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| RESEARCH ARTICLE

Exploring the Influence of Parental Involvement on the Literacy and Numeracy Skills of the Learners

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| ABSTRACT
This study investigated the connection between parental involvement and the development of literacy and numeracy skills among preschool learners. Data were gathered through a modified parental involvement questionnaire and an assessment tool provided by the Department of Education to measure literacy and numeracy competencies. Findings revealed that parents showed a very high level of engagement, particularly in providing support at home and maintaining communication with their children. Learners, in turn, displayed strong performance in both literacy and numeracy domains, reflecting effective foundational learning. Despite these encouraging outcomes, statistical results showed that parental involvement did not have a significant influence on most areas of literacy and numeracy. However, a slight but meaningful relationship was observed between parental involvement and one aspect of literacy specifically, phonological awareness indicating that certain types of parental engagement may have more impact than others. These results suggest that while parents are actively participating in their children's education and learners are doing well academically, the influence of such involvement may not be uniform across all skill areas. The study underscores the importance of providing targeted support and guidance to parents, helping them engage in more effective practices that could enhance their children's learning in a broader and more impactful way.

| KEYWORDS

Parental involvement, early childhood education, literacy and numeracy skills.

| ARTICLE INFORMATION

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1. Introduction

Parental engagement is a critical factor in shaping young children's academic growth, particularly in the domains of early reading and mathematics (Slicker et al., 2021). During the preschool years, children undergo rapid cognitive development, forming the foundational skills necessary for long-term academic achievement (Mamuladze et al., 2024). These early years present a unique window of opportunity where parental influence can have a lasting impact on learning outcomes (Likhar & Patil, 2022). Research has consistently demonstrated that when parents participate in their child's education through home-based learning activities like reading and counting, attending school events, or maintaining regular communication with teachers children show stronger abilities in literacy, numeracy, and problem-solving tasks (Renuka, 2025; Huda & Haenila, 2024). These interactions not only reinforce academic content introduced in the classroom but also help to create a supportive learning environment that boosts children's confidence, motivation, and curiosity. This link between parental involvement and academic development is especially vital in under-resourced communities, where schools may face challenges in delivering individualized support, and where strong home-school, partnerships are not yet fully established. In such contexts, empowering parents to engage meaningfully with their children's learning can serve as a powerful strategy to close early achievement gaps and promote educational equity (Simweleba, 2017).

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At home, parents support learning through a variety of informal yet powerful educational activities such as storytelling, counting games, singing rhymes, and shared book reading (Del Negro et al., 2021). These experiences are not only enjoyable but are also critical in laying the groundwork for emergent literacy and numeracy development. Storytelling and frequent exposure to written language help children become familiar with vocabulary, sentence structure, and the relationship between spoken and written words. Research shows that such practices significantly enhance children's letter recognition, phonemic awareness, vocabulary, and print concepts—skills that are essential for early reading development (French, 2013). In addition to literacy, numeracy skills also flourish in home environments where caregivers engage children in playful math-related activities. These may include identifying numbers in everyday objects, sorting toys by shape or color, or using household items to introduce counting and simple addition. Such activities cultivate children's number sense, spatial awareness, pattern recognition, and early problem-solving skills all of which are predictors of later academic achievement in mathematics (Salminen et al., 2021). The home thus functions as a complementary learning environment that supports and reinforces what is taught in preschool classrooms, enabling children to practice and internalize concepts in a familiar, low-pressure setting.

Moreover, how often and how effectively parents get involved in their children's early education depends on a variety of factors, including their educational background, socioeconomic status, and personal beliefs about the value of schooling. Parents with higher levels of education are more likely to engage in cognitively stimulating home activities such as shared reading, storytelling, and numeracy games that directly enhance children's literacy and numeracy skills (Sonowal & Maraichelvi, 2023). These parents also tend to provide a richer array of learning resources, including books, educational toys, and access to digital tools that promote skill development (Salminen et al., 2021). Additionally, parental beliefs such as confidence in their ability to teach their children and the perceived importance of early education play a crucial role in shaping involvement behaviors (Elliott et al., 2021). For instance, some parents may value education but feel unprepared to support their child's learning due to limited formal schooling or language barriers. In such cases, involvement may be limited despite high motivation.

