

EXPLORING PARENTAL SUPPORT FOR CHILDREN'S EARLY LITERACY AND NUMERACY THROUGH PLAY AT HOME

By

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A thesis submitted to BRAC Institute of Educational Development in partial fulfillment of
the requirements for the degree of
Master of Science in Early Childhood Development

BRAC Institute of Educational Development
BRAC University
August 2026

Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing a degree at BRAC University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

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Ethics Statement

Title of Thesis Topic: “Exploring parental support for children’s early literacy and numeracy through play at home.”

Student name: Dilruba Hossain

1. Source of population:

Parents of 2 to 6 years old children living in three areas in Dhaka city.

2. Does the study involve (yes or no)

- a) Physical risk to the subjects (no)
- b) Social risk (no)
- c) Psychological risk to subjects (no)
- d) discomfort to subjects (no)
- e) Invasion of privacy (no)

3. Will subjects be clearly informed about (yes or no)

- a) Nature and purpose of the study (yes)
- b) Procedures to be followed (yes)
- c) Physical risk (N/A)
- d) Sensitive questions (N/A)
- e) Benefits to be derived (yes)
- f) Right to refuse to participate or to withdraw from the study (yes)
- g) Confidential handling of data (yes)
- h) Compensation and/or treatment where there are risks or privacy is involved (N/A)

4. Will Signed verbal consent for be required (yes or no)

- a) from study participants (yes)
- b) from parents or guardian (yes)
- c) Will precautions be taken to protect anonymity of subjects? (yes)

5. Check documents being submitted herewith to Committee:

- a) Proposal (yes)
- b) Consent Form (yes)
- c) Questionnaire or interview schedule (yes)

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Abstract

Many children in Bangladesh begin primary school without adequate early reading and counting skills, which can hinder their future educational progress. This qualitative study explored how parents support their children's early literacy and numeracy through play at home in Dhaka. It examined parents' views on play-based learning, the types of play activities they use to support learning, and the factors influencing their involvement. Data was gathered through in-depth interviews with parents of young children and was analyzed thematically. The findings showed that parents viewed play as more than just fun; it is a natural, enjoyable, and stress-free way to learn. They engaged in various literacy activities, such as rhymes, flashcards, alphabet toys, drawing, word games, spelling, and guessing games. Numeracy was encouraged through daily household routines such as cooking, counting fruits and vegetables, and using items like biscuits, eggs, blocks, and balls, as well as physical games. Children responded positively to these play-based methods, showing interest, curiosity, happiness, and active participation. However, parents faced challenges, including limited time, household chores, lack of appropriate play spaces, and limited guidance. The study highlights the need for affordable parent training, support that includes fathers, and culturally relevant home learning strategies.

Keywords: Play-based learning; early literacy; early numeracy; parental support; home learning environment; early childhood development.

Dedication

At first, I am truly grateful to Allah because without Allah it is impossible to achieve.

I dedicate the thesis to my beloved parents, especially my husband, Jahirul Islam (PhD in Public Health) and my brother for their endless love, support both mentally and financially, sacrifices and motivation. They are my great source of inspiration during this wonderful journey.

Also, my heartfelt gratitude goes to my teachers, friends and family members who are my well-wishers and helped me in every way possible.

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First and foremost, I am very grateful to Allah, the Most Merciful, for countless blessings and mercy to give this opportunity and ability to pursue my study according to my interest, Alhamdulillah. My family, husband for their constant contribution. Without them it is not possible to achieve this.

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List of Acronyms

ECD	Early Childhood Development
HLE	Home Learning Environment
HLE-L	Home Literacy Environment
HNE	Home Numeracy Environment
IDI	In-Depth Interview
LMIC	Low- and Middle-Income Country
MICS	Multiple Indicator Cluster Surveys
NGOs	Non-Governmental Organizations
PBL	Play-Based Learning
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund

Glossary

Thesis: An extended research paper that is part of the final exam process for a graduate degree. The document may also be classified as a project or collection of extended essays.

CHAPTER I: INTRODUCTION & BACKGROUND

Introduction

For cognitive, linguistic, and socioemotional development, the early years are crucial. According to neuroscientific research, the brain develops quickly during the first five years of life, setting the stage for subsequent learning, behavior, and health outcomes (Davis-Kean et al., 2022). Early deficiencies in these fundamental abilities contribute to long-term educational inequality on a global scale (García & Weiss, 2017).

The World Bank predicts that in low- and middle-income countries (LMICs) many children are unable to achieve minimum levels of ability in reading and mathematics despite completing their primary school (United Nations Educational, 2023). Also, the United Nations Children's Fund (UNICEF) indicates that learning problems, for example, not being able to read and understand simple text, still exist in many developing nations (World Bank Group, 2021). These learning problems usually begin before school and are linked to parents' knowledge and a lack of involvement in home learning settings.

In this context, the home learning environment plays a vital role in creating early childhood development. The concept of the home learning environment (HLE) focuses on the informal learning experiences between parents and children, which contribute to the developing child's cognitive growth by singing together, playing counting games, reading stories, and reading aloud to their children (Niklas & Schneider, 2013; Sénéchal & LeFevre, 2002; Sun & Wang, 2022).

One effective approach for promoting early learning at home is Play-based learning (PBL). International organizations such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and UNICEF endorse PBL as a good approach to learning for young children, which facilitates and supports their growth through natural development, on an educational level and developmental level (Bardon, 2006). Young children commonly learn language, mathematics, symbolic thought, and problem-solving through play. In addition to these forms of learning, children will develop self-regulation, creativity, and motivation by using play-based learning techniques (Hirsh-Pasek, 2009; Zosh et al., 2017).

Developmental psychological science has acknowledged the significance of play in learning (Lillard, 2015). Jerome Bruner highlighted that children could explore concepts and answers and make sense of their encounters through play. Children are able to follow what they enjoy, convey their feelings, and proactively connect to what is around them through play, so play is usually child-led (Smidt, 2010). Play has been referred to as "a child's work" for such reasons.

As children's primary teachers, parents can play a key role in supporting this type of learning. Basic interactions that foster key learning experiences and enhance the sense of connection between parents and children. Parents need to make time to play with their children from the beginning, because when you are smiling, and the baby is smiling back, that means you are engaging in play. Play helps the development by stimulating the brain through the formation of connections between nerve cells. This process helps develop fine motor skills (such as grabbing a crayon) and gross motor skills (such as jumping or running). There are many benefits of playing with simple blocks, such as gaining knowledge and understanding of shape, size, and color, as well

as counting. Through play, parents can learn more about their children. Parental involvement in a child's play opens doors to children's well-being by talking fluently early, interacting without fear, learning new things easily, and acting smarter by solving problems or puzzles. They build strong self-confidence with the proper assistance from their parents (Anderson-McNamee & Bailey, 2010). Moreover, children love dancing and music. By utilizing music, for example, counting or learning the alphabet by action rhymes can positively impact their learning process through fun.

