



## Play and learning materials in university model preschool: Exploring the availability and utilization

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*Availability, early childhood education, learning materials, play, university preschool, utilization*

### Abstract

This study explored the availability and utilization of play and learning materials in the Haromaya model preschool, Ethiopia. In doing so, a qualitative case study design was employed. Data were generated from five chosen teaching staff of the model preschools purposively traced by the researchers. Interview protocol and observation checklist were utilized as a data-gathering tool. To comprehend the phenomenon, thematic analyses were used. The study's findings were illustrated with 3 major themes and 8 sub-themes. There are average materials available for play and education in the model preschool. Teachers utilize play and learning materials to introduce new concepts, reinforce learning, promote socio-emotional development, and promote creativity. Several factors determine the usage of play materials for learning: economy, perception, and attitude of teachers, and educational qualification of teacher topping the list. In conclusion, play and learning materials are essential for preschool children's development. They help children learn in an engaging way, promote creativity and problem-solving skills, and provide opportunities for children to explore, learn, and grow. However, the level of play and learning materials is not as expected. This can create a disparity in the quality of education that children receive. To address this issue, increased funding for preschool programs, provision of training for preschool teachers on using play and learning materials effectively, and awareness creation about the importance of play and learning materials should be in place.

## **A. INTRODUCTION**

Preschool education is a crucial investment in kids' future. All children can achieve their full potential and contribute to a better future if they have access to high-quality preschool programs. The teaching of children in preschool occurs before they begin primary school, where attendance is required. It can be given in various settings, including center-based programs, home-based programs, and family child care, and is commonly delivered to kids between the ages of 3 and 5 (Morrow & Gambrell, 2004).

Play and educational resources are vital to preschool education, a crucial stage in a child's development (Adams, 2006). They allow kids to learn new skills, explore their surroundings, and express creativity. However, only some have equal access to play and learning tools. Children lack access to the tools they need to learn and develop in many regions of the world (Sakellariou & Banou, 2022).

There are many reasons why preschool education is crucial. It first offers kids a nurturing and secure atmosphere. Second, it aids in developing social and emotional competencies that are crucial for success in academics and daily life. Thirdly, it aids in developing kids' early literacy and numeracy abilities, which are crucial for academic achievement. Fourthly, it aids in the formation of lifelong healthy behaviors in kids (The Australian Children's Education and Care Quality Authority (ACECQA), 2022).

Preschool education can have a positive impact on children's development, according to a growing body of research (Rehan, 2022). Preschool education is an integral part of a child's early years, and studies have shown that it significantly influences student learning outcomes (Gardiner, 2020). According to research, children who attend high-quality preschool programs have more vigorous cognitive, linguistic, and social-emotional development than those who do not attend preschool. These advantages continue beyond preschool, with long-term effects on academic success, college attendance, and employment. For instance, research has also shown that pre-schoolers are healthier, more likely to succeed in school, and have superior social and emotional abilities than their non-preschoolers.

Play and educational resources play significant roles in educating this age group in preparing preschoolers. Kids learn best by doing and watching. Learning Resources also function as teaching and learning aids, but more effectively. Utilizing play and kid-sized learning tools and equipment is crucial for delivering this high-quality pre-primary education. Children learn, develop, explore, experiment, communicate, socialize, and solve problems through play (Adams, 2006).

Children can learn and develop their knowledge and abilities through play as they engage with their surroundings, other people, and themselves. Play and educational resources serve as vehicles for conveying ideas; therefore, from the standpoint of teaching and learning, they provide content to the students to achieve effective instruction.

The play has been glorified in early childhood education for over a century (Kernal, 2007). The idea of a natural, active, play-oriented child has been firmly positioned at the center of the early childhood curriculum, which was inspired by the writings of early education pioneers like Maria Montessori (1870–1952), Rachel (1859–1917), Margaret Mc Millan, and Friedrich Froebel (1782–1852).

