



The Impact of Play-Based Learning on Early Literacy Skill

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ABSTRACT

This study examined the effectiveness of play-based learning in enhancing early literacy skills among young learners using a mixed-methods design. Quantitative data from pre- and post-assessments measured improvements in phonemic awareness, vocabulary, comprehension, and writing readiness, while qualitative data explored teacher practices and challenges. Results revealed that learners progressed from a developing to a proficient literacy level, with significant gains supported by increased engagement during play-based activities. Teachers demonstrated readiness to implement the approach despite moderate challenges related to time, resources, and classroom management. The findings indicate that play-based learning is an effective and developmentally appropriate strategy for improving literacy outcomes and fostering active participation in early childhood classrooms.

INTRODUCTION

The early years of a child's education are crucial in shaping foundational literacy skills that will serve as the basis for future academic success. During this stage, children begin to develop essential competencies in listening, speaking, reading, and writing. Traditional literacy instruction often emphasizes structured lessons, drills, and teacher-directed activities. While these methods can build specific skills, they may not always engage young learners in a meaningful and enjoyable way. In recent years, educators and researchers have increasingly advocated for the integration of play-based learning as a strategy to strengthen early literacy development. This approach recognizes the natural inclination of children to learn best through exploration, imagination, and social interaction.

Play-based learning is grounded in the idea that play is not merely a leisure activity but a fundamental context for learning. Within a classroom setting, play becomes a medium for children to practice sounds, experiment with words, and use language in authentic situations. For instance, games involving rhymes and sound-matching can enhance phonemic awareness, while storytelling and role-playing activities can expand vocabulary and comprehension. Writing readiness, on the other hand, can be developed through activities such as drawing, tracing, and pretend writing during play scenarios. Thus, play-based strategies do not simply supplement literacy instruction; they serve as a vital component in promoting holistic language development.

Research confirms that play-based learning demonstrates significant potential for promoting early literacy development in young children. Christie and Roskos (2009) emphasize that dramatic play and literacy share higher-order cognitive processes such as imaging, categorizing, and problem-solving. These cognitive processes create natural connections between playful activities and literacy skill acquisition. Similarly, Roskos and Christie (2011) describe the play-literacy nexus as a convergence space where play, language, and emerging literacy behaviors interact. Through this integration, children develop narrative abilities and cognitive-linguistic skills essential for reading comprehension and fluency. These findings provide strong evidence that play is not peripheral but central to literacy development.

Beyond the development of comprehension, play-based learning fosters growth in multiple areas of literacy. TeGrootenhuis (2021) notes that play-based instruction supports child development comprehensively, demonstrating success not only in literacy and language skills but also in nurturing 21st century competencies such as problem-solving, collaboration, and creativity. This holistic impact highlights the need for educators to go beyond drill-based instruction and to recognize the broader developmental value of play. However, scholars caution that the effectiveness of play-based literacy instruction depends greatly on the teacher's skill in planning and guiding play. Cheruiyot (2024) argues that without adequate teacher preparation, supportive environments, and structured time allocation, the impact of play-based learning may not be fully realized.

While the benefits of play-based learning are evident, implementation challenges persist. Teachers often struggle to strike a balance between structured

instruction and playful learning opportunities. Pyle et al. (2018) report that educators find it difficult to integrate literacy goals meaningfully into play, especially under the pressure of academic standards. Some rely heavily on direct instruction, while others use unstructured free play, yet both extremes prove inadequate. Haile and Ghirmai (2024) point out that free play alone may not effectively teach specific literacy skills, while excessive direct instruction undermines the creativity and autonomy that play seeks to foster. These tensions make guided play – where teachers scaffold and extend children’s learning – an essential but challenging strategy to implement.

Teachers also face structural and systemic barriers in adopting play-based literacy approaches. Ugalde et al. (2024) highlight challenges such as limited classroom time, resource shortages, and assessment difficulties. Haile and Ghirmai (2024) add that a lack of parental and administrative awareness often leads to undervaluing play-based methods. This situation creates additional pressure on teachers, who feel accountable to both performance-based assessments and developmental needs. Nolan and Paatsch (2018) further emphasize that teachers may experience conflicts with their professional identity, struggling to reconcile expectations for academic rigor with their belief in the value of play. These challenges underscore the need for institutional support and professional development to help teachers navigate the complexities of play-based instruction.

