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Assessing the Influence of Home Literacy Environment on the Literacy and Numeracy Skills of Preschoolers

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ABSTRACT: *This study assessed the influence of the home literacy environment on the literacy and numeracy skills of preschoolers. Utilizing a descriptive-correlational research design, the study aimed to determine the status of home literacy environments as perceived by parents, covering physical environment, parent and child literacy habits, parent-child interaction, and parental beliefs. It also measured learners' proficiency in alphabet knowledge, phonological awareness, book and print knowledge, number skills, attribute identification, and thinking skills. Purposive sampling was employed to select 100 parent respondents and two preschool teachers. Data were gathered using a validated home literacy environment questionnaire and the DepEd LitNum Assessment Tool. Statistical analysis involved frequency counts, weighted means, and Pearson's correlation coefficient. Results revealed that while most households demonstrated positive literacy environments and learners generally achieved intermediate to advanced levels in both literacy and numeracy, the relationships between the home literacy environment and children's academic skills were not statistically significant ($p > 0.05$). Nonetheless, findings highlighted specific gaps, particularly in book and print knowledge, which warranted targeted intervention. In response, a comprehensive action plan was developed to foster stronger home-school partnerships, promote skill-specific learning activities, and institutionalize sustainable family engagement practices. The research underscored the need for collaborative, skill-focused strategies to enhance early learning outcomes.*

Key words*: Descriptive-correlational design, Early Childhood Education, Home literacy environment, Literacy, Numeracy, Parental beliefs.*

1. Introduction

In the rapidly evolving educational landscape, the foundation of a child's academic journey lay in the early development of literacy and numeracy skills. These foundational competencies were significantly shaped by the home environment, where early interactions, access to print materials, and parental involvement played pivotal roles (Niklas & Schneider, 2017). The home literacy environment (HLE), encompassing physical resources, parent and child literacy habits, and the quality of parent-child interactions, was increasingly recognized as a crucial determinant of children's school readiness and academic success (Sénéchal & LeFevre, 2002). This study intended to assess the influence of the home literacy environment on the literacy and numeracy skills of preschoolers at Mabolo Elementary School in the DepEd Cebu City Division for School Year 2024–2025, and to propose an action plan based on its findings. Globally, educational institutions aligned their efforts to promote inclusive and equitable quality education, in response

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to Sustainable Development Goal (SDG) 4, which aimed to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (United Nations, 2015). This goal underscored the importance of early childhood education as a foundation for lifelong learning and sustainable development. Both UNESCO and UNICEF emphasized that Early Childhood Care and Education (ECCE) was not merely a preparatory stage for formal schooling but a critical period that shaped cognitive, emotional, and social development. ECCE provided the building blocks for acquiring literacy and numeracy skills, yet access to such quality early education remained highly unequal. In many parts of the world— especially in low- and middle-income countries—children entered formal schooling without sufficient exposure to literacy-rich environments at home, leaving them at a disadvantage from the start.

Despite international commitments, disparities in early learning persisted, with millions of children lacking the basic skills needed to thrive in school. According to UNESCO (2020), more than 250 million children globally were not acquiring fundamental reading and mathematics competencies, an alarming figure that reflected deeper issues such as poverty, conflict, underinvestment in education, and limited parental support. These challenges were often rooted in the home, where access to books, educational play materials, and stimulating interactions with caregivers was limited. Consequently, children from marginalized communities were more likely to fall behind even before their first day of school. Addressing these inequalities required a holistic understanding of the home literacy environment, as it significantly influenced school readiness and long-term academic outcomes. Strengthening this environment aligned not only with SDG 4 but also with the broader missions of UNICEF and UNESCO to reduce inequities and provide every child with a fair and equal start in life.