Today, many early childhood settings still consider it a given that children learn via play

(Kirova & Hennig, 2013). While play can be seen as a child's natural learning process, it can also be neglected in favor of work or exploited as a reward for effort (Anning & Edwards, 2006). Play is a crucial tool for assisting children's learning. Children are prepared to be well adjusted by early exposure to and use of play and learning resources. According to Koech (2017), their students were more stimulated whenever they used some of the learning resources in their lessons since the materials improved their attentiveness.

Pre-primary school centers in Kenya use learning resources sparingly, according to studies on pre-primary school performance (Ngure et al., 2014). In Tanzania, Tarimo (2013) conducted research. The results showed that most preschools need more play equipment to engage kids in worthwhile play activities, and they also demonstrated that there could be only practical instruction with sufficient resources. Most preschools did not have many indoor play areas. Children's ability to freely play the roles of various persons, such as shopkeeper-buyer roles, doctor-patient roles, farmer-gardener roles, and many other roles, may unquestionably be delayed by the lack of indoor play area facilities. Learning materials are essential for children's learning.

Using learning resources requires using many human senses simultaneously during the learning process (Mokua, 2012). As a result, using learning materials such as desks, chairs, textbooks, and aid is extremely important for preschoolers and teachers. The main goal of achieving Education for All (EFA) and the Sustainable Development Goals (SDGs) is to provide every child, regardless of their background, with quality education and training. Children can access quality education using locally improvised materials from the local environment and other learning materials while playing. These can encourage kids to attend class and lower the absenteeism rate.

Learning materials are intermediate or mediating resources used in educating students to help clarify learning objectives and facilitate instruction (Knowles, 1996). While the use of play and learning materials clarifies issues of learning interest to adults, a thorough explanation of a subject may only sometimes result in adults' better comprehension of that subject. It suggests that in order to achieve the purpose of early childhood education, play and learning resources should be accessible.

In preschools, the availability and use of play and learning resources is a crucial problem impacting the caliber of education kids receive. Children can explore their interests, foster creativity, and acquire new skills through play and educational materials. Children are more likely to actively learn and advance in their development when they have access to a wide selection of high-quality play and learning materials. However, many preschools lack proper access to play and educational resources. Numerous issues, such as poverty, a lack of finance, and discrimination, are to blame (Mokua, 2012). As a result, many kids need help to take advantage of preschool education's full potential.

According to Ethiopia's Ministry of Education's (2009) standard, preschool learning materials should foster children's creativity and other developmental abilities. Toys, flashcards, a ball, a puzzle, actual objects, charts, beads, blocks, and other teacher-made or manufactured things should all be provided and used in the preschool. Research on the availability and use of these items in Ethiopian preschools needs to be completed. This qualitative study was conducted to understand the availability and use of play and learning materials in Haromaya

### University Model Preschool.

Several studies have been conducted in pre-primary school programs to investigate the availability and use of play and learning materials in preschools in Africa. Mokua (2012) studied the impact of teaching and learning materials on preschool students' performance in Kenya. He discovered that educational materials have a significant impact on children's performance. In this study, the usage of instructional resources for teacher preparation was the main focus. However, this study focused on using instructional media to train on ECCE teacher training. It needed to comprehensively understand how preschool instructors use them in educating preschool children.

In addition, the availability of printed and non-printed instructional media in kindergarten fosters pupils' interest in reading (Dewi et al., 2017). Its main objective was to view the collections of ECCE's printed and non-printed educational resources. The survey, however, should have mentioned how kindergarten teachers used the given teaching resources and the importance of letting kids play with objects while they learn.