Different forms of involvement also produce different outcomes. While attending events is helpful, direct interactions such as reading stories, doing letter and number exercises, and prompting critical thinking lead to more notable academic gains (Jeffries, 2012). For instance, discussing plots during shared reading improves language skills, while sorting and comparing objects strengthens numerical understanding. However, some parents lack the know-how to effectively support numeracy at home, underscoring the need for teacher-led guidance (Simweleba, 2017).

Language quality is another vital element. Research shows that parents who use "decontextualized language" talk that includes abstract ideas and explanations help children build stronger verbal and reasoning skills. These conversations, which extend beyond immediate situations, are linked to improved literacy and numeracy over time (Conica et al., 2023). When parents include questions about predicting outcomes or comparing objects during play, they create cognitively rich interactions that complement classroom learning.

Considering these findings and the growing expectations of preschool education, the current study at Bulacao Community School aims to assess the extent of parental engagement and how it correlates with preschoolers' abilities in literacy and numeracy. The assessment will focus on alphabet recognition, sound awareness, and print skills for literacy, as well as counting, shape recognition, and logical thinking for numeracy. Insights from this research will guide educators in crafting strategies to strengthen family-school collaboration, ensuring children are well-prepared for future academic challenges.

2. Literature Review

Parental involvement continues to be a well-established factor in fostering children's early academic success, particularly in developing literacy skills. A growing body of research highlights that when parents engage in home activities like reading aloud, recognizing letters, and practicing phonics, children tend to acquire stronger alphabet knowledge, phonological awareness, and print understanding. For example, Renuka (2025) emphasized that consistent parental reading routines and literacy engagement were directly linked to improvements in vocabulary and early reading abilities among preschoolers (Renuka, 2025). Similarly, findings by Fatonah (2020) revealed that targeted literacy efforts by parents such as memorization activities and creating text-rich environments resulted in better reading readiness in young children (Fatonah, 2020). In addition to the amount of involvement, the quality of parent-child communication plays a crucial role; using abstract, or "decontextualized," language in daily conversations has been shown to significantly support vocabulary growth and literacy development over time (Conica et al., 2023).

In numeracy development, parental engagement is equally influential in nurturing early mathematical skills. Simple home interactions that include counting objects, recognizing number patterns, and comparing quantities help children build core competencies in numeracy. Research by Safitri et al. (2025) highlighted that parents who supported math learning through games and household routines saw measurable improvements in their children's numeracy performance (Safitri et al., 2025).

Likewise, Salminen et al. (2021) demonstrated that both literacy and numeracy skills are positively influenced by a stimulating home learning environment, with early exposure to math concepts benefiting language development as well (Salminen et al., 2021). However, many parents lack awareness or confidence in teaching early math, which limits their effectiveness as co-educators. To address this gap, Elliott et al. (2021) suggest that tailored support and resources for families can enhance home numeracy practices and empower parents to contribute more meaningfully to their children's learning (Elliott et al., 2021).

3. Methodology

This research employed a descriptive-correlational design to explore the connection between parental involvement and the literacy and numeracy performance of preschool learners at Bulacao Community School. The descriptive part focused on measuring the extent of parental involvement and assessing students' proficiency in literacy and numeracy, while the correlational aspect examined the nature and strength of the association between these two variables (Creswell & Creswell, 2018; Fraenkel, Wallen, & Hyun, 2019). This research design was well-suited to the study's objectives, as it enabled the researchers to analyze existing conditions without altering any variables, thus preserving the validity and natural context of the findings (Best & Kahn, 2016). Two principal instruments were utilized for data collection: a modified version of the parental involvement questionnaire based on the model of Hashim et al. (2018), and the Department of Education's (DepEd) Literacy and Numeracy (LitNum) Assessment Tool. The questionnaire measured various dimensions of parental participation, such as involvement in school activities, learning support at home, and communication with educators, using a Likert scale for clarity and quantifiability. On the other hand, the LitNum tool evaluated children's abilities in areas such as letter recognition, phonological awareness, print understanding, number identification, and basic problem-solving aligned with the standards set by DepEd's Basic Education Learning Continuity Plan. Altogether, this methodological approach provided a reliable and context-specific evaluation of how parental involvement contributes to early learning outcomes in literacy and numeracy.