In the Philippine context, the reading crisis remained a pressing concern. The results of the 2018 Programme for International Student Assessment (PISA) revealed that 80% of 15-year-old Filipino students were below the minimum proficiency level in reading (OECD, 2019). This issue often traced its roots to the early years of education, where many learners were promoted to the next grade level despite being unable to read fluently or comprehend texts. The Department of Education had acknowledged this "mass promotion" practice, which undermined the quality of learning and the accurate assessment of a child's readiness to move forward (Mateo, 2020). Studies showed that challenges in reading were common among learners in the early grades, especially in public schools where learning resources at home were limited, and parental support varied widely (David et al., 2022). Moreover, literacy and numeracy were interrelated domains essential for holistic child development. Young learners exposed to rich home literacy environments not only excelled in reading but also in early mathematical reasoning (Muter et al., 2004). However, as digital learning platforms became more accessible, there was a growing interest in the effectiveness of technology-based games in supporting the development of literacy and numeracy among preschoolers. These games, when thoughtfully integrated, offered interactive, engaging, and age- appropriate learning experiences that reinforced classroom instruction and compensated for the gaps in home support (Plowman & Stephen, 2005).

Given these issues, it was imperative to conduct this study to assess the extent to which the home literacy environment affected the literacy and numeracy skills of preschoolers. Through this investigation, educational stakeholders were able to better understand the influence of home-based factors on early learning outcomes and explore actionable strategies such as integrating technology-based learning games to enhance these foundational skills. The proposed action plan served as a guide for educators and parents in strengthening early learning support systems both at home and in school, in alignment with global and national efforts to improve educational equity and quality.

2. Review of Related Literature

The home literacy environment (HLE) plays a pivotal role in shaping children's early literacy development, encompassing aspects such as availability of literacy materials, parents' own literacy behaviors, and parent-child interactions around reading. Studies consistently show that the richness of the physical environment like the quantity and quality of children's books and educational toys is associated with improved emergent literacy skills, including alphabet knowledge and phonological awareness (Sénéchal & LeFevre, 2002) (Weigel, Martin, & Bennett, 2006). Parental literacy habits, such as modeling reading and demonstrating positive attitudes toward books, further reinforce children's own literacy engagement (Niklas & Schneider, 2013). For example, parents who regularly read aloud to their children promote book and print knowledge by exposing children to text structures, vocabulary, and phonemic patterns (Bus, van IJzendoorn,

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& Pellegrini, 1995). Additionally, parent-child interactions that involve dialogic reading actively engaging children with questions and discussions have been found to significantly enhance emergent literacy outcomes (Whitehurst et al., 1988).

Beyond literacy, researchers have also identified associations between HLE and the development of early numeracy skills. For example, parents' beliefs about the importance of numeracy, coupled with informal home numeracy practices such as counting games and discussing quantities during daily routines, predict children's numeracy knowledge, including number recognition and early arithmetic thinking (LeFevre et al., 2009) (Mutaf-Yildiz, Sasanguie, De Smedt, & Reynvoet, 2020). Moreover, shared parent-child activities involving numbers and problem-solving foster children's ability to identify attributes and develop thinking skills related to categorization and measurement (Skwarchuk, Sowinski, & LeFevre, 2014). Evidence suggests that parental beliefs about the value of literacy and numeracy are predictive of the frequency and quality of home learning activities, with downstream effects on both literacy and numeracy performance in preschool (Napoli & Purpura, 2018) (Davidse, de Jong, Bus, Huijbregts, & Swaab, 2011). Overall, these findings underscore the multifaceted nature of the home learning environment in cultivating foundational skills crucial for later academic success (Niklas, Cohrssen, & Tayler, 2016).

3. Methodology

This study employed a descriptive-correlational research design to comprehensively examine how the home literacy environment (HLE) influences the literacy and numeracy skills of preschoolers enrolled at Mabolo Elementary School. The descriptive component aimed to profile both the learners' academic competencies and the characteristics of their home learning environments, while the correlational aspect analyzed relationships between these factors without manipulating variables. Two primary groups participated: 2 preschool teachers and 100 parents or guardians, totaling 102 respondents. Data were collected using the Literacy and Numeracy (LitNum) Assessment Tool developed by the Philippine Department of Education and a Survey Questionnaire for Parents, which incorporated an adapted instrument originally created by Buvaneswari and Padakannaya (2017) to capture five dimensions of the HLE (physical environment, parent literacy habits, child literacy habits, parent-child interactions, and parental beliefs). The LitNum Assessment measured key early literacy domains (alphabet knowledge, phonological awareness, book and print knowledge) and numeracy domains (number recognition, identifying attributes, and thinking skills). Children's raw scores were converted to percentage scores and classified into four performance levels: Beginning, Developing, Proficient, and Advanced. The parent survey used a five-point Likert scale to quantify the frequency and consistency of home literacy practices. Descriptive statistics (frequency, percentage, weighted mean) summarized the profiles, while the Pearson Product-Moment Correlation Coefficient tested the strength and direction of associations between home literacy variables and learner outcomes. This methodology allowed for an integrated analysis of quantitative and qualitative data, providing evidence-based insights into the connection between home environments and children's foundational academic skills.