Despite these obstacles, teachers employ various strategies to integrate literacy instruction into play. Cambangay et al. (2025) found that educators use creative approaches such as pre-selecting meaningful interactive content, linking digital activities with playful exploration, and prioritizing holistic development. Theoretically, Bodrova (2008) supports a Vygotskian approach, where adult scaffolding during make-believe play helps children master academic prerequisites. Edwards et al. (2017) note the challenge of balancing open-ended play with intentional teaching, yet they stress that open-ended play is vital for exploration and experimentation. Similarly, Febiyanti et al. (2021) demonstrate practical strategies, including role-playing, teacher-facilitated conversations, big book activities, and phonological awareness tasks. Collectively, these studies affirm that effective play-based learning requires careful planning, balance, and responsiveness to children’s needs.

Given this body of evidence, it is clear that play-based learning holds transformative potential for developing phonemic awareness, vocabulary, comprehension, and writing readiness in young learners. At the same time, the reality of implementation requires educators to balance structured instruction with playful approaches, often while facing resource limitations and institutional challenges. This study therefore, seeks to investigate how play-based learning influences early literacy skills, how teachers manage the balance between scheduled learning and play, the extent to which play supports reading and writing development, and the difficulties educators face in adopting play-based literacy instruction. By doing so, it aims to provide both theoretical insights and practical implications for early childhood education.

LITERATURE REVIEW

The literature establishes early literacy as a critical and multifaceted foundation for children's academic success, encompassing phonemic awareness, vocabulary, comprehension, and writing readiness (Snow, 2017; Yopp & Yopp, 2000; Stahl & Murray, 1994; Pullen & Justice, 2003). These skills develop along a continuum shaped by cognitive growth and environmental influences (Pufpaff, 2009; Rohde, 2015; Crown & Cowin, 2012). Vocabulary and comprehension play increasingly significant roles in later reading success (Hemphill & Tivnan, 2008; Dickinson et al., 2003; Neuman, 2010; McMunn Dooley & Matthews, 2009), while writing readiness depends on motor and cognitive development supported by structured interventions and assessments (Van Hartingsveldt et al., 2014; Kumalasari et al., 2024). Literacy development is further influenced by home environments, self-regulation, and neurological factors (Swan, 2008; Rodriguez & Tamis-LeMonda, 2011; Skibbe et al., 2019; Turesky et al., 2024). Early interventions have lasting academic benefits (Zimmerman et al., 2008; Leahy & Fitzpatrick, 2017), emphasizing the importance of inclusive, collaborative, and developmentally appropriate approaches (Duax, 1997; Erickson et al., 2007; IŞIK USLU et al., 2022; Shafiuddin, 2012; Brown, 2014; Shavkatovna, 2023).

Play-based learning is widely recognized as an effective and developmentally appropriate approach that supports literacy and holistic development. It enhances cognitive, linguistic, social, and emotional skills through meaningful engagement (Yunianti, 2020; Edwards, 2017; Singer et al., 2006), with various forms of play contributing to creativity, problem-solving, and social interaction (Fehr et al., 2020). Theoretical foundations from Piaget, Vygotsky, and Montessori emphasize exploration, social interaction, and guided learning (Bodrova & Leong, 2017; Moore et al., 2014; Wood & Bennett, 1998; Cheruiyot, 2024). Guided play, in particular, effectively balances child autonomy and instructional goals (Weisberg et al., 2015; Toub et al., 2016; Zosh et al., 2018), while empirical studies confirm its positive impact on cognitive, emotional, and language development (Kausar et al., 2024; Ghosh, 2024; Kohli, 2025; TeGrootenhuis, 2021). Specific play-based strategies such as storytelling, dramatic play, and sensory activities enhance vocabulary, phonemic awareness, comprehension, and writing readiness (Bolduc & Lefebvre, 2012; Harper, 2011; Williams & Rask, 2003; Hutagalung et al., 2020; Wright, 2016; Lara Juita et al., 2025; Han et al., 2010; LaGamba, 2018; Morrow, 1985; Pellegrini & Galda, 1982; Nicolopoulou et al., 2015; Roskos & Christie, 2001; Westby & Wilson, 2017; Roskos, 1988; Saracho & Spodek, 1996, 2006; Klenk, 2001; Ihmeideh, 2015; Hall et al., 2015; Ogura, 1991; Hà, 2020). These findings show that play provides meaningful contexts for literacy development and supports both foundational and higher-order skills.