There are examples of lists of Ethiopia-related literature to investigate phenomena in a few preschools in the woredas such as Megersa & Tarekegne (2019) researched the implementation of preschool curricula in Ethiopia. This investigation made it evident that teachers created few learning resources using locally accessible raw materials. There may be a problem with play and learning resources in preschools. They also demonstrate that teachers still need to completely utilize the available educational resources even though they used closed-ended questions as a data collection tool. It shows that learning resources are essential for children's proper learning depending on their development. The absence of necessary curricular materials may force teachers to rely on a personal whim to create objectives, select contents and techniques, and evaluate procedures. In his study on the practice and difficulties of preschool education in Addis Abeba's Nifasilk Lafto sub-city noted the usage of play and learning resources (Seifu, 2014).

Prior research on the subject, however, tended to focus primarily on a minor issue and gave little attention to the fact that play and learning materials significantly influence the effectiveness of children's learning. The availability and use of play and learning materials in preschool were not evaluated in their studies. In order to effectively demonstrate the trend, this qualitative case study was carried out to fill gaps in the headline of the investigation. Therefore, the study was guided by the following research questions:

1. What play and learning materials are available in Haromaya University model preschool?
2. How do teachers utilize play and learning materials in their teaching practice at Haromaya University model preschool?
3. What challenges exist related to the availability and utilization of play and learning materials at Haromaya University model preschool?

## **B. METHOD**

The researcher employed a Qualitative case study design to debrief the phenomenon: exploring the availability and utilization of play and learning materials in Haromaya University model preschool. This design deepens and broadens our comprehension of how things in our social world got to be the way they are (Astalin, 2013). In order to respond to the research questions, qualitative data collection techniques appropriate for the case study design were used,

including interviews and observation. These techniques allow researchers to triangulate and combine the benefits of various methodologies to make up for the weaknesses of some of the data collection techniques.

Samples were selected by using the non-probability purposive sampling technique. The participants have rich information and are highly knowledgeable about the issue. Also, the researcher relied on his tacit knowledge, sound judgment, and awareness of the subject matter. After interviewing five teachers, the study's sample size was decided when information saturation was reached. The demographic characteristics of study participants shows in table 1:

Table 1. Demographic characteristics of the interviewees

S. N	Pseudo name	Sex	Working experience with children	Position
1	T1	Female	4 years	Main teacher
2	T2	Female	9 years	Care giver
3	T3	Female	3 years	Care giver
4	T4	Female	1 years	Main teacher
5	T5	Female	9 months	Assistant teacher

As depicted in Table 1, 100 % of interviewees were female. As portrayed in the above table, they have better knowledge and understanding of the issue, and they are technical experts that the researcher purposively points out by basing their significance on the phenomenon under study.

In addition, the researcher carried out observations by basing the observation checklist. Thus, the data collected from the participants complied with several ethical principles, especially the research protection of informants' dignity, anonymity, and storage of the data in safe locations to prevent access. In order to ensure the accuracy of the data collection and analysis, the researchers also followed several steps, including carefully choosing the study participants based on the specified criteria, building rapport with the interview subjects, and asking experts for their input on the prepared interview guide.

The data were analyzed and interpreted using many procedures, including transcribing, familiarization, coding, categorization, and organization (Archer, 2018). Before beginning data analysis, the researcher became acquainted with the information gathered through interviews and observation data. Based on the study's research question, which clarified research topics, these related categories were classified into main themes (Creswell, 2013). Finally, a discussion aligned with other relevant findings validated the study's conclusions.

## C. RESULT AND DISCUSSION

The study's finding was illustrated with 3 major themes and 8 subthemes. The major themes are the availability of play and learning materials, teachers' utilization of play and learning materials, and challenges in the utilization of learning materials. The availability of play and learning materials was portrayed with two sub-themes: available materials for play and for education. Teachers' utilization of play and learning materials was portrayed with four sub-themes: introduce new concepts, reinforce learning, promote socioeconomic development, and

promote creativity. The last significant theme, challenges of using learning materials, were portrayed with three subthemes: economy, perception, and attitude of teachers, and educational qualification.