The data presented in Table 1 reveal that the physical environment of the home literacy setting was generally very positive, with an aggregate weighted mean of 4.06, corresponding to a "Very Satisfactory" verbal description. Among the eight indicators assessed, the highest weighted means were observed for the presence of toys that teach colors, shapes, and sizes (WM = 4.63, SD = 0.53), the availability of alphabet books and related materials (WM = 4.37, SD = 0.77), and the accessibility of toys and books to the child (WM = 4.31, SD = 0.90), all rated as "Excellent." These findings suggest that most households provided rich and stimulating materials supporting early literacy development. Indicators such as having toys that teach animal and object names (WM = 4.21) and the presence of toys requiring refined movements (WM = 3.97) were also rated highly, indicating parents' commitment to offering varied educational resources. Conversely, having at least ten children's books (WM = 3.31) received the lowest mean and was only described as "Satisfactory," highlighting a potential area for improvement in building home libraries. The standard deviations ranged from 0.53 to 1.19, suggesting moderate variability in how consistently these resources were available across homes. Overall, the data illustrate that while most households maintained an environment conducive to literacy learning, there were variations in the quantity and types of materials, with some gaps in book ownership that could benefit from targeted support or interventions.

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Table 1. Status of Literacy Environment at their Home in terms of Physical Environment.

S/N	Indicators	WM	SD	Verbal Description
1	My child has toys that teach colors, shapes, sizes, etc.	4.63	0.53	Excellent
2	My child has three or more puzzles	3.81	1.11	Very Satisfactory
3	My child has toys or games requiring refined movements	3.97	1.13	Very Satisfactory
4	My child has at least 10 children's books	3.31	1.19	Satisfactory
5	My child has toys that help teach the names of animals, vehicles, fruits, etc.	4.21	1.01	Excellent
6	We have alphabet books/blocks/magnetic letters/flashcards/workbooks at home	4.37	0.77	Excellent
7	There is a designated place for books and toys at home	3.87	1.09	Very Satisfactory
8	The toys and books are accessible to the child	4.31	0.90	Excellent
	Aggregate Weighted Mean	4.06		Very Satisfactory
	Aggregate Standard Deviation		0.97	

Table 2. Status of Literacy Environment at their Home in terms of Parent Literacy Habits.

S/N	Indicators	WM	SD	Verbal Description
1	Our family buys and reads daily newspaper	2.94	1.23	Satisfactory
2	My child sees me writing/typing	4.21	1.05	Excellent
3	My child sees me reading non-work-related things, for pleasure	3.94	1.12	Very Satisfactory
4	My child sees me playing word games, crossword, etc.	3.92	1.01	Very Satisfactory
5	I enjoy talking about books related to various topics with friends and family members	4.15	4.05	Very Satisfactory
6	I go to bookstores/library along with my child	3.26	1.23	Satisfactory
7	I personally enjoy reading a habit	3.68	1.16	Very Satisfactory
8	My child sees me reading books/magazines/newspapers	3.92	1.11	Very Satisfactory
	Aggregate Weighted Mean	3.75		
				Very Satisfactory
	Aggregate Standard Deviation		1.49	

Table 2 shows the status of the home literacy environment in terms of parent literacy habits, with an aggregate weighted mean of 3.75, rated "Very Satisfactory." Among the eight indicators, the highest rating was for parents modeling writing or typing in front of their child (WM = 4.21, SD = 1.05), classified as "Excellent," suggesting that children frequently observed parents engaged in purposeful writing activities. Other strongly rated practices included discussing books with family and friends (WM = 4.15), and reading for pleasure (WM = 3.94–3.92), all described as "Very Satisfactory," reflecting a home atmosphere where literacy is valued and visibly integrated into daily life. Notably, the lowest mean score was found in the practice of buying and reading newspapers daily (WM = 2.94, SD = 1.23), which was rated only "Satisfactory," indicating that traditional print media consumption was less common in households. Similarly, going to bookstores or libraries with children (WM = 3.26) also received a "Satisfactory" description, highlighting an area where families might need encouragement or support to engage more frequently. The aggregate standard deviation of 1.49 shows considerable variability across households in how consistently these literacy behaviors were practiced. Overall, the data suggest that while many parents regularly model positive literacy habits, there is room to strengthen practices such as reading newspapers and visiting literacy-rich community spaces to further enrich children's literacy experiences.