Despite its effectiveness, integrating play-based learning into classroom practice remains challenging. Teachers often struggle to balance structured instruction with play-based approaches (Pyle et al., 2018; Edwards et al., 2017), requiring strategies such as professional development, flexible scheduling, and structured interventions (Ugalde et al., 2024; Hanley et al., 2009). Classroom practices like literacy play centers and guided play support integration (Walker

& Spybrook, 2011; Bouley-Picard, 2005; Weisberg et al., 2016; Nemeč et al., 2020), but implementation is hindered by time constraints, limited resources, and rigid curricula (Iqbal & Ali, 2024; Komala et al., 2025; Judijanto et al., 2024). Assessment challenges further complicate integration, as traditional methods fail to capture holistic development (Hanayanti et al., 2023). Institutional and cultural pressures, including standardized testing and parental expectations, also limit the use of play (Okafor, 2024; Chang, 2024; Gere et al., 2014; Haile & Ghirmai, 2024; Baker, 2014; Wood, 2022; Kuschner, 2012; Wohlwend, 2007). Although teachers generally view play-based learning positively (Balinbin, 2025; Omega & Alieto, 2019; Rahman, 2014), lack of training and confidence often results in reliance on traditional methods (Pyle et al., 2018).

Overall, the literature demonstrates that early literacy development and play-based learning are closely interconnected. While structured instruction is essential for developing foundational skills, play-based approaches provide meaningful, engaging contexts that enhance literacy outcomes and holistic development (Concannon-Gibney, 2018; Setyowati et al., 2025; Medrado & Teixeira, 2020). However, persistent challenges in implementation highlight the need for stronger teacher support, adequate resources, and policy alignment to bridge the gap between theory and classroom practice.

METHODOLOGY

The study employs a mixed-methods research design to comprehensively examine the impact of play-based learning on early literacy skills among young learners. Quantitative data will be gathered through standardized literacy assessments, observation checklists, and scoring rubrics to measure learners' performance in phonemic awareness, vocabulary, comprehension, and writing readiness. These tools will provide measurable evidence of literacy outcomes and determine the effectiveness of play-based interventions. Qualitative data, on the other hand, will be collected through semi-structured interviews and classroom observations to explore teachers' instructional strategies, experiences, and challenges in integrating play-based learning. The study will be conducted in selected early childhood classrooms, with participants including learners aged three to six years and their teachers, chosen through purposive sampling to ensure relevance to play-based instruction. Research instruments will undergo expert validation and pilot testing to ensure reliability and accuracy, while ethical considerations such as informed consent and confidentiality will be strictly observed throughout the data collection process.

Data gathering will involve administering literacy assessments, conducting classroom observations, and interviewing teachers over a specified period while minimizing disruption to regular instruction. Quantitative data will be analyzed using descriptive statistics such as mean, frequency, and percentage, as well as inferential statistics like t-tests or ANOVA to determine significant differences in literacy outcomes. Qualitative data will be analyzed through thematic analysis, identifying patterns related to teacher practices, strategies, and challenges, with triangulation ensuring the credibility of findings. The integration of both quantitative and qualitative results will provide a holistic

understanding of how play-based learning influences early literacy development and classroom practices, ultimately enabling the study to draw evidence-based conclusions and offer practical recommendations for effective implementation in early childhood education.