Research indicates that organized, game-based numeracy activities that involve the home and school lead to significant growth, especially for children who have less starting capability (Gianan, 2025). Parents' planned utilization of play as a learning method differs significantly, and some are unclear about how to promote learning through play as compared to organized teaching (Joy et al., 2013). To fill that gap, this study analyzes what parents think, understand, and practice at home to support children in developing early literacy and the ability to count in everyday life.

Statement of the Problem

Children's ability to read and perform basic math functions successfully is mainly determined by the quality of their home environment during the first few years of life (Davis-Kean et al., 2022). The influence of the home environment is greatest in these initial stages because children spend most of their time with family members (Han et al., 2023). In addition to providing a nurturing atmosphere, play-based approaches to teaching young children, such as storytelling, counting games, role-playing, and engaging in everyday activities interactively, have been shown to be effective and developmentally appropriate for promoting early learning (Zosh et al., 2017). The role of play in children's literacy (reading and writing) development at home, through the

eyes of their parents, remains unclear in many areas, including Bangladesh. While it is known that parents engage in a wide variety of play with their children, it remains unclear whether they consciously attempt to link some of these activities to the development of literacy and numeracy skills. Also, it is not known how parents understand the educational value of play, what kinds of play they use, and how often they use play to develop their children's literacy skills.

How parents' knowledge variables affect access and use of educational play at home has also become one of the most pressing issues (Ahmed & Sadik, 2025). For example, it has yet to be determined whether children's literacy and numeracy skills are associated with differences in parents' values, beliefs, and behaviors by comparing these differences. Given the evidence above, parents may have difficulty incorporating playful activities into their everyday routines. For example, parents may lack sufficient time, equipment, knowledge of age-specific materials/strategies, or cultural beliefs that favor formal learning over playful activities; yet they may have many positive attributes and skills that researchers do not report.

Home learning through play is essential; however, the lack of qualitative research regarding how parents view using play to develop early literacy and math skills, types of activities completed with their children, the frequency of these activities, issues encountered, and desired assistance from outside sources creates a gap in knowledge (Sikder & Banu, 2018). Without such specific data, educational policies and early childhood programs cannot be aligned effectively with the realities of families; thus, investigating parents' understanding and implementation of play-based literacy and math skill development at home, exploring the relationship between the types of play engaged with children and their pre-reading and counting skills while considering the

influences of family factors, as well as identifying barriers to parental engagement and ways to assist parents, is essential. This research will help develop culturally sensitive, evidence-based methods for facilitating children's literacy and math skill development through play at home in the context of Bangladesh.

Purpose of the study

The purpose of this study is to explore parental support for children's early literacy and numeracy through play at home. The second purpose of the research is to examine how parents view play-based learning as an approach to supporting children's early literacy and numeracy achievement at home. And the third purpose is to understand the different types of play-based tasks that parents use at home to support their children's literacy and numeracy development.

Significance of the study

In Bangladesh, many children enter primary school without adequate reading or counting skills. The inability to read and count well upon entering primary school may lead to difficulties learning later and to differences in education among children. Parental involvement in the development of young children as learners is essential, as parents spend the majority of their time with their children and provide many of the experiences that shape children's learning. It is therefore important to know how parents use play-based activities to help their children learn to read and write, as this will help improve early learning outcomes at the most basic level. The study is warranted given the scarcity of context-specific research in Bangladesh that investigates parental awareness and daily practices regarding play as a pedagogical strategy. Although global evidence underscores the advantages of play-based learning,

there is limited understanding regarding how Bangladeshi parents perceive play, the frequency of their involvement in educational play, the types of activities they employ, and the challenges they encounter. Without such evidence, early childhood policies and interventions may neglect culturally ingrained practices and inadequately address parents' genuine needs.

The findings of this study will contribute to the creation of affordable programs for parents that provide ample cultural connection and support, as well as to community outreach efforts or policies that support early numeracy through simple, everyday play experiences. Overall, this research supports a community-focused and sustainable approach to improving and supporting the learning and development of all children in Bangladesh.

Objective of this study

The key objective of this study is to explore parental support for the early development of children's literacy and numeracy through play at home.

Research Questions

1. What do parents understand about play?
2. What kinds of play activities do parents use to develop their children's literacy and numeracy skills?
3. What factors influence parents when using play activities for children's literacy and numeracy at home, and what support do the parents feel is essential?

CHAPTER II: LITERATURE REVIEW

Global Context

Why are play-based activities central to early literacy and numeracy?

Play-based learning is a fundamental method for early development. Children practice vocabulary, narrative skills, using symbols, sequencing, and early math reasoning (such as counting, comparing amounts, and recognizing patterns) by doing pretend shopping, telling stories, singing songs, building with blocks, sorting household items, and playing turn-based games (UNICEF, 2018). Recent educational research provides concrete examples of how numeracy and literacy skills can be implemented and fostered in play-based early learning environments.

Even so, the global conversation around what is considered "play-based learning" or even "play and learning together" continues and provides insight into how adults can help facilitate the process of learning through playful experiences without placing formal structure on them (Weisberg et al., 2013). As shown in a systematic literature review of the perceptions of early childhood education practitioners, play is generally perceived as an effective mode for providing early childhood education, but this perception is also met with challenges created by academic pressures and different cultural values regarding education (Parker et al., 2022).

In LMIC, this challenge may be accentuated, as there may be more pressure placed on families to develop and display certain types of academic achievement, which may contribute to parents' belief that play cannot be a means of instruction, making parental perceptions a priority consideration for practitioners (Parker et al., 2022).

Importance of play

Early literacy and numeracy develop prior to formal education and are influenced by children's daily interactions with caregivers, materials, and routines (Davis-Kean et al., 2022). Modern developmental theories assert that learning is socially mediated: children derive meaning through interaction, language, and collaborative activities, while caregivers create opportunities and provide responsive support. In this perspective, the home is not merely a setting but a dynamic learning environment where play, communication, and daily routines enhance children's foundational skills (Han et al., 2023).

Many organizations working with young children around the world view play as not only a way to learn, but also as an inherent right to development (United Nations Children's Fund (UNICEF), 2019). The Learning through Play program, created by UNICEF, promotes the idea that all children grow through their experiences of play, no matter how simple these activities may seem (talking, reading, singing, and exploring). Additionally, UNICEF's recent compilation on early childhood development highlights the need for families living in poverty or in rural settings to have access to good learning environments (Cuartas et al., 2023).