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Table 3. Status of Literacy Environment at their Home in terms of Child Literacy Habits.

S/N	Indicators	WM	SD	Verbal Description
1	My child asks for help learning the letters of the alphabet	4.31	0.99	Excellent
2	My child asks for help while writing	4.25	1.06	Excellent
3	My child asks for books to be read to him/her	4.05	0.93	Very Satisfactory
4	My child pretends to read from books or says stories to himself/herself	3.64	1.24	Very Satisfactory
5	My child shows interest in reading signboards when we go out	4.21	0.80	Excellent
6	My child shows interest in identifying the product by looking at an advertisement or the wrapper of the product	4.29	0.75	Excellent
	Aggregate Weighted Mean	4.13		Very Satisfactory
	Aggregate Standard Deviation		0.96	

Table 3 presents the status of the home literacy environment in terms of child literacy habits, revealing an aggregate weighted mean of 4.13, which corresponds to a "Very Satisfactory" rating overall. Several indicators were rated "Excellent," reflecting strong literacy engagement among children. The highest ratings were seen in children asking for help learning letters of the alphabet (WM = 4.31, SD = 0.99), showing interest in identifying products by looking at advertisements or wrappers (WM = 4.29, SD = 0.75), and seeking help while writing (WM = 4.25, SD = 1.06). These findings indicate that many children are actively involved in learning print concepts and are motivated to develop foundational literacy skills. Interest in reading signboards while outside (WM = 4.21) also rated "Excellent," highlighting the role of environmental print in early literacy. Children frequently asked for books to be read to them (WM = 4.05) and often pretended to read or narrated stories independently (WM = 3.64), both rated "Very Satisfactory," demonstrating emergent reading behaviors and imaginative engagement with text. The relatively low standard deviations, particularly in items like product identification and signboard reading, suggest consistency across households in these practices. Overall, the data depict a highly supportive environment where children are regularly exposed to and interested in literacy experiences both at home and in their surroundings, laying a solid foundation for reading and writing development.

Table 4 provides a comprehensive view of the status of the home literacy environment in terms of parent-child interaction, showing an aggregate weighted mean of 4.24, which falls in the "Excellent" category overall. This indicates that most parents actively engage their children in rich, supportive literacy interactions. The highest-rated practices included teaching simple verbal manners (WM = 4.75, SD = 0.60) and encouraging children to talk while listening attentively (WM = 4.72, SD = 0.65), underscoring strong foundations in language modeling and responsive communication. Other consistently excellent practices were teaching nursery rhymes and songs (WM = 4.60), making stories more engaging by changing voices (WM = 4.00), pointing to words while reading (WM = 4.30), translating stories into the home language when needed (WM = 4.29), and connecting stories to children's lives (WM = 4.33).

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Table 4. Status of Literacy Environment at their Home in terms of Parent-Child Interaction.