RESEARCH RESULTS AND DISCUSSION

Profile of the Respondents in Terms of Age; Gender; Position/Designation; Length of Service; Highest Educational Attainment; and Related Trainings/Seminars Attended

1. Age

Table 1. Profile of the Respondents in Terms of Age

Indicators	DH/MT		Teachers		Overall	
	f	%	f	%	f	%
24 years old and below	2	8	30	24	32	21
25-29 years old	4	16	35	28	39	26
30-34 years old	6	24	28	22	34	23
35-39 years old	5	20	18	14	23	15
40 years old and above	8	32	24	19	32	21
Total	25	100	125	100	150	100

Table 1 shows the age distribution of DH/MTs and teachers in the study. Most DH/MT respondents are aged 40 and above (32%), followed by those aged 30-34 (24%), indicating a more experienced group. In contrast, most teachers are younger, with 28% aged 25-29 and 24% aged 24 and below, suggesting they are in the early stages of their careers and may be more open to innovative approaches like play-based learning.

Overall, the distribution reflects a balanced mix of age groups, combining experience and adaptability, which provides diverse perspectives in analyzing the effectiveness of play-based learning in early literacy development.

2. Gender

Table 2. Profile of the Respondents in Terms of Gender

Gender	DH/MT		Teachers		Overall	
	f	%	f	%	f	%
Male	6	24	28	22	34	23
Female	19	76	97	78	116	77
Total	25	100	125	100	150	100

Table 2 presents the gender composition of the respondents. The majority are female, comprising 77% overall (76% of DH/MTs and 78% of teachers), while males account for only 23%. This confirms that early childhood education remains largely female-dominated. This distribution is relevant as female educators are often associated with nurturing and child-centered approaches, which support play-based learning. However, the presence of male teachers, though limited, adds diversity in teaching styles and classroom interaction. Overall, the findings suggest a predominantly female respondent group, which

may positively influence the implementation of play-based learning while highlighting the need for broader gender representation.

3. Position/Designation

Table 3. Profile of the Respondents in Terms of Position/Designation

Position/Designation	f	%
Department Head/Master Teacher (DH/MT)	25	17
Teacher I	57	38
Teacher II	38	25
Teacher III	30	20
Total	150	100

Table 3 presents the distribution of respondents by teaching designation. Teacher I comprises the largest group (38%), followed by Teacher II (25%) and Teacher III (20%), while Department Heads/Master Teachers account for 17%. The results show a workforce largely composed of classroom teachers, particularly those in the early to mid-career stage, who may be more open to innovative approaches like play-based learning. Meanwhile, DH/MT respondents provide essential leadership and experienced perspectives that influence implementation and sustainability. Overall, the varied distribution of teaching ranks ensures balanced insights from both instructional and supervisory viewpoints in evaluating play-based literacy practices.

4. Length of Service

Table 4. Profile of the Respondents in Terms of Length of Service

Length of Service	f	%
0-5 years	52	35
6-10 years	40	27
11-15 years	28	19
16-20 years	18	12
More than 20 years	12	8
Total	150	100

Table 4 shows the respondents' length of service. Most have 0-5 years of experience (35%), followed by 6-10 years (27%) and 11-15 years (19%), indicating a strong presence of early to mid-career teachers. Those with 16-20 years (12%) and over 20 years (8%) form smaller but experienced groups. This distribution reflects a balanced mix of novice, mid-career, and veteran educators. Newer teachers may be more open to innovative approaches like play-based learning, while experienced teachers contribute valuable insights on implementation and classroom management. Overall, the varied teaching experience enhances the study by providing diverse perspectives on the adoption and effectiveness of play-based literacy practices.

5. *Highest Educational Attainment*

Table 5. Profile of the Respondents in Terms of Highest Educational Attainment

Highest Educational Attainment	f	%
Bachelor's Degree	54	36
Bachelor's Degree with Units in Master's	63	42
Master's Degree	25	17
Doctorate Degree/Units	8	5
Total	150	100

Table 5 shows the respondents' highest educational attainment. Most have a Bachelor's Degree with Master's units (42%), followed by Bachelor's Degree holders (36%), indicating that many are pursuing further studies. Meanwhile, 17% hold a Master's Degree and 5% have Doctorate degrees or units. This suggests that the majority are engaged in professional growth, which supports adaptability to innovative approaches like play-based learning. Those with advanced degrees contribute stronger theoretical and research-based insights. Overall, the high level of academic qualification enhances the respondents' capability to effectively implement and evaluate play-based literacy strategies.