4. Results and Discussion

Table 1. Level of Parent's Involvement towards the School Activities of the Learners

S/N	Indicators	WM	SD	Verbal Description
1	I make sure that my child acts in accordance with his/her study schedule and study at home.	4.47	0.73	Very High
2	I make sure that my child has a comfortable space for learning.	4.50	0.77	Very High
3	I always talk to my child about his/her daily activities.	4.54	0.74	Very High
4	I guide my child when performing household chores.	4.50	0.77	Very High
5	I examined my child's homework.	4.44	0.79	Very High
6	I make sure that my child has enough reference books, stationery, and other educational necessities.	4.30	0.89	Very High
7	I make sure that a learning environment with less noise from the television/radio when my child studies his/her lessons.	4.24	0.91	Very High
8	I send my children to extra classes held at school.	3.99	0.94	High
9	I send my son to paid tuition.	3.22	1.11	Moderate
10	I always talk with my child about his/her problems.	4.39	0.86	Very High
	Aggregate Weighted Mean	4.26		
	Aggregate Standard Deviation		0.85	Very High

The data in Table 1 reveals that parents show a very high level of involvement in their children's school activities, with an overall weighted mean of 4.26 and a standard deviation of 0.85. Among the ten indicators, the highest mean score was for talking to their child about daily activities (4.54, SD = 0.74), followed closely by ensuring a comfortable space for learning (4.50, SD = 0.77) and guiding children with household chores (4.50, SD = 0.77). Parents also showed strong involvement in helping with homework (4.44, SD = 0.79) and discussing personal problems (4.39, SD = 0.86).

Even in providing educational necessities like books and stationery, the mean score was still very high (4.30, SD = 0.89), and minimizing distractions during study time scored 4.24 (SD = 0.91). However, involvement was slightly lower in sending children to extra classes at school (3.99, SD = 0.94) and even lower for enrolling them in paid tuition (3.22, SD = 1.11), which was rated only as "Moderate." Despite this, the overall results suggest that most parents are highly committed to supporting their children's education, especially in home-based learning and emotional support.

Table 2. Level of literacy skills of the learners in terms of Alphabet Knowledge

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

Table 2 shows that the majority of preschool learners at Mabolo Elementary School demonstrated an advanced level of alphabet knowledge. Out of 102 learners assessed, 101 learners (99.02%) were classified as Advanced, while only 1 learner (0.98%) fell into the Intermediate category. Notably, no learners were identified at the Beginner level. These results indicate that nearly all learners have already mastered letter recognition and related alphabet skills, suggesting strong foundational literacy development in this area.

Table 3. Level of literacy skills of the learners in terms of Phonological Awareness

Level	f	%
Advanced	88	86.27
Intermediate	13	12.75
Beginner	1	0.98
Total	102	100.00

Table 3 presents the learners' phonological awareness levels, showing that a large majority of preschoolers are performing at a high level. Specifically, 88 learners (86.27%) were categorized as Advanced, indicating strong skills in recognizing and manipulating sounds in spoken language. 13 learners (12.75%) were at the Intermediate level, showing developing phonological skills that may still need support. Only 1 learner (0.98%) was at the Beginner level. Overall, these results suggest that most learners have well-developed phonological awareness, which is a key predictor of future reading success.

Table 4. Level of literacy skills of the learners in terms of Book and Print knowledge

Level	f	%
Advanced	88	86.27
Intermediate	14	13.73
Beginner	0	0.00
Total	102	100.00

Table 4 shows the learners' performance in terms of book and print knowledge, which includes understanding how books work and recognizing basic print concepts. The data reveals that 88 learners (86.27%) achieved an Advanced level, while 14 learners (13.73%) were at the Intermediate level. Importantly, none of the learners fell into the Beginner category. These results indicate that nearly all preschoolers have a solid understanding of how to handle books, follow print direction, and identify parts of a book essential skills that support early reading development.

Table 5. 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 5 highlights the learners' numeracy skills specifically in the area of number knowledge. The results show that all 102 learners (100%) achieved an Advanced level, with no learners falling into the Intermediate or Beginner categories. This indicates that every preschool learner demonstrated strong abilities in identifying, recognizing, and possibly counting numbers, suggesting excellent foundational numeracy development in this domain.