S/N	Indicators	WM	SD	Verbal Description
1	I teach simple verbal manners (please, sorry, thank you, etc.	4.75	0.60	Excellent
2	I encourage my child to talk and take time to listen	4.72	0.65	Excellent
3	I teach nursery rhymes and songs to my child	4.60	0.65	Excellent
4	I name pictures in books and talk about the pictures	4.32	0.80	Excellent
5	I read stories to my child	4.14	0.86	Very Satisfactory
6	I point out to words in magazines/newspapers	3.60	1.19	Very Satisfactory
7	I help my child solve jigsaw puzzles	3.85	1.07	Very Satisfactory
8	I encourage my child to act out a story	4.04	0.91	Very Satisfactory
9	I encourage my child to read product labels, street signs, and signboards	4.27	0.75	Excellent
10	When we read, I try to sound excited so my child stays interested	4.38	0.69	Excellent
11	I ask my child a lot of questions when we read	4.20	0.70	Very Satisfactory
12	I try to make the story more real to my child by relating the story to his/her life	4.33	0.74	Excellent
13	When we read, we talk about the pictures as much as we read the story	4.33	0.62	Excellent
14	When we read, I encourage my child to tell the story	4.23	0.67	Excellent
15	When we read, I ask my child to point out to different letters/numbers printed in the book	4.28	0.74	Excellent
16	I play reading-related games with my child	4.15	0.89	
17	I tell stories to my child	4.25	0.80	Excellent
18	I point my child's finger to words when I read to him/her	4.30	0.70	Excellent
19	I speak to my child about what happened during the day	4.22	0.80	Excellent
20	My child and I make new rhymes by playing with words/sounds	3.90	0.92	Very Satisfactory
21	I change my voice to suit the characters when I read to my child	4.00	0.83	Very Satisfactory
22	I talk to my child about what he/she watches on TV	4.26	0.81	Excellent
23	I translate the stories into our home language when my child does not understand English words	4.29	0.74	Excellent
	Aggregate Weighted Mean	4.24		
	Aggregate Standard Deviation		0.79	Excellent

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Table 5. Status of Literacy Environment at their Home in terms of Parental Beliefs

S/N	Indicators	WM	SD	Verbal Description
1	Parents can teach alphabets to their child in addition to what is taught in school	4.64	0.67	Excellent
2	Parents can help their child to read and write words in addition to what is taught in school	4.65	0.68	Excellent
3	Most children do well at reading words in school because their parent teaches them to read words at home	4.49	0.71	Excellent
4	Parents have the responsibility to teach reading and writing skills to their child	4.66	0.61	Excellent
5	Most parents should supplement the literacy skills their child learns at school by teaching their child literacy skills at home	4.61	0.66	Excellent
6	Parents should select books based on their colorful illustrations high-interest con- tent and natural language	4.45	0.79	Excellent
7	Parents should develop the child's confidence and interest in putting ideas on paper in whatever form they can (drawing writing etc.)	4.5	0.73	Excellent
8	Parents should help in developing child's ability to divide a word into parts or syllables to read new words	4.55	0.7	Excellent
9	I think that it is important to develop a broad interest in reading in my child	4.65	0.67	Excellent
10	I think that it is important to develop my child's ability to hear the separate sounds in spoken words such as "f" in "fish"	4.58	0.64	Excellent
	Aggregate Weighted Mean	4.58		
	Aggregate Standard Deviation			Excellent
			0.69	

These findings demonstrate that parents not only read to their children but also make reading interactive, expressive, and personally meaningful. Although some activities such as pointing out words in newspapers (WM = 3.60) and making new rhymes (WM = 3.90) received lower but still "Very Satisfactory" ratings, the overall pattern reflects a highly engaged approach to fostering early literacy. The aggregate standard deviation of 0.79 indicates relatively low variability, meaning these practices were common across most households. Collectively, these results show that parents provide frequent and high-quality literacy interactions that are likely to contribute positively to children's language development and enthusiasm for learning.

Table 5 illustrates the status of the home literacy environment in terms of parental beliefs, showing an exceptionally strong commitment to supporting children's early literacy development. The aggregate weighted mean is 4.58, which is rated "Excellent," reflecting that parents hold highly positive and proactive beliefs about their role in teaching literacy skills. All ten indicators achieved "Excellent" ratings, indicating widespread agreement that parents have an essential role alongside schools in fostering literacy. The highest-rated belief was that parents have the responsibility to teach reading and writing skills to their children (WM = 4.66, SD = 0.61), closely followed by the importance of helping children read and write words beyond what is taught in school (WM = 4.65) and developing a broad interest in reading (WM = 4.65). Parents also strongly agreed on selecting engaging books with colorful illustrations (WM = 4.45) and nurturing children's

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confidence in expressing ideas on paper (WM = 4.50). Beliefs about phonological awareness like teaching children to hear separate sounds in words (WM = 4.58) and dividing words into syllables (WM = 4.55) also received very high ratings, emphasizing parents' understanding of foundational reading skills. The aggregate standard deviation of 0.69 indicates low variability, suggesting these positive beliefs are widely shared across respondents. Overall, the data reflect a robust consensus that parents view themselves as critical partners in their children's literacy development, supporting both skill acquisition and motivation to read.