Home Learning Environment: concepts and measurements

A significant body of evidence defines the HLE as a collection of experiences and resources that facilitate early learning, including shared reading, storytelling, songs, conversations, and access to books or educational materials (Han et al., 2023; LeFevre et al., 2009). The HLE idea is similar to the home literacy environment (HLE-L) and the home numeracy environment (HNE). These frameworks separate (i) activities

(what caregivers do with kids), (ii) resources (what is at home), and (iii) beliefs and attitudes (what caregivers value and expect). New evidence suggests that these factors don't always work together. For example, parents may care deeply about early learning but lack sufficient resources, or households may have sufficient resources but not enough time to spend together.

Home-based learning and literacy skills

Research consistently demonstrates a correlation between early language exposure, shared literacy experiences, and children's vocabulary, oral language, print awareness, and emergent reading skills (Sun & Wang, 2022). A longitudinal study conducted in 2024 demonstrated that parents' literacy beliefs and home literacy activities are correlated with children's early literacy development during preschool, highlighting the significance of parental attitudes and regular home practice (Bergman Deitcher et al., 2024).

A large body of research includes both observational correlations and strong evidence from a compilation of home-based interventions supporting action to improve educational performance. The Review of Educational Research conducted a meta-analysis and a narrative review in 2024 of home-based interventions aimed at improving literacy and mathematics. Overall, these studies found that the various intervention types varied in terms of effectiveness based on the design and delivery of the intervention, dosage, and characteristics of the implementation (Cahoon et al., 2024). This is particularly important when developing policies or programs in areas that need low-cost, scalable solutions to improve educational outcomes.

Home-based numeracy environments

Research on the home numeracy environment has rapidly increased, with more and more distinctions between types of numeracy activities (formal vs. informal; parent-led vs. child-led) and outcomes (number sense, counting, arithmetic, and more general mathematical thinking). A widely referenced meta-analysis from 2021 indicated a modest positive correlation between the home math environment and children's mathematical achievement, characterized by significant heterogeneity—implying that the "what" and "how" of home numeracy are consequential (Daucourt et al., 2021).

Studies indicated that parent-led numeracy activities may not consistently correlate with overall early numeracy skills, contingent upon the definitions of activities and their alignment with child interest and developmental suitability (Wei et al., 2025). A 2025 cross-domain study investigated the correlation between parents' beliefs and literacy and mathematics practices both within and across domains, indicating that caregiver's belief systems can influence the scope and stability of home learning experiences (Bosire et al., 2025).

Global South caregiving and early skills

Much of the early research on home learning comes from high-income countries, but there is growing evidence from LMICs, largely from large surveys and evaluation studies. A significant analysis of UNICEF's Multiple Indicator Cluster Surveys (MICS) conducted in 35 countries revealed that the presence of children's books correlates with children being "on track" on a literacy-numeracy index for those aged 36 to 59 months (Jeong et al., 2016; McCoy et al., 2017). This type of work is important because it demonstrates how to use books and other resources as proxies for home-based learning

opportunities on a scale. It also shows how socioeconomic factors affect early learning conditions.

Simultaneously, the literature on parenting interventions in LMICs offers compelling evidence that caregiver-centric stimulation programs can enhance child development and parenting methodologies (Jeong et al., 2021). Research on a larger scale has also advanced. A 2017 study on the global expansion of parenting programs identified key systemic and implementation factors that influence long-term effectiveness and sustainability (Britto et al., 2017).

Bangladesh: what is known and what remains unclear

In Bangladesh, data are being collected increasingly on early childhood development and family environments. This includes studies that use national datasets and tests of parenting programs. Secondary analyses of Bangladesh MICS data reveal that early childhood development (ECD) status has improved over time, and that variables such as children's books, maternal education, household wealth, and participation in early education are correlated with developmental outcomes (Hasan et al., 2023; Sun & Wang, 2022).

Bangladesh has been a leading place for thorough evaluations of parenting programs on the intervention side (Hamadani et al., 2014). Previous evidence indicated that parenting programs could enhance children's cognitive and linguistic development and augment home stimulation practices (Aboud & Yousafzai, 2015). More recent trials and implementation studies have evaluated integrated, group-based parenting interventions delivered through community platforms, demonstrating improvements in stimulation and caregiver practices (Nahar et al., 2012). Despite these advancements,

there is a paucity of qualitative evidence that thoroughly examines parents' daily play practices, their perceptions of play as a form of "learning," and the specific connections between these practices and early literacy and numeracy within the home, especially for very young children.

CHAPTER III: METHODOLOGY

Research approach/design

This research employed a qualitative study to better understand parents' knowledge of how to use play-based activities at home to support their children's acquisition of early literacy and numeracy skills. This qualitative approach is appropriate, given that the intent of this research is to generate an in-depth understanding of each parent's individual perceptions, experiences, and interpretations of utilizing play as a method of teaching and learning.

Research participants

Participants include parents/primary caregivers (mothers) of children aged 2 to 6 years. The age range is appropriate because early childhood is when a child's initial literacy and numeracy competencies are being developed, and children develop these competencies primarily through their experiences in the home setting. Six mothers and four fathers of children for in-depth interviews (IDI) were included in the sample, as they are involved in their children's care (Table 1).

Table 1. Demographic profile of parent participants

Study Tools	Category	Total Participant	Age Range	Education (maximum)	Living Area	Details
IDI	Parents	10	25–45	Masters	Mirpur, Rampura, Dhanmondi	Mothers: 6
						Occupation: Housewife, Service Holder
						Fathers: 4

						Occupation: Business, Private Service Holder
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Research site

The data was collected from middle-class family participants from the Dhanmondi, Mirpur and Rampura areas in Dhaka, Bangladesh (Figure 1). A family with an income between (12,900-21,600) was considered a middle-class family (Fidah & Fuad, 2023).

Sampling/participant selection procedure

This study employed a purposive sampling strategy, which is well-suited to selecting participants with extensive experience and knowledge who can provide in-depth insights during interviews. Since this study aims to explore parental practices and experiences related to play-based learning for early literacy and numeracy, a purposive sampling strategy is appropriate because it enables the intentional selection of participants directly involved in these practices in their daily lives. Based on predefined inclusion criteria, participants were selected to align with the research objective. This study included children aged 2 to 6 years whose parents are actively involved in their daily care and learning activities.

This sampling was preceded by initial identification and recruitment through personal networks and contacts within middle-class families residing in Dhaka, Bangladesh. Selected participants were approached informally, and those who agreed to participate were recruited. A sample of 10 people used, and qualitative exploratory research enabled detailed data collection and analysis of individual experiences.

Data collection methods

Data collection was conducted using In-Depth Interviews (IDI) guidelines through semi-structured interviews (Mwinsa & Dagada, 2025). IDI is an appropriate qualitative data collection method for this study because it helps explore parents' experiences, practices, and opinions regarding play-based learning at home in detail (Kvale & Brinkmann, 2009; Patton, 2022). Semi-structured interviews offer flexibility while keeping a focus on essential research topics, making them suitable for exploring parents' views on play-based learning at home (Bryman, 2016). Interviews were conducted online (for example, via Zoom or phone call), depending on when and how easily the participant can do so. Each interview took about 45–60 minutes. Interviews were conducted in Bengali.