## 1. Availability of play and learning materials

The first objective of the study is to assess the availability of playing and educational materials in the study area, and the obtained data were summarized with two sub-themes as follows:

### *a. Available materials for play*

The available materials for play in Haromaya University model preschool are shown in table 2;

Table 2. Available materials for play

S. N	Materials for dramatic play	Available	Not Available
1	Dress-up clothes		X
2	Props for different roles		X
3	Household items	X	
4	Toys that represent animals, people, and objects from different cultures	X	
<b>Materials for block play</b>			
1	Large and small blocks		X
2	Cars, trucks, and other vehicles		X
3	People figures	X	
4	Animals		X
<b>Materials for water play</b>			
1	Sand	X	
2	Water	X	
3	Toy for playing with sand and water		X

We can see from Table 2 that the availability of the materials to promote three forms of dramatic play, block, and water play in the preschool, as mentioned earlier, was average. Materials like dress-up clothes and pops for the different roles (doctor, firefighter, and the like.) were not available. On the contrary, household items and toys representing animals, people, and objects from different cultures were available. 50 % of the material to promote dramatic play was available.

Large and small blocks and cars, trucks, and other vehicles were not available, but there is an effort to place people's figures in promoting block play, and materials used to promote block play are in question. Children in the school can find sand and water, and no toy helps them to play with sand and water in the study area.

In addition to the observation made, an interview with T1 also proves that play can be a great way to introduce new concepts to students in a fun and engaging way.

*“For example, a teacher might use blocks to help students learn about shapes or use dramatic play to help students learn about different cultures. But in our school we do have few materials which are available to promote dramatic, block and water play with our students.”*

#### **b. Available materials for education**

Available materials for education are shown in table 3;

Table 3: Available materials for education

S.N	Materials used for education	Available	Not Available
1	Books	X	
2	Puzzles and Games	X	
3	Outdoor toys	X	
4	Colour	X	
5	Markers	X	
6	Paint		X
7	Paper	X	
8	Scissors	X	
9	Glue	X	

As we see from Table 3, almost all educational materials are available in the model preschool except paint, and the school is well equipped with the remaining educational materials like books, puzzles and games, outdoor toys, colour, markers, paper, scissor, and glue.

In support of the observation finding interview with T2 also proves that:

*“We have enough educational materials. When we see our country's capacity, we get to purchase different educational materials from the university based on our plan, and parents of children will avail few in-need materials for their kids at the begging of every school year.”*

Outdoor play's contribution into children's learning and development and promote natural materials playing (Sakellariou & Banou, 2020)

## **2. Teacher's utilization play and learning materials**

The study's second objective was to check teachers' use of play and learning materials in their teaching practice at Haromaya University Model Preschool. The answers obtained from the interview were summarized with four sub-themes: Introduce new concepts, reinforce learning, promote social and emotional development, and promote creativity.

#### **a. Introduce new concepts.**

Play can be a great way to introduce new concepts to students in a fun and engaging way. As to the interview with T4:

*I frequently try to use many materials to introduce new concepts. For example, I use blocks to help students learn about shapes or use dramatic play to help students learn about different cultures.*

#### **b. Reinforce learning**

Once students have learned a new concept, play can be a great way to help them reinforce their learning. Interview with T2 proves that:

*Most of the time, I use puzzles to help students practice their math skills or use art materials to help them express their understanding of a new concept and that way, they can comprehend a lot of concepts via learning materials.*

**c. Promote social-emotional development.**

Play is also crucial for promoting social-emotional development. The interview with T1 goes in line with the beginning remark:

*Most of the time, I want to deliver my lessons through play; students learn how to interact with others, solve problems, and manage their emotions while playing with their peers. In fact, there are different attitudes towards its deployment among teachers and caregivers in our school compounds.*

**d. Promote creativity**

Play is also essential for promoting creativity. Interviews with T3 and T4 were summarized as follows respectively:

*Nowadays, the dynamism blows out of my mind; children are capable of lots of odds. Through play, students explore their imaginations, develop new ideas, and challenge the existing routes.*

*Children in our preschools are equipped with much creativity. For this, the university's existence in closure place will aid us with a lot of resources to deploy, and materials availability also boost students' imagination and creativity in our school.*

**3. Challenges on the utilization of learning materials**

The third research objective was to trace challenges exist related to the availability and utilization of play and learning materials at Haromaya University Model Preschool, and the answer obtained from the interview was summarized by using three sub-themes: Economy, Attitude, and perception of teachers and educational qualification of teachers were the identified challenges.