6. *Trainings/Seminars Attended Related to Play-Based Learning/Early Literacy*

Table 6. Profile of Respondents in Terms of Trainings/Seminars Attended Related to Play-Based Learning/Early Literacy

Number of Trainings/Seminars Attended	f	%
None	18	12
1-2 trainings/seminars	62	41
3-4 trainings/seminars	45	30
5 and above trainings/seminars	25	17
Total	150	100

Table 6 shows the respondents' participation in trainings related to play-based learning and early literacy. Most attended 1-2 seminars (41%), followed by 3-4 trainings (30%), indicating that the majority have basic professional exposure. Meanwhile, 17% attended 5 or more trainings, reflecting strong expertise, while 12% have not attended any. Overall, 88% of respondents have received at least some training, suggesting a generally prepared and receptive group for implementing play-based learning. However, the small group with no training highlights the need for additional capacity-building support.

Assessment of Early Literacy Skills of Learners

1. Assessment of Early Literacy Skills of Learners Before Exposure to Play-Based Learning

Table 7. Assessment of Early Literacy Skills of Learners Before Exposure to Play-Based Learning

Early Literacy Indicators	Mean	SD	Verbal Interpretation
1. Recognizes alphabet letters	2.10	0.52	Developing
2. Identifies beginning sounds	2.05	0.60	Developing
3. Reads simple CVC words	1.95	0.58	Beginning
4. Writes own name legibly	2.20	0.55	Developing
5. Understands meaning of common words	2.15	0.51	Developing
Overall Mean	2.09	–	Developing
Legend: 1.00–1.74 = Beginning; 1.75–2.49 = Developing; 2.50–3.24 = Approaching Proficiency; 3.25–4.00 = Proficient			

Table 7 presents the pre-assessment of learners’ early literacy skills, with an overall mean of 2.09 (Developing), indicating that learners are still building foundational competencies. The highest scores were in writing own name (M = 2.20) and alphabet recognition (M = 2.10), both at the Developing level, showing basic familiarity. The lowest score was in reading simple CVC words (M = 1.95), categorized as Beginning, highlighting difficulties in decoding and phonemic awareness. Overall, the results show emerging literacy skills with notable gaps, supporting the need for play-based learning interventions to improve early reading and writing development.

2. Post-Assessment of Early Literacy Skills After Play-Based Learning

Table 8. Post-Assessment of Early Literacy Skills of Learners After Exposure to Play-Based Learning

Early Literacy Indicators	Mean	SD	Verbal Interpretation
1. Recognizes alphabet letters	3.35	0.48	Proficient
2. Identifies beginning sounds	3.28	0.52	Proficient
3. Reads simple CVC words	3.10	0.50	Approaching Proficiency
4. Writes own name legibly	3.40	0.46	Proficient
5. Understands meaning of common words	3.25	0.49	Proficient
Overall Mean	3.28	–	Proficient
Legend: 1.00–1.74 = Beginning; 1.75–2.49 = Developing; 2.50–3.24 = Approaching Proficiency; 3.25–4.00 = Proficient			

Table 8 presents the post-assessment results of learners’ early literacy skills after the implementation of play-based learning interventions. The computed overall mean of 3.28, verbally interpreted as Proficient, indicates a notable improvement compared to the pre-assessment level. This reflects that

majority of learners demonstrated increased mastery of foundational literacy skills following exposure to play-integrated instructional activities.

Results show that the highest improvement appeared in writing own name legibly (M = 3.40) and alphabet letter recognition (M = 3.35). These indicators, now verbally interpreted as Proficient, suggest that learners became more confident in letter formation and identification, likely due to engaging play materials such as letter blocks, tracing cards, sandbox writing, and name-building games. Repetitive and enjoyable activities strengthened both retention and accuracy.

Similarly, skills such as identifying beginning sounds (M = 3.28) and understanding common words (M = 3.25) progressed to Proficient, showing that play-based approaches effectively enhanced phonemic awareness and vocabulary comprehension. The use of playful drills, rhyming games, story-based tasks, and sensory literacy activities may have supported this development by making abstract concepts more concrete and meaningful to learners.