Data analysis process

To improve the In-depth Interview (IDI) guidelines, this study initially conducted a pilot study with one mother and one father before the actual interviews began. This pilot study helped identify whether the research questions were relevant to the study's goal, whether participants clearly understood them, and whether they were appropriate for data collection. Interviews are taken over the phone and audio-recorded with permission. Overall, there are no issues. A qualitative content analysis technique was used to analyze the data. First, all interviews were audio-recorded and then transcribed. The interviews were conducted in Bengali and then transcribed in Bangla and English to ensure clarity. The English translation was needed to ensure clarity when analyzing the interview data.

The interview transcripts were carefully reviewed multiple times to gain a clear understanding of the participants and their responses. Influential statements regarding parents' knowledge, actions, and practices in play-based learning were identified and organized. The responses were then classified based on the main research questions. In the next step, all participants' responses were compared to identify similarities and differences in parents' viewpoints. Fundamental concepts were extracted and analyzed in order to explain how parents nurture early reading and numeracy development through play in the home environment.

Finally, a narrative overview of the findings was supported by selected participant quotes that highlight their perspectives and ideas. This method was helpful for presenting a comprehensive overview of parental actions and difficulties associated with learning through play in early year's development in the context of Bangladesh.

Validity & reliability of the research tools

To make the study more reliable and accurate, this study maintained a clear audit trail by documenting all stages of data collection and analysis, including coding and theme development. To avoid personal bias during interpretation, we kept reflexive notes during the study.

Ethical considerations

The ethical approval from the BRAC IED, BRAC University. All participants were informed in detail about the purpose of this study, their role as participants, that participation is completely voluntary, and that they are free to withdraw from the study at any time without issue. Written and verbal consent were obtained before the interview.

All participants' identity information is kept strictly confidential. No data on their identity was included in the research report. Pseudonyms are used in the results to ensure anonymous reporting. All collected data were utilized only for academic purposes. All recording data are stored securely and are deleted after transcription; only the researcher has access. During the interview, participants were treated with respect and were not asked any uncomfortable questions.

CHAPTER IV: RESULTS & DISCUSSION

Results

The study findings are based on interviews with participants. The participant's responses were synthesized, evaluated through thematic analysis, and arranged in five themes and classified according to research questions and objectives. The explanation of all the five themes are given below.

Theme 1: Children's positive responses to play-based learning

All participants conceptualized play not merely as entertainment, but as a deliberate and developmentally appropriate vehicle for learning. Parents consistently described play as a mechanism that allows children to acquire literacy- and numeracy-related concepts, such as colors, numbers, and letters, without the pressure associated with formal instruction. As one parent explained,

“Learning through play is when children learn something by playing for example-counting” (IDI#1, 17 May, 2026).

The participant also said that children could learn new words and meanings from the environment by interacting with soil and plants there, such as the word “mati,” meaning “soil”. This was highlighted by another parent who said,

“Practical experience helps children to learn quickly through observation while doing the things physically by play” (IDI#5, 22 May, 2026).

Another consistent finding was that participants consider play as a developmentally appropriate method of learning. Rather than separating play from learning, they see it

as a natural, joyful, and meaningful way for children to acquire knowledge. This understanding was mentioned by one parent, who explicitly contrasted play-based learning with book-based pressure, suggesting that formal pedagogical pressure can be counterproductive to a young child's motivation,

“Children think [of] play as a game, if we give them pressure to learn something from [a] book it will impact their mindset” (IDI#2, 18 May, 2026).

Similarly, another parent also focused that,

“Children prefer play first and it is their prime condition so if they taught through play, it will attract them more” (IDI#7, 27 May, 2026).

These responses show that parents consider play a developmentally appropriate method of learning. Rather than separating play from learning, they see it as a natural, joyful, and meaningful way for children to acquire knowledge. Moreover, the benefits of play in their children's responses were also observed. The majority reported that children showed happiness, interest, curiosity, and active participation when learning was conducted through play. Children generally favored playing over traditional formal study. In general, the results indicate that parents perceived play as a positive learning process because it promoted children's motivation, engagement, and emotional comfort. Thus, parents' understanding of play was influenced by both their beliefs and their observations of children's behavior during play-based learning.

Theme 2: Literacy through play-based activities at home

Participants utilized various play methods to foster early literacy skills in children, including letter recognition, vocabulary, spelling, rhymes, drawing, and word

association. Some parents used alphabet toys, flashcards, blocks, age-appropriate educational colorful books, and educational music for children, and guessing games to promote letter and word recognition. The most commonly used resources are toy cars alongside flashcards, alphabet and word toys, music, rhymes, counting activities, Lego, and educational videos. One participant noted that their child learned the English alphabet and rhymes from a YouTube channel, while Bengali alphabet blocks were used to teach Bangla letters. This illustrates how parents combine digital tools and physical play materials to support bilingual literacy development.

Participants also used a color book and drew pictures to teach Bengali letters. For instance, the parent connected the letters to familiar objects, like depicting a bird to learn “pakhi” (bird). This indicates that the visual representation and drawing were used to help children to connect letters with meaningful words and mentioned that,

“I bought A,B,C,D and Ka-Kha letters and hide them in my two hands then see which number and letter came out, after I tell my daughter to “Say, what is the name of this thing?” (IDI#5, 22 May, 2026).

Fathers also used playful strategies to support literacy development, such as hiding letters of the alphabet in their hands and asking the child to identify them, using Lego sets featuring English letters, and encouraging children to spell words or state the first letter of items they requested. Furthermore, played a guessing game by writing letters or numbers on the child's back, prompting them to guess what was written. Besides, motivated the child to think of alternative words beyond those learned in school, such as finding another word starting with “c” after learning “cat”. These suggest that participants engaged in both structured and informal literacy activities, and structured activities included flashcards and alphabet blocks, while spontaneous activities arose

during daily conversations. These combined practices supported children's recognition of letters, words, sounds, spelling, vocabulary, and symbolic meanings.

Theme 3: Numeracy learning through daily household routines

Participants utilized everyday objects and routines to support children's early numeracy. They taught counting, addition, subtraction, shapes, colors, and quantities not only through formal math exercises but also through items such as fruits, vegetables, biscuits, eggs, pillows, fingers, balls, money, board games, blocks, and cooking activities. One parent used cooking as a practical learning activity, and said that:

*“I asked my children to 'bring me two chilies,' so that the children can count.”
And also “put two spoons of sugar,” this helped the children to learn numeracy in a practical way” (IDI#1, 17 May, 2026).*

Similarly, other Participants used cars, fingers, colors, eggs, and pillows for counting. They utilized the resources already available at home, such as food and cooking items. When a parent asked her children to “*bring two eggs from the fridge*” they would count the eggs and bring “exactly two eggs.” Fathers also participated in developing numeracy learning through playful activities such as a game with a doll and a ball, asking how many times the ball touched the doll while saying “*one*”, “*two*”, “*three*”. One parent counted “*one, two, three*” during a play-catching game with “football” and added,

“When we play catch-catch with football, we count how many times the children catch it” (IDI#8, 28 May, 2026).