Table 6. Level of numeracy skills of the learners in terms of Identifying Attributes

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

Table 6 presents the learners' numeracy skills in terms of identifying attributes, such as recognizing shapes, colors, sizes, and other distinguishing features. The data shows that all 102 learners (100%) reached the Advanced level, with none at the Intermediate or Beginner levels. This perfect score indicates that every child demonstrated strong skills in distinguishing and categorizing objects based on their attributes a key early math competency that supports classification, comparison, and logical thinking.

Table 7. 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 7 shows the learners' performance in terms of thinking skills, which typically involve problem-solving, reasoning, and applying logic in mathematical contexts. The results reveal that all 102 learners (100%) were rated at the Advanced level, with no learners categorized as Intermediate or Beginner. This suggests that every preschool learner at Mabolo Elementary School has demonstrated strong cognitive abilities in applying early numeracy concepts, indicating excellent readiness for more complex mathematical tasks in future grade levels.

Table 8. Test of relationship between the Parental Involvement and Literacy Skills of the Learners

Parental Involvement VS:	r-value	Strength of Correlation	p - value	Decision	Remarks
Alphabet Knowledge	-0.168	Negligible Negative	0.091	Do not reject Ho	Not Significant
Phonological Awareness	0.199*	Negligible Positive	0.045	Reject Ho	Significant
Book and Print Knowledge	-0.016	Negligible Negative	0.872	Do not reject Ho	Not Significant

*significant at p<0.05 (two-tailed)

Table 8 presents the relationship between parental involvement and the literacy skills of preschool learners, focusing on alphabet knowledge, phonological awareness, and book and print knowledge. The results show that for alphabet knowledge, there is a negligible negative correlation (r = -0.168) with a p-value of 0.091, indicating no significant relationship between the variables. Similarly, for book and print knowledge, the correlation is also negligible and negative (r = -0.016) with a p-value of 0.872, suggesting no meaningful connection. However, a different result was found for phonological awareness, where the correlation is negligibly positive (r = 0.199) but statistically significant with a p-value of 0.045. This implies that while the strength of the relationship is weak, greater parental involvement is still significantly linked to better phonological awareness in children. Overall, only phonological awareness showed a significant relationship with parental involvement, highlighting the importance of parental support specifically in the development of early sound-related literacy skills.

Table 9. Test of relationship between the Parental Involvement and Numeracy Skills of the Learners

Parental Involvement VS:	r-value	Strength of Correlation	p - value	Decision	Remarks
Numbers	0.007	Negligible Positive	0.941	Do not reject Ho	Not Significant
Identifying Attributes	0.011	Negligible Positive	0.915	Do not reject Ho	Not Significant
Thinking Skills	0.024	Negligible Positive	0.813	Do not reject Ho	Not Significant

*significant at p<0.05 (two-tailed)

Table 9 shows the relationship between parental involvement and the numeracy skills of preschool learners, specifically in the areas of numbers, identifying attributes, and thinking skills. The results indicate negligible positive correlations for all three numeracy domains. For number skills, the correlation is extremely weak (r = 0.007) with a p-value of 0.941, which is not statistically significant. Similarly, the correlation between parental involvement and identifying attributes is also negligible (r = 0.011) with a p-value of 0.915, and for thinking skills, the r-value is 0.024 with a p-value of 0.813. In all cases, the null hypothesis is not rejected, meaning there is no significant relationship between parental involvement and any of the assessed numeracy skills. These findings suggest that, within this sample, parental involvement did not significantly influence the numeracy performance of preschool learners.

5. Conclusion

Based on the results of the study, it can be concluded that parental involvement among the respondents is very high, especially in providing home-based support and emotional guidance. Most preschool learners showed strong literacy and numeracy skills, with nearly all performing at the advanced level in alphabet knowledge, numbers, identifying attributes, and thinking skills. However, the data also showed that parental involvement had no significant relationship with most literacy and numeracy skills, except for a weak but significant link with phonological awareness. This means that while parents are highly involved, their impact may be more noticeable in specific areas like sound recognition. Overall, strong academic performance was observed, but further support and training may help parents better support all areas of learning.

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