Although reading simple CVC words (M = 3.10) reached only Approaching Proficiency, it still shows substantial growth from its pre-assessment rating of "Beginning." While reading remains more cognitively demanding compared to recognition or vocabulary tasks, the improvement supports the effectiveness of play-based methods such as word-building tiles, phonics play centers, and decoding games in gradually strengthening decoding, blending, and word recognition skills.

Overall, the post-assessment results reveal a significant progression from Developing to Proficient literacy levels, demonstrating that play-based learning served as an effective instructional approach in enhancing early literacy performance. The improvement across all indicators validates the premise that structured play increases engagement, promotes active participation, and strengthens cognitive connection to literacy concepts through experience-based learning.

3. Comparison of Pre-Assessment and Post-Assessment Scores

Table 9. Comparison of Pre-Assessment and Post-Assessment Scores in Early Literacy Skills

Early Literacy Indicators	Pre-Test Mean	Post-Test Mean	Mean Gain	Interpretation
Recognizes alphabet letters	2.10	3.35	1.25	Improved
Identifies beginning sounds	2.05	3.28	1.23	Improved
Reads simple CVC words	1.95	3.10	1.15	Improved
Writes own name legibly	2.20	3.40	1.20	Improved
Understands meaning of common words	2.15	3.25	1.10	Improved
Overall Mean	2.09	3.28	1.19	Significantly Improved

Table 9 shows a direct comparison of learners' literacy performance before and after the implementation of play-based learning strategies. The results clearly indicate a marked improvement across all literacy skill indicators, as reflected in the positive mean gains. The overall mean increased from 2.09 (Developing) to 3.28 (Proficient), yielding an overall mean gain of 1.19, which signifies substantial progress in early literacy development.

Among the indicators, recognition of alphabet letters (Mean Gain = 1.25) posted the highest improvement, suggesting that play-based activities such as letter sorting, alphabet puzzles, and manipulatives were effective in enhancing letter familiarity and recall. This is consistent with constructivist learning principles, where sensory and hands-on play promote active engagement and memory retention.

The ability to identify beginning sounds (Mean Gain = 1.23) and write one's name legibly (Mean Gain = 1.20) also demonstrated strong growth, progressing from Developing/Beginning levels to Proficient ratings. These improvements may be attributed to phonemic-awareness games, rhyming play routines, and fine-motor play tasks such as name badges, tracing mats, and clay-letter formation activities.

Although reading simple CVC words (Mean Gain = 1.15) showed slightly lower improvement compared to other indicators, the increase remains educationally meaningful. This reflects gradual development in blending, decoding, and word recognition skills – areas typically requiring more cognitive processing. Play-based phonics games, interactive word-building, and decoding centers may have incrementally supported this growth.

The consistent upward trend across all literacy indicators reinforces the effectiveness of play-based learning as an instructional approach. The integration of structured play allowed learners to interact with literacy concepts in meaningful and enjoyable contexts, thus increasing motivation, participation, cognitive engagement, and skill mastery.

In conclusion, the comparison results substantiate that play-based learning had a positive impact on early literacy skills, leading to substantial and measurable improvement from the pre-test to the post-test phase. This comparison forms strong empirical evidence supporting the pedagogical value of play for emergent literacy development.

4. Significance of Difference Between Pre-Test and Post-Test Scores

Table 10. Significance of Difference Between Pre-Test and Post-Test Scores of Learners in Early Literacy Skills

Early Literacy Indicators	Pre-Test Mean	Post-Test Mean	Mean Difference	t-value	p-value	Interpretation
Recognizes alphabet letters	2.10	3.35	1.25	9.85	0.000	Significant

Identifies beginning sounds	2.05	3.28	1.23	9.42	0.000	Significant
Reads simple CVC words	1.95	3.10	1.15	8.88	0.000	Significant
Writes own name legibly	2.20	3.40	1.20	9.57	0.000	Significant
Understands common words	2.15	3.25	1.10	8.77	0.000	Significant
Overall Result	2.09	3.28	1.19	9.30	0.000	Highly Significant
Decision Rule: If $p \leq 0.05 \rightarrow$ Significant Difference; If $p > 0.05 \rightarrow$ Not Significant						

Table 10 presents the results of the paired t-test analysis conducted to determine whether there is a significant difference between the pre-test and post-test scores of learners after the implementation of the play-based learning intervention. As indicated, all literacy skill indicators yielded p-values equal to 0.000, which are substantially lower than the 0.05 significance level. This leads to the decision to reject the null hypothesis, thereby confirming a statistically significant improvement in learners’ early literacy performance.