On the other hand, a parent used a different way for counting, addition, and subtraction, for example, encouraging the child to put “two blocks” and then add “two more blocks” later, and then count altogether. Although one of the parents showed less discussion of numeracy, it followed a routine-based, playful approach, such as writing the numbers 1 and 2 on the back and then asking the children to identify them. Therefore, parents incorporated numeracy into daily routines, rather than relying solely on formal worksheets or school activities. Numeracy skills were successfully integrated into household tasks, movement, objects, and interactions between parents and children. This shows that parents can foster early mathematical development by utilizing affordable, practical, and culturally familiar resources found at home.

Theme 4: Children’s overall responses by play-based learning process

All the parents showed a positive response to learning through play, and all the children expressed happiness and interest, as the learning was not a formal study. Parents explained that their children feel excited and curious and that they participate independently in learning through play. One parent explained that children enjoyed play-based learning because

“He couldn’t understand that we are teaching actually because of learning through play” (IDI#1, 17 May, 2026).

Other parent gave focus on the attention of adults towards children, mentioned,

“If my focus is on him, his focus is also in the game” (IDI#2, 18 May, 2026).

This indicates that when parents play an active role with their children, their engagement is strengthened. Throughout the interview, children were described as

emotionally engaged in learning through play, and it was observed that their children also felt more joyful, happy, and active, and wanted to continue learning by asking, “*Show me another one*”. These responses show positive outcomes and indicate that parents support play-based learning over formal learning. By focusing on this, one parent mentioned that,

“When the learning is made a bit more curious and interesting, the children love it very much” (IDI#9, 19 June, 2026).

However, it was also mentioned by one parent that,

“Children are always in a play mode”, they enjoy learning much in a playful way rather than directly told to study” (IDI#10, 19 June, 2026).

For example, participants shared that children enjoyed learning through play because they did not realize they were being taught. This indicates that play lessened the formal pressure of learning while still promoting educational growth, and participants observed that the child was excited during play-based learning. Children were active and eager to continue learning, as evidenced by their requests for more activities. The child didn’t like writing in a notebook but preferred to write and draw on a large whiteboard.

Theme 5: Barriers to play-based learning at home

Parents reported various challenges in facilitating play-based literacy and numeracy at home. The most common obstacle was a lack of time, as many were busy studying, working, managing household chores, or simply exhausted. Consequently, learning through play often occurred only in the evenings after work or during holidays. Most

participants mentioned that time and tiredness were challenges, but routines helped manage them. Also identified time as a significant problem, citing job and household pressures, children's tantrums, and patience as factors. Some parents also noted restrictions in the physical setting. One parent mentioned the absence of suitable play areas and nearby parks

“There are no arrangements of playing for children in area wise and also no parks either” (IDI#2, 18 May, 2026).

Some parents pointed out limited space at home and a lack of understanding of children's psychology. Therefore, home and neighborhood environments can either support or hinder opportunities for play-based learning. Restrictions in the physical environment were also mentioned, and several felt they needed training, books, workshops, or modules to better support their children's learning through play, noting that the parents wanted to help but were often unsure of the most effective ways to do so.

Parents expressed a strong need for external support to improve their ability to utilize play-based learning at home. The most frequently mentioned support was training for parents. Participants suggested educational training for parents to help them follow guidelines for managing children and emphasized that parenting classes should be accessible and affordable for all, and stated that

“Parenting courses should be available and affordable for every parent” (IDI#3, 18 May, 2026).

They believed parents could benefit from additional learning through training or workshops, and recommended books on child behavior, a parent mentioned

“For parents. I think if there is some book on how to behave with children, it would be best” (IDI#7, 27 May, 2026).

Participants also pointed out the lack of pre-parenting training and suggested tools or modules to boost confidence and highlighted the importance of providing guidance not only to mothers but also to fathers, indicating that parental support programs should involve both parents and recognize fathers as active participants in early childhood learning. Parents also called for family support, workshops, affordable courses, guidance in child psychology, and community play facilities. These findings suggest that low-cost parent education, culturally relevant play materials, family involvement, and community engagement can promote home-based play learning.

Summary of Findings

Overall, the findings indicate that parents see play as a fun, natural, and pressure-free method to promote early learning in children. They engaged in literacy through various play-based activities such as rhymes, flashcards, alphabet toys, blocks, drawing, guessing games, spelling, and word games. Additionally, parents incorporated everyday household routines to support numeracy, including activities like cooking, counting fruits and vegetables, and using biscuits, eggs, blocks, balls, and sports games. Overall, children responded positively to play-based learning, with parents observing that children who learned through play appeared more interested, excited, curious, and engaged. However, factors such as time constraints, work and study commitments, household chores, limited space, lack of play facilities, and insufficient knowledge about suitable strategies for their child’s age affected parents' ability to consistently use play-based learning. Sharing caregiving roles among mothers, fathers, grandparents, siblings, and helpers contributed significantly to the home learning environment,

enriching children's learning experiences. Finally, parents expressed a clear need for guidance, including parenting courses, workshops, books, tools, modules, and training for both mothers and fathers. These findings directly address the study's goal by illustrating how parents support early literacy and numeracy through play at home, detailing the types of activities used, their understanding of play, and the barriers and support needs influencing their participation.

Discussion

This chapter presents the study's major findings in relation to the research objective, research questions, and relevant literature. The main purpose of this study was to investigate parental support for children's early literacy and numeracy development through play at home. The study also explores parents' perceptions of play-based learning and the types of play-based activities they engage in to support children's literacy and numeracy development at home.

The findings suggested that parents viewed play as a fun, natural, and pressure-free way to learn. They used a range of literacy-related activities, including rhymes, flashcards, alphabet toys, blocks, drawing, guessing, spelling activities, and word games. They also promoted numeracy through daily activities such as cooking, counting fruits and vegetables, using biscuits, eggs, blocks, and balls, and playing physical games. Children responded positively to play-based learning, showing interest, happiness, curiosity, and active engagement. However, parents also encountered barriers, including lack of time, work and study commitments, household pressures, limited space, lack of play facilities, and limited guidance on age-appropriate strategies.

The discussion follows the three research questions: parents' understanding of play, the types of play activities for literacy and numeracy, and the factors affecting parental involvement in home play-based learning. The initial research question explored parents' understanding of play. Results indicated that parents do not see play merely as entertainment but as an important learning tool that helps children develop early literacy and numeracy skills naturally and without pressure. Parents described play as an enjoyable and practical way for children to learn about letters, numbers, colors,

vocabulary, objects, and everyday concepts. This finding is significant because it shows that parents instinctively recognize play as an appropriate approach to early development.