Table 6. Level of Literacy Skills of the Learners in terms of Alphabet Knowledge.

Level	f	%
Advanced	102	100.00
Intermediate	0	0.00
Beginner	0	0.00
Total	102	100.00

Table 6 shows the level of literacy skills of the learners in terms of alphabet knowledge, revealing that all 102 preschool learners (100%) were classified as Advanced. This means every child consistently demonstrated mastery of recognizing and identifying uppercase and lowercase letters, performing well above the expected developmental benchmarks for their age. No learners fell into the Intermediate or Beginner categories, indicating a uniformly high level of proficiency in this foundational literacy skill across the entire sample. This strong outcome suggests that both home and school environments provided highly effective support for alphabet knowledge, laying a solid groundwork for further reading and writing development.

Table 7. Level of Literacy Skills of the Learners in terms of Phonological Awareness.

Level	f	%
Advanced	95	93.14
Intermediate	7	6.86
Beginner	0	0.00
Total	102	100.00

Table 7 presents the level of literacy skills of the learners in terms of phonological awareness, showing that the vast majority of preschoolers demonstrated a high degree of proficiency. Specifically, 95 learners (93.14%) were classified as Advanced, indicating they could consistently recognize and manipulate sounds in spoken words, such as identifying rhymes, blending syllables, and isolating phonemes. An additional 7 learners (6.86%) were at the Intermediate level, reflecting developing skills that still required occasional support or practice. Notably, no learners were classified as Beginners, underscoring that all children had at least a moderate command of phonological awareness. Overall, these results demonstrate a very strong foundation in this critical early reading skill among the group.

Table 8. Level of Literacy Skills of the Learners in terms of Book and Print Knowledge.

Level	f	%
Advanced	61	59.80
Intermediate	41	40.20
Beginner	0	0.00
Total	102	100.00

Table 8 shows the level of literacy skills of the learners in terms of book and print knowledge, indicating that most children had developed strong familiarity with basic print concepts. Specifically, 61 learners (59.80%) were classified as Advanced, demonstrating that they consistently understood how books work, could identify parts of a book, and recognized that print carries meaning. Meanwhile, 41 learners (40.20%) were at the Intermediate level, showing they had developing but not yet fully mastered skills in this area and still benefited from support and practice. Importantly, no learners were classified as Beginners, highlighting that all children had at least foundational awareness of book handling and print conventions. Overall, the

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results suggest that while a majority had achieved high proficiency, a substantial proportion of learners still required reinforcement to reach full mastery of print concepts.

Table 9. Level of Numeracy Skills of the Learners in terms of Numbers

Level	f	%
Advanced	102	100.00
Intermediate	0	0.00
Beginner	0	0.00
Total	102	100.00

Table 9 shows the level of numeracy skills of the learners in terms of numbers, revealing that all 102 learners (100%) were classified as Advanced. This means every preschooler demonstrated full mastery of early number concepts, such as counting objects accurately, recognizing and naming numerals, and writing numbers independently. No learners fell into the Intermediate or Beginner categories, indicating consistently excellent numeracy performance across the entire group. These results reflect highly effective instruction and home support in developing number skills, providing a strong foundation for future mathematics learning.

Table 10. Level of Numeracy Skills of the Learners in terms of Identifying Attributes.

Level	f	%
Advanced	101	99.02
Intermediate	1	0.98
Beginner	0	0.00
Total	102	100.00

Table 10 presents the level of numeracy skills of the learners in terms of identifying attributes, showing that nearly all preschoolers demonstrated exceptional proficiency in this area. Specifically, 101 learners (99.02%) were classified as Advanced, meaning they consistently and accurately recognized and described attributes such as colors, shapes, and sizes. Only 1 learner (0.98%) was at the Intermediate level, indicating developing skills that required occasional support. Notably, no learners were classified as Beginners, reflecting that all children had at least a solid grasp of attribute identification. Overall, these results highlight a uniformly strong performance, suggesting highly effective exposure to early math concepts both at home and in school.