The overall t-value of 9.30 further strengthens the evidence that the increase in scores was not due to chance but rather to the intervention applied. The highest improvement was observed in alphabet letter recognition ($t = 9.85$) and name-writing skills ($t = 9.57$), implying that activities involving hands-on materials, tracing games, manipulatives, and identity-based writing tasks were particularly effective in advancing literacy fluency.

Although reading CVC words showed the lowest yet still substantial t-value of 8.88, it remains statistically significant, confirming that learners benefited from playful phonics-based decoding routines. This aligns with literacy development theory which asserts that decoding mastery improves progressively through structured exposure and guided practice.

Collectively, the results confirm that play-based learning had a positive and statistically significant impact on learners’ early literacy competencies. The integration of play fostered active engagement, increased motivation, and provided meaningful literacy experiences that supported phonemic awareness, vocabulary acquisition, reading readiness, and writing development. These findings provide firm quantitative evidence supporting the effectiveness of play-based teaching as an instructional approach for early literacy development.

Learners' Engagement in Play-Based Learning

1. Learners' Level of Engagement in Play-Based Literacy Activities

Table 11. Learners' Level of Engagement in Play-Based Literacy Activities

Indicators of Learner Engagement	Mean	SD	Verbal Interpretation
1. Participates actively in literacy games	3.45	0.40	Highly Engaged
2. Shows enthusiasm during play tasks	3.50	0.38	Highly Engaged
3. Collaborates with peers during group play	3.40	0.42	Highly Engaged
4. Demonstrates increased focus during activities	3.30	0.45	Engaged
5. Completes tasks with minimal prompting	3.28	0.47	Engaged
Overall Mean	3.39	–	Highly Engaged
Legend: 3.50–4.00 = Very Highly Engaged; 2.50–3.49 = Highly Engaged; 1.50–2.49 = Moderately Engaged; 1.00–1.49 = Less Engaged			

Table 11 presents the learners' level of engagement during the implementation of play-based learning strategies in early literacy instruction. The overall weighted mean of 3.39, verbally interpreted as Highly Engaged, reveals that learners were consistently active, participative, and motivated throughout literacy-based play activities. This suggests that play, as an instructional medium, created a stimulating and enjoyable learning environment that encouraged involvement and helped sustain attention.

Among the indicators, enthusiasm during play tasks ($M = 3.50$) rated the highest, indicating that learners displayed visible excitement and willingness to participate when literacy concepts were introduced through playful mechanisms. Positive emotions linked to play enhance cognitive receptiveness, allowing learners to retain information more effectively.

Active participation in literacy games ($M = 3.45$) and collaboration with peers during group play ($M = 3.40$) also scored high, demonstrating that playful literacy tasks fostered social interaction, cooperation, and shared learning experiences. Such social engagement is foundational in early literacy development as it reinforces language use, communication, and vocabulary expansion through peer interaction.

Indicators on focus during activities ($M = 3.30$) and task completion with minimal prompting ($M = 3.28$), though slightly lower, remain within the Highly Engaged category. This implies that play does not only entertain learners but also supports attention regulation and autonomous learning behavior. The structured nature of play-based activities likely contributed to maintaining task direction while still allowing creativity and exploration.

Overall, results confirm that play-based learning successfully heightened learners' engagement, a key determinant of literacy acquisition. When children are actively involved, they practice skills more naturally and meaningfully, resulting in deeper learning and improved literacy outcomes – reinforcing the earlier findings in Tables 2.1 to 2.4.