This aligns with broader research on play-based learning. Play that is joyful, meaningful, engaging, and socially interactive is most effective. (Zosh et al., 2017). Parents in this study noted that children were more engaged during play and often unaware that they were being taught, thereby reducing formal learning pressures while still supporting the acquisition of literacy and numeracy. The findings also support this statement that play fosters cognitive, language, social-emotional, and self-regulation development. (Yogman et al., 2018). Many parents observed children becoming happy, curious, active, and emotionally involved during play. This suggests that play not only imparts academic skills but also builds emotional readiness for learning.

Parents' views reflect Vygotsky's sociocultural theory. Vygotsky emphasized learning through social interaction with knowledgeable others like parents, siblings, and teachers (Vygotsky & Cole, 1978). Parents described play as a shared activity where adults guided children's attention, posed questions, introduced letters or numbers, and encouraged responses. This indicates that home play can serve as informal scaffolding, helping children do more than they could independently. The results underscore an important point: many parents recognized the limitations of formal, book-based learning. Several noted that playful learning was more effective than direct instruction from books, as children became less interested when pressured to study formally. This supports the idea that early learning should not be solely focused on academic drilling. Instead, play can bridge children's natural interests and early academic concepts. Play-

based pedagogy spans from child-led to guided play, with adults intentionally engaging children to maintain enjoyment and agency (Pyle et al., 2017).

Overall, the findings show that Bangladeshi parents in this study were already aware of the educational value of play, despite lacking formal training in play-based approaches. Their understanding was based on observing children's behavior: children appeared more interested, happy, and eager to learn when play was involved. This answers the first research question and demonstrates that parents see play as both a hands-on and educational experience. The second research question explored the types of play activities parents use to support children's literacy and numeracy skills. Results revealed that parents employ various play-based literacy activities, including rhymes, flashcards, alphabet toys, blocks, colorful books, drawing, word games, guessing games, spelling prompts, and YouTube rhymes. These activities enhance letter recognition, vocabulary, spelling, sound awareness, symbolic understanding, and word-object connections.

This aligns with existing research on the home literacy environment. Parental involvement in literacy activities is linked to children's reading development (Sénéchal & LeFevre, 2002). Similarly, home learning environment strongly correlates with children's early literacy and numeracy skills (Melhuish et al., 2008). Our study builds on this by illustrating how parents in Bangladeshi homes engage in informal, low-cost literacy practices as part of everyday family life. A key finding is that parents participate in both structured and spontaneous literacy activities. Structured activities involve alphabet blocks, flashcards, color books, and letter toys. Spontaneous activities include asking children to identify the first letter of objects, spelling familiar words, drawing objects to teach Bangla letters, and playing guess games. This distinction

highlights that home literacy isn't confined to formal reading or writing lessons. Instead, literacy can also be fostered through conversations, drawing, playing with objects, music, and parent-child interactions.

There is significant use of both Bangla and English learning materials. This indicates that early literacy development in Bangladesh is often multilingual. Parents not only reinforce letter recognition but also facilitate the transition from home language to school language and from media-based exposure to English. However, the influence of digital resources should be interpreted carefully. While YouTube and music introduce children to rhymes and alphabets, learning is most effective when adults actively engage with children around this content rather than leaving digital media as passive entertainment. The findings show that parents combined digital content with physical materials and interaction, aligning more with developmentally supportive practices. Vygotsky's focus on mediated learning aligns with these findings. Parents facilitate their child's learning through interactions such as hiding alphabet letters, encouraging children to guess them, writing on their backs, or linking letters with familiar objects. This approach makes play-based literacy activities dialogic rather than mechanical, fostering learning through social interaction, curiosity, and responsiveness, rather than just memorization.

The results show that parents promote numeracy skills through daily practical activities rather than solely through structured math exercises. They teach concepts like counting, addition, subtraction, shapes, colors, and quantities using common items such as vegetables, fruits, eggs, biscuits, pillows, fingers, balls, blocks, as well as through cooking and sports. This aligns with the second research question, which explored the types of play-based numeracy activities conducted at home. Research on the home

numeracy environment supports this finding. There is a differentiate between formal activities (teaching counting or basic sums) and informal activities (using numbers during games, routines, or everyday interactions) (LeFevre et al., 2009). The activities parents described include both. For example, counting biscuits or blocks is somewhat formal, while counting football catches or measuring ingredients while cooking is more informal, integrated into daily life.

Home numeracy involves parent-child interactions with numerical content, with many studies noting positive links to children's math skills (Mutaf-Yıldız et al., 2020). This study qualitatively confirms these findings, illustrating how parents engage in numerical activities during household routines. Although parents didn't always see these as formal math lessons, their examples show children counting, comparing, adding, subtracting, and identifying quantities. Cooking is especially significant as a numeracy activity. When children are asked to pick two chilies, identify a red tomato, or measure two spoons of sugar, they're learning numbers, quantities, colors, vocabulary, and practical problem-solving simultaneously. This highlights how early childhood learning is interconnected. Children don't learn literacy, numeracy, language, and cognition separately; instead, they acquire these skills through meaningful activities that integrate multiple developmental domains.

Physical play served as a valuable resource for developing numeracy. Parents tracked how many times a child caught a football or hit a doll with a ball. These examples show that movement, rhythm, and repetition can enhance numerical understanding. Studies report that numerical board games can improve children's math skills, especially when number concepts are introduced through playful, repetitive activities (Ramani & Siegler, 2008). While the parents in this study did not always use formal board games,

they employed similar strategies such as repeated counting, turn-taking, and associating numbers with objects. The findings are especially significant for low-cost early childhood support in Bangladesh. Many parents lack access to specialized numeracy materials, but the study demonstrates that common household items can serve as effective mathematical tools. Children can develop early number sense using inexpensive objects like vegetables, eggs, biscuits, balls, and blocks. This indicates that early numeracy programs in Bangladesh should focus on simple routines at home rather than relying solely on formal worksheets or school-style activities.

The findings indicate that parents might benefit from guidance on tailoring numeracy activities to their child's developmental level. While some parents engaged in basic counting activities, fewer incorporated more advanced tasks such as comparing, patterning, measuring, or problem-solving. Parent training programs could help parents transition gradually from simple counting to more complex mathematical language and reasoning, such as asking "Which one has more?" or "How many are left?" or "What happens if we add one more?" or "Which cup is larger?" This approach could enrich the educational quality of everyday play. A key finding was children's positive reaction to play-based learning. Parents observed that children appeared happy, excited, curious, and active, showing greater enthusiasm for continuing to learn. While children showed less interest in traditional book-based learning, they were more engaged when literacy and numeracy concepts were introduced through play, drawing, movement, or guessing games.

