object play materials play a significant role in supporting literacy development in pre-primary classrooms. When effectively used, these materials enhance learner engagement, foster creativity, and improve foundational literacy skills such as letter recognition, vocabulary, and storytelling. However, effective integration is hindered by challenges such as inadequate training, insufficient materials, and overcrowded classrooms. Teachers who received proper support and used locally available resources demonstrated more innovative and effective pedagogical practices.

Recommendations:

1. Capacity Building: The Ministry of Education and other stakeholders should provide continuous professional development for teachers on the effective use of object play materials in literacy instruction.

2. Resource Support: Schools should be supported with adequate and diverse play materials or be encouraged to innovate using locally available resources.

3. Curriculum Integration: The use of object play materials should be explicitly included in literacy teaching guidelines to ensure consistency in practice.

Further Research: More research is needed on the long-term impact of object play on literacy development and how to address contextual challenges affecting its effective use.

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