**a. Economy**

The economy is among the significant factors affecting the use of play material in teaching kids in the study area. To demonstrate this point, let us look at an interview response with T5:

*Play and learning materials are expensive these days; dynamic, we have to be up-to-date now and then, but because of economic problems, we are not making it, and this is a barrier for preschools already struggling to make ends meet.*

**b. Perception and attitude of teachers**

Psychological variables are among the significant factors that determine the utilization of play materials for teaching. To show that this is true, consider an interview with T2:

*Even if our school has access to play and learning materials, they may not be utilized effectively. This is because of our teacher's perception and attitude. A teacher who believes that play is vital for learning may provide her students with various play materials that support different types of learning, such as blocks, puzzles, and art supplies. She may also create a play-based learning environment that encourages children to explore and experiment, and on the contrary, a teacher who believes that play*



*is a waste of time may not provide her students with any play materials or may only provide them with a limited number of materials. She may also discourage children from playing or interrupt their play to direct them to more "academic" activities.*

### **c. Educational qualification of teachers**

Teacher's educational training depth hinders the utilization of play materials for teaching. Concretely, the interview with T1 showed that:

*Teachers with a better educational background and are young are mostly good at managing their learning with the help of educational materials, and the reverse is true with those with low academic rank and higher age.*

The result found that there are average playing materials, and almost all educational material is available in the model preschool. This study finding is inconsistent with a finding obtained by Lucy et al. (2022). Teaching and learning materials (TLMs) were not readily available, so the children could not interact with them. The study further revealed that the unavailable nature of the TLMs hindered children's accessibility and active interaction with them. The findings further revealed that interaction could not feature prominently in the provision of the ECE due to the unavailability and inaccessibility of TLMs. The difference between the two studies may arise because the model school I chose was supported and financed by a known research university in Ethiopia named Haromaya One.

This study reveals that teachers utilize play and learning materials for different reasons: to introduce new concepts, reinforce learning, promote social and emotional development, and promote creativity. This finding goes consistently with the dewey idea. Dewey notes that sincere knowledge and productive understanding are achieved by manipulating appropriate TLMs (Dewey, 1966).

The study's finding underpinned that challenges related to the availability and utilization of play and learning materials exist because the economy, attitude, perception of teachers, and educational qualification were the identified challenges. The finding goes head to head with Lucy et al. (2022) finding that economy, perception, and teacher attitude were among the significant determinants determining the availability and utilization of play and learning materials in our teaching and learning schemes in ECCE programs.

## **D. CONCLUSION**

In conclusion, play and learning materials are essential to early childhood education. They can help children learn in a fun and engaging way, and they can promote social-emotional development, creativity, and problem-solving skills. However, several challenges to effectively using play and learning materials include cost, teacher attitude and perception, and educational qualification. It is crucial to address these challenges to ensure that all children have access to the benefits of play and learning materials. By doing so, we can ensure that all children have the opportunity to reach their full potential.

Some recommendations given to the preschool are; (1) Provide financial support to the preschool to purchase play and learning materials. (2) Train teachers on the importance of play and how to use play materials effectively. (3) Offer professional development opportunities for teachers to learn about the latest research on play and learning. (4) Create partnerships between

preschools and local businesses. It helps secure donations of play and learning materials and volunteers to help implement play-based learning programs. (4) Encourage parents to participate in their children's early learning. By taking these steps, we can ensure that all children can reach their full potential through play.

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