This is crucial because motivation underpins early learning. When young children are willing to participate, repeat activities, ask questions, and remain engaged, they create valuable learning opportunities. This aligns with play-based learning research, which

indicates that play promotes positive attitudes toward learning, including curiosity, persistence, confidence, and engagement (Yogman et al., 2018; Zosh et al., 2017). Children who find learning enjoyable are more likely to practice skills repeatedly without feeling pressured. This finding also reflects the principle of guided play. (Weisberg et al., 2015) propose that play can facilitate learning when adults create a fun environment and simultaneously guide children toward learning goals. In this study, parents frequently arranged playful activities that incorporated literacy or numeracy targets. For example, writing numbers on a child's back and having the child guess, hiding letters of the alphabet in two hands, or asking children to count football catches—all exemplify playful learning with a clear educational aim.

Children's positive reactions suggest that play helps to reduce emotional barriers to learning. Some parents noted that children prefer writing on a whiteboard or learning letters through play rather than writing in notebooks or reading from books. This highlights the significance of the material and emotional aspects of learning. Using objects such as whiteboards, toys, blocks, or games can make literacy or numeracy concepts feel less intimidating and more engaging. This is especially crucial in early childhood education because negative experiences with reading, writing, or math can cause children to avoid these subjects later on. When children associate learning with pressure or punishment, their motivation diminishes. Conversely, they are more likely to develop positive attitudes towards literacy and numeracy if learning is connected to shared play and parental attention.

Our findings indicated that mothers were the primary caregivers during the day, while fathers mainly assisted with sports and physical activities. In families of students and workers, grandparents were significant figures, and siblings and helpers also engaged

in children's play. This finding broadens the understanding of parental support beyond just the mother-child relationship. While much of the early childhood literature centers on mothers, this study indicates that in Bangladesh, home learning may be shared among the entire family. This aligns with Bronfenbrenner's ecological systems theory, which states that child development is influenced by interactions within the immediate environment, including family dynamics and caregiving roles (Bronfenbrenner, 1979). It also resonates with Vygotsky's sociocultural theory, which emphasizes that children's learning is socially mediated by more knowledgeable individuals.

The importance of fathers engaging in physical and sports-based play is also highlighted. While fathers are not always depicted as the main daytime caregivers, they often contribute after work or during active play. This indicates that father's involvement is often context-dependent but remains educationally valuable. Activities such as counting during football games, playing with alphabet toys, or participating in guessing games help foster early literacy and numeracy. Therefore, parent support programs should include fathers, rather than viewing early learning as solely a mother's responsibility.

Although parents generally viewed play-based learning positively, various factors hindered its consistent use at home. The main obstacle was a lack of time, with parents citing work pressures, study commitments, household chores, fatigue, children's tantrums, and limited patience. Some also mentioned space limitations, absence of nearby parks, and inadequate play facilities. Additionally, a few parents reported not knowing how to implement age-appropriate play strategies.

These findings align with the Nurturing Care Framework, which highlights that caregivers need knowledge, resources, services, and supportive environments to deliver

responsive care and promote early learning (World Health Organization, 2018). In this study, parents showed willingness to support their children but were limited by factors such as time, space, resources, and knowledge. Therefore, the issue is not solely a lack of parental interest but also the gap between their willingness and actual capacity to act. This finding aligns with research on play-based learning in Zambia, which indicated that culturally familiar and low-cost games can support child development (Mwinsa & Dagada, 2025). However, teachers may face difficulties related to resources, suitable materials, and pedagogical expertise. Although their study emphasized teachers and indigenous games in schools, the core message remains relevant here. Play-based learning works best when adults skillfully choose appropriate activities, modify them to suit children's developmental stages, and utilize familiar materials in purposeful ways.

The shortage of local play spaces and parks is a significant concern. Besides parental awareness, play-based learning at home depends on the physical and community environment. Children in crowded households or without safe outdoor spaces for play and movement may have fewer opportunities for active, outdoor, or movement-based activities. This highlights the need to consider early childhood development as a community-wide issue, not just a family matter. The study also revealed that parents seek training, workshops, books, modules, and guidance. This is a key contribution of the research. Parents weren't opposed to play-based learning; they simply wanted support to improve their efforts. This offers strong evidence for implementing affordable parent education programs in Bangladesh. Such programs could feature easy-to-understand examples of literacy and numeracy activities using household objects, advice on child psychology, age-appropriate tasks, and strategies to engage fathers and other caregivers.

This study expands the knowledge base by providing context-specific evidence of how Bangladeshi parents understand and support play-based early literacy and numeracy at home. While global literature highlights the importance of play, home learning, and parental involvement, there is limited qualitative data on how these concepts are understood and implemented within Bangladeshi families. This research addresses that gap by showcasing the types of play-based learning already integrated into daily family life. A significant contribution is the demonstration that parents are not passive or unaware; they employ a range of meaningful strategies, such as drawing, rhymes, alphabet blocks, cooking, counting household items, sports, guessing games, and word association. However, these activities tend to be informal, irregular, and constrained by time and resources. Therefore, parent support programs should build upon existing practices rather than introduce entirely new methods.

The study also adds to the discussion on providing affordable early childhood support. Parents frequently use inexpensive, readily available materials, which is crucial in Bangladesh, where not all families can afford commercial educational toys or private early learning services. The findings suggest that with practical guidance, parents can utilize everyday objects and routines to foster early literacy and numeracy development in their children.

The findings have several implications for early childhood practice, parent education, and policy in Bangladesh. Parent education programs should highlight play as a practical method to foster early literacy and numeracy skills. Examples of simple activities using household items—such as counting vegetables, matching colors, identifying letters on packages, storytelling with household objects, and using blocks for basic addition and subtraction—should be incorporated. Additionally, parental

support should engage both mothers and fathers. In this study, fathers contributed notably through active, sport-based play. Training initiatives and community messages should therefore recognize fathers as vital learning partners. Furthermore, guidance for families should be culturally and economically realistic. Instead of suggesting costly toys, programs should teach parents to utilize local, familiar, and affordable materials, especially in low- and middle-income settings where cost matters.

Community support is also essential. Parents report a lack of play facilities and parks. Local authorities, schools, NGOs, and community organizations could facilitate the creation of safe play areas, organize parent-child play sessions, and conduct community workshops on early learning through play. Finally, early childhood policies should recognize home-based learning as a key element in developing children's foundational literacy and numeracy skills. Schools and early childhood centers can help parents connect daily routines at home with those in the classroom.