Table 11. Level of Numeracy Skills of the Learners in terms of Thinking Skills.

Level	f	%
Advanced	102	100.00
Intermediate	0	0.00
Beginner	0	0.00
Total	102	100.00

Table 11 shows the level of numeracy skills of the learners in terms of thinking skills, revealing that all 102 learners (100%) were classified as Advanced. This indicates that every child demonstrated excellent ability to use higher-order thinking processes such as categorizing objects, comparing quantities, recognizing patterns, and solving simple problems. No learners were rated as Intermediate or Beginner, reflecting complete mastery of these critical cognitive skills. Overall, the results highlight an exceptionally strong level of early numeracy reasoning across the entire group, suggesting that both the home and school environments were highly effective in nurturing children's thinking and problem-solving abilities.

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Table 12. Test of relationship between the Status of Literacy Environment at their Home and Literacy Skills of the Learners.

Literacy Environment VS:	r-value	Strength of Correlation	p - value	Decision	Remarks
Alphabet Knowledge	-0.117	Negligible Negative	0.242	Do not reject Ho	Not Significant
Phonological Awareness	-0.030	Negligible Negative	0.763	Do not reject Ho	Not Significant
Book and Print Knowledge	-0.155	Negligible Negative	0.120	Do not reject Ho	Not Significant

Note: *significant at p<0.05 (two-tailed).

Table 12 presents the test of relationship between the status of the home literacy environment and the literacy skills of the learners, showing that none of the correlations reached statistical significance. For alphabet knowledge, the correlation coefficient was r = -0.117, indicating a negligible negative relationship, with a p-value of 0.242, leading to the decision to not reject the null hypothesis and concluding there is no significant association. Similarly, for phonological awareness, the correlation was even weaker (r = -0.030) and non-significant (p = 0.763). Finally, the relationship between the home literacy environment and book and print knowledge was also negligible and negative (r = -0.155) with a p-value of 0.120, again showing no significant relationship. These results suggest that despite the generally excellent home literacy environments reported by parents, there was no statistically significant correlation between the measured aspects of the literacy environment and children's performance in alphabet knowledge, phonological awareness, or book and print knowledge in this sample.

Table 13. Test of relationship between the Status of Literacy Environment at their Home and Numeracy Skills of the Learners.

Literacy Environment VS:	r-value	Strength of Correlation	p - value	Decision	Remarks
Numbers	0.036	Negligible Positive	0.722	Do not reject Ho	Not Significant
Identifying Attributes	0.070	Negligible Positive	0.484	Do not reject Ho	Not Significant
Thinking Skills	-0.044	Negligible Negative	0.663	Do not reject Ho	Not Significant

Note: *significant at p<0.05 (two-tailed)

Table 13 shows the test of relationship between the status of the home literacy environment and the numeracy skills of the learners, indicating that no significant associations were found. For numbers, the correlation coefficient was r = 0.036, reflecting a negligible positive relationship, with a p-value of 0.722, meaning the null hypothesis was not rejected, and the result was not significant. In the area of identifying attributes, the correlation was slightly higher (r = 0.070) but still negligible and non-significant (p = 0.484). Lastly, for thinking skills, there was a negligible negative correlation (r = -0.044) and a p-value of 0.663, again leading to the conclusion that no significant relationship existed. Overall, these findings suggest that while children demonstrated excellent numeracy skills overall, these outcomes did not show a statistically meaningful correlation with variations in the reported home literacy environment dimensions measured in this study.

4. Conclusion

The study concluded that preschoolers were surrounded by a highly supportive home literacy environment, characterized by rich resources, positive parental attitudes, and active engagement in literacy activities, which collectively fostered a culture that valued early learning. As a result, leamers demonstrated advanced proficiency in key literacy and numeracy skills, confirming the effectiveness of combined family and school efforts in promoting foundational development. However, statistical analysis revealed no significant relationship between variations in the home literacy environment and children's academic performance, likely due to the uniformly high quality of support that created a ceiling effect where additional

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differences no longer impacted outcomes. These findings emphasize the importance of maintaining strong home-school partnerships and continually innovating early education practices to ensure all children remain engaged, challenged, and supported in their growth.

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