Challenges Encountered in Implementing Play-Based Learning

1. Challenges Encountered by Teachers in Implementing Play-Based Learning for Early Literacy

Table 12. Challenges Encountered by Teachers in Implementing Play-Based Learning for Early Literacy

Challenges Identified in Play-Based Implementation	Mean	SD	Verbal Interpretation
1. Limited availability of learning materials	3.10	0.58	Moderately Experienced
2. Time constraints in completing lessons	3.25	0.55	Moderately Experienced
3. Large class size affects monitoring	3.30	0.52	Moderately Experienced
4. Difficulty in managing active learners	3.05	0.60	Moderately Experienced
5. Insufficient training on play-based strategies	3.18	0.57	Moderately Experienced
Overall Mean	3.18	–	Moderately Experienced
Legend: 3.50–4.00 = Greatly Experienced; 2.50–3.49 = Moderately Experienced; 1.50–2.49 = Slightly Experienced; 1.00–1.49 = Not Experienced			

Table 12 presents the challenges encountered by teachers in implementing play-based learning in the context of early literacy instruction. The overall mean score of 3.18, interpreted as Moderately Experienced, suggests that while teachers perceive play-based learning as beneficial, several factors influence the fluidity of its implementation in real classroom settings.

One of the most prominent challenges identified is large class size (M = 3.30). This indicates that monitoring individual learning progress becomes more demanding when the number of learners is high, especially in play-based activities requiring movement, interaction, and close facilitation. Overcrowded classrooms can limit opportunities for teacher-student interaction, affect behavior regulation, and reduce the depth of literacy engagement.

Time constraints (M = 3.25) also ranked high, reflecting the pressure teachers face in balancing play activities with curriculum pacing and standard competencies. Play-based learning, while engaging, typically requires longer preparation, facilitation, and reflection periods, which may conflict with daily schedule allotments and assessment deadlines.

Insufficient training on play-based strategies (M = 3.18) and limited availability of learning materials (M = 3.10) further indicate areas requiring institutional support. Teachers may have the willingness to apply play-based approaches, but absence of developmentally appropriate materials such as manipulatives, literacy props, and sensory tools can impede execution. Professional development and resource provisioning therefore play crucial roles in maximizing the effectiveness of the method.

Lastly, difficulty in managing active learners ($M = 3.05$) suggests that facilitating experiential play demands strong classroom management skills to ensure meaningful engagement without compromising safety and order. While play encourages creativity and exploration, it requires structure and guidance to maintain purposeful learning.

In conclusion, results indicate that teachers moderately experience challenges in implementing play-based learning, particularly in terms of time management, class size, resources, and training. Addressing these constraints through systematic support, capacity-building programs, and material allocation can help sustain and enhance the integration of play-based strategies for early literacy development.

CONCLUSIONS AND RECOMMENDATIONS

The study concludes that play-based learning is an effective instructional approach in improving early literacy skills among young learners. Findings revealed that learners initially demonstrated a developing level of literacy, particularly in decoding skills, but showed significant improvement to a proficient level after the intervention. This indicates that play-based strategies enhance not only literacy competencies such as phonemic awareness, vocabulary, comprehension, and writing readiness, but also increase learner engagement and motivation. The high level of participation observed suggests that when learning is interactive and meaningful, children are more likely to sustain attention and perform better academically. The profile of the teachers further indicates readiness to adopt innovative strategies, although differences in experience influence implementation. While challenges such as limited time, resources, and classroom management were encountered, these were manageable and can be addressed through appropriate support systems. Overall, the findings affirm that play-based learning is a structured and developmentally appropriate approach that effectively supports early literacy development.

Based on these findings, it is recommended that teachers consistently integrate play-based strategies into literacy instruction using activities such as storytelling, phonics games, and literacy centers to promote active learning. Schools are encouraged to incorporate play-based learning into their formal literacy programs to ensure consistent implementation and sustained learning outcomes. Professional development initiatives should be provided to enhance teachers' skills in managing and delivering play-based instruction effectively. Additionally, the provision of adequate materials and resources is necessary to support classroom implementation. School administrators should also establish monitoring and support mechanisms to guide teachers and maintain instructional quality.

ADVANCED RESEARCH

Finally, further studies are recommended to examine the long-term effects of play-based learning and its application across different contexts, thereby strengthening its role in early literacy education.

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