This study offers valuable qualitative insights, though some limitations should be recognized. Since the results are drawn from interviews with only a small group of parents, they cannot be generalized to all Bangladeshi families. The findings rely on parents' self-reported practices; future research might include direct observation of the home environment to better understand how play-based literacy and numeracy activities occur naturally in daily routines. Additional studies could explore diverse family contexts, such as varying socioeconomic levels, rural versus urban settings, and nuclear versus extended family structures. It would also be beneficial to gain a deeper understanding of fathers' roles, given that this study indicates they may contribute differently from mothers, especially through physical and sports-related play. Ultimately, future intervention research could evaluate whether low-cost parent

training programs help boost parents' confidence and children's participation in early literacy and numeracy activities.

Conclusions

This study reveals that parents view play as a natural, enjoyable, and meaningful method to promote early literacy and numeracy at home. They utilize a range of play-based activities, including rhymes, alphabet toys, drawing, word games, and guessing exercises. Additionally, they integrate numeracy into daily routines such as cooking, counting household items, using fruits and vegetables, and playing physical games. Children respond enthusiastically to these activities, displaying interest, happiness, curiosity, and active engagement. However, parents face challenges such as limited time, work and study pressures, lack of space, inadequate local play facilities, and insufficient guidance on age-appropriate strategies. The study also highlights that collective caregiving, involving mothers, fathers, grandparents, siblings, and helpers, plays a role in home learning. Overall, findings indicate that play-based learning at home holds significant potential to foster early literacy and numeracy development in Bangladesh. This potential can be enhanced through parent training, involving fathers, culturally relevant materials, community play areas, and affordable guidance for families. The results support a community-centered, sustainable approach to early childhood education that leverages everyday practices in Bangladeshi homes.

Recommendations

- Offer low-cost, brief sessions featuring practical, real-life examples of playful literacy and numeracy activities that families can easily replicate at home.
- Encourage parents to utilize accessible, low-cost household materials—such as vegetables, packaging, blocks, balls, spoons, books, and drawings—as learning tools.
- Design guidance, workshops, and targeted messaging to actively engage both mothers and fathers, incorporating sports and active play where appropriate to boost father participation.
- Establish community-level infrastructure to support families, including safe play spaces, joint parent–child activities, and workshops organized by schools, NGOs, and local organizations.
- Formulate broader policy frameworks that formally recognize home-based learning as an integral component of children's foundational literacy and numeracy development.

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Appendix

Research instruments

The primary tools (open-ended questionnaire, audio recording, and notes) are included for the interview.

In-Depth Interview Questionnaire for Both Parents

Exploring parental support for early literacy and numeracy through play at home.

Background information-

- Parent's age
- Education level
- Parent's occupation
- Number of children
- Children's age

Section-A: Learning through play-

1. What do you understand by “learning through play”?
2. How do you think play can help children in learning?
3. What kinds of educational activities do you know for young children?

Section-B: Practices at home-

4. Who usually plays with the children (mother/father/others)?
5. How often do you play with your children?
6. What types of play activities do you do during play?

7. Can you describe a moment of playing together?
8. Do you use play to teach letters, words, or numbers?
9. How do you help your child learn the alphabet and words through play?
10. How do you teach numbers and counting in daily activities?
11. How does your child react or feel when learning through play? Can you give an example?

Section-C: Factors-

12. What challenges do you face in creating a learning environment at home?
And how to overcome these?
13. Do you feel confident in supporting your child's learning? Why or why not?
14. What kind of support or guidance would help you feel more confident?

উভয় অভিভাবকের জন্য প্রশ্নমালা

বাসায় খেলার মাধ্যমে শিশুদের প্রাথমিক শিক্ষা ও গুণনা শেখাতে অভিভাবকদের সহায়তা সম্পর্কে।

প্রাথমিক তথ্য

- অভিভাবকের বয়স
- শিক্ষাগত যোগ্যত ও পেশা
- সন্তানের বয়স ও সংখ্যা

অংশ ক- খেলার মাধ্যমে শেখা-

- ১- “খেলার মাধ্যমে শেখা” বলতে আপনার ধারণা কি?
- ২- খেলা কিভাবে শিশুদের শিখতে সাহায্য করে, আপনার মতামত কি?
- ৩- ছোট শিশুদের জন্য প্রয়োজনীয় এমন শিক্ষামূলক কার্যক্রম সম্পর্কে আপনার জানা আছে?

অংশ খ- বাসায় চর্চা-

- ৪- শিশুদের সাথে কে খেলা করেন, (মা, বাবা, অন্যান্য)?
- ৫- আপনি কতবার আপনার শিশুর সাথে খেলাধুলা করেন?
- ৬- খেলার সময় আপনি কি ধরনের খেলা করেন?
- ৭- আপনার সন্তানের সাথে একসাথে খেলা করার কোন মুহূর্ত সম্পর্কে বলেন?
- ৮- আপনি কি খেলার ছলে শিশুকে বর্ণ, শব্দ বা সংখ্যা শেখান?
- ৯- আপনি কিভাবে খেলার ছলে অক্ষর বা শব্দ শেখান?

১০- প্রতিদিন কাজের মাধ্যমে আপনি কিভাবে সংখ্যা ও গুণনা শেখান?

১১- খেলার ছলে শেখার সময় আপনার শিশুর অনুভূতি কেমন থাকে, একটি উদাহরণ বলুন?

অংশ গ- প্রভাবক-

১২- বাসায় শেখার পরিবেশ তৈরি করতে গিয়ে আপনার কি কি সমস্যা হয় এবং কিভাবে

মোকাবিলা করেন?

১৩- আপনার সন্তানকে শেখায় সহায়তা করতে আপনি কি আত্মবিশ্বাসী অনুভব করেন?

কেন বা কেন নয়?

১৪- কোন ধরনের সহায়তা আপনাকে আরও আত্মবিশ্বাসী করতে পারে বলে মনে করেন?

**Human Participant Research Policy
&
Letter of Informed Consent**

**Title of Study: Exploring Parental Support for Early Literacy and Numeracy
through Play at Home**

Researcher Name: Dilruba Hossain

Institution: BRAC University

Contact Information: drubahossain09@gmail.com

Participant Information

You are invited to participate in a research study exploring how parents use play-based activities to support early literacy and numeracy development at home. The purpose of this study is to understand parents' knowledge, beliefs, and practices regarding play as a learning strategy.

Participation involves a 45-minute semi-structured interview following the in-depth Interviews (IDI) guideline, conducted via online (call). With your permission, the interview will be audio-recorded for research purposes.

Your participation is voluntary. You may refuse to answer any question or withdraw from the study at any time without any negative consequences.

Confidentiality

All information provided will remain confidential. Your name will not appear in any reports or publications. A pseudonym will be used instead. Data will be stored securely and accessed only by the researcher.

Risks and Benefits

There are no significant risks associated with participating in this study. While there may be no direct personal benefit, your participation may help improve understanding of early childhood learning practices in Bangladesh and inform future programs and policies.

Consent Statement

I have read and understood the information above. I voluntarily agree to participate in this study.

Participant Name:

Signature:

Date:

Researcher Signature:

Date: