

# A Study to Assess the Effectiveness of Play-Based Learning and Social Development Among Preschool Children at Selected School of Sasaram

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**Abstract—Background:** Early childhood is a foundational period in human development where cognitive, emotion, and social competencies begin to form. One of the most natural and effective methods for engaging young learners is play-based learning, which integrates play into educational experiences to foster holistic growth. This approach not only enhances academic readiness but also supports social development, including communication, cooperation, empathy, and problem-solving skills. According to Vygotsky's sociocultural theory, play serves as a critical context for cognitive and social development, enabling children to internalize social norms and practice roles and interactions in a safe and imaginative environment (Vygotsky, 1978). In preschool settings, play provides opportunities for children to interact, negotiate, share, and succeed in future educational environments.

Moreover, studies have shown that structured and unstructured play activities help improve self-regulation, language development, and peer relationships early learners. As global education systems increasingly emphasize academic outcomes, it is important to ensure that social-emotional learning is not neglected, especially in early childhood settings where these skills are most effectively developed. The early years of childhood are universally acknowledged as the most crucial phase for overall human development. During this formative stage, children acquire essential physical, cognitive, emotional, and social skills that shape their personalities and lifelong learning trajectories. Among these developmental domains, social development—the ability to interact positively with peers, form relationships, cooperate, share, resolve conflicts, and express emotions appropriately—is especially significant in preparing children for formal schooling and broader societal integration. In recent decades, there has been growing recognition of play-based learning (PBL) as a powerful

and developmentally appropriate approach to fostering young children's holistic development, particularly their social competencies.

**Objectives:** To find association between learning and social

development and play-based uses among pre-school children. To find out the association social development related to the play-based assessment with selected demographic variables and social development.

**Methodology:** The research approach was descriptive approach and research design is one group. The study was conducted on preschool children at selected school of Sasaram. Randomized sample technique adopts. Number of samples is 60 who uses the play-based assessment frequently. Data collection was done by the survey by the researcher. Data was analyzed with descriptive and inferential statistics came up with following findings

**Result:** The result show of the study is there 60 samples in pre-test 37% are poor development, 50% are fair development and 13.3% are good development after than post-test 10% are poor development, 70% are fair development and 20% are good development. Statically there is no significant association was found

**Recommendation:** The finding of the present study can be used as guide of future research. Interventional study can be undertaken to improve the learning and social development. A study can be conducted in preventing aspect of dull. To make the recommendation to advice the play-based learning of pre-school children.

**Conclusion:** The present study was aimed at assessing the level of learning and social development among pre-school children and its consequences. This shows that variables had influence level of social development in the study.

## I. INTRODUCTION

Early children are a critical period for cognitive, emotion, and development. During this stage, children begin to acquire foundation skill that shape their future learning and interaction. Play-based learning has emerged as a powerful education approach in preschool settings, fostering a child – centered environment where exploration, imagination, and interaction and central to learning. Social development, a key component of early childhood education, involves learning to interact positively with peers, manage emotions, and develop empathy and communication skills. Play provides a natural context for children to build these competencies, as it facilitates cooperative behavior, conflict resolution, and the development of social norms.

The study aims to assess the effectiveness of play-based learning in promoting social development among preschool children. By examining how structured and unstructured play activities influence children, and form relationship, this research seeks to provide insight into best practices for fostering development in early childhood education. Play-based learning has emerged as a pivotal approach in early childhood education, emphasizing the importance of play as a fundamental medium through which young children engage with the world around them. This approach is not merely about providing children with time to play; it encompasses a well-structured methodology that integrates play into the learning process to enhance various developmental domains. The significance of this educational paradigm is supported by extensive research highlighting its contributions to cognitive, social, and emotional growth (Fisher, 1992; Johnson, 2005).

The current body of literature suggests that play is integral to children’s development and can be harnessed to create rich learning environments that support holistic development. This introduction examines the effectiveness of several play-based learning strategies—Role Play and Dramatic Play, Sensory Play, Storytelling and Puppet Play, Loose Parts Play, and Outdoor Play and Nature Exploration—in fostering holistic development in preschool children. Role-Play and Dramatic Play are some of the most identified strategies inside play-based getting to know. These activities allow youngsters to interact in imaginative eventualities, allowing them to discover one-of-a-kind roles and perspectives. Research shows

that such play notably enhances social abilities, as children have to negotiate roles, percentage thoughts, and collaborate with peers (Bergen, 2002). By way of accomplishing function play, children can test with social norms and expectancies that is vital for his or her expertise of complex social dynamics.

## NEED OF STUDY

Early children are a crucial phase for the development of cognitive, emotional, and social skills. Among various pedagogical approaches, play-based learning has gained recognition for its potential to foster holistic development in young children. This approach uses play as a medium to promote learning in a natural and engaging environment. Despite its growing popularity, there is a lack of robust empirical evidence supporting its effectiveness, especially in relation to social development among preschool children.

Social development during early childhood includes the ability to cooperate, communicate effectively, resolve conflicts, and develop empathy – skills that are essential for later academic and life success. Play, especially cooperative and imaginative play, provides children with opportunities to practice these skills in meaningful context. However, in many preschool settings, academic readiness is often prioritized over social-emotional learning, potentially undermining children’s broader developmental needs. Therefore, there is a pressing need to conduct systematic studies to:

- 1.Examine the effectiveness of play-based learning in enhancing preschool children’s social skills.
- 2.Provide evidence-based insight to guide educators and curriculum developers.

Early childhood is a critical period in human life, laying the foundation for lifelong learning, behavior, and health. During this developmental window—particularly between the ages of 3 to 6—children undergo rapid growth across multiple domains including physical, emotional, cognitive, and social development. Among these, social development plays a pivotal role in shaping a child’s ability to interact effectively with peers, build relationships, communicate needs, regulate emotions, and adapt to social norms. It is within this context that play-based learning emerges as a powerful and natural medium through which social competencies can be nurtured. However, despite its recognized importance, structured implementation of play-based strategies remains

limited in many early childhood education settings, especially in countries like India. This necessitates an in-depth and focused study to assess the effectiveness of play-based learning on social development among preschool children. Social development involves learning the values, knowledge, and skills that enable children to relate to others effectively and contribute positively to society. In the preschool years, social development is foundational to school readiness and later academic and life success. Children with well-developed social skills are more likely to demonstrate empathy, cooperate with peers, express emotions constructively, resolve conflicts, and build friendships. These behaviors, in turn, lead to greater confidence, reduced anxiety, and increased classroom participation.

#### TITLE OF STUDY

A study to assess the effectiveness of play-based learning and social development among preschool children at selected school of Sasaram.

#### OBJECTIVES.

- 1.To examine the impact play-based learning on the cognitive development of preschool children.
- 2.To assess the influence of play-based activities on language development in preschool- aged children.
- 3.To evaluate the role of play-based learning in enhancing social interaction among preschoolers.
- 4.To determine the effect of play-based learning on emotional regulation and self- expression in preschoolers.
- 5.To analyze the relationship between structured and unstructured play activities and social skill development.
- 6.To measure the effectiveness of play-based learning in improving problem-solving and critical thinking skills in preschool children.

#### HYPOTHESIS

- Play-based learning significantly improves cognitive skills in preschool children compared to traditional learning methods.
- Play-based learning positively influences language development in preschool-aged children.
- Play-based learning enhances problem-solving and critical thinking skills among preschoolers.
- Cooperative play has a stronger impact on social development compared to solitary play.
- Preschoolers engaged in play-based learning demonstrate higher levels of social interaction than those in conventional learning environments.

## II. METHODOLOGY

Research approaches- The research approaches were quantitative research approach.

Research design- Research design is typical descriptive research design.

Research setting- The study was conduct on preschool children at selected school of Sasaram.

Sample technique - Randomized sample technique

Target population- Preschool children

Sample size- Number of sample size is 60.

Inclusion criteria-

- Those children are not going to school.
- Children age less than 5 years.

Exclusion criteria –

- School going children.
- Children age more than 5 years.

#### DATA COLLECTION

Data collection is the systematic pursuit of relevant information to address the research objectives. The data from this study were collected from 60 preschool children attending Bal Vikas Vidyalaya School, Sasaram, Rohtas. The investigator used a structured observation checklist to observe the cognitive, language, and social development of children before and after the implementation of play-based learning.

The data collection procedure was done in three phases: Pre-test Phase: The observation checklist was administered on the children to obtain baseline data about their current development levels.

Intervention Phase: The play-based learning program was conducted in a systematically child-friendly environment for a certain period.

Post-test Phase: The same checklist was administered after the intervention to evaluate the changes in learning and social development.

In the data collection process, confidentiality was guaranteed by the investigator, and permission was sought from relevant authorities at school. Children were observed in play activities to avoid anxiety; hence, responses were natural.

#### INTERVENTION

The intervention comprised a play-based learning program designed to increase cognitive, language, and social interaction competencies in preschool children. The intervention was conducted over a period of two

weeks, with sessions held daily for 45 minutes.

Structure of the intervention:

Day 1–2: Story-telling and picture identification activities (language enrichment).

Day 3–5: Building blocks, matching games, and puzzles (cognitive skills)

Day 6–8: Role playing, puppet shows, and group games - social interaction.

Day 9–10: Play sessions combining all activities.

The learning sessions were interactive, focusing on collaboration, creativity, and communication. Two weeks later, post-test observations were made using the same tool to measure improvement.

**DATA ANALYSIS**

Data analysis entails the systematic application of statistical techniques that describe, summarize, and test relationships among variables. The analyses utilized both descriptive and inferential statistics. Descriptive statistics such as frequency, percentage, mean, median, and standard deviation were applied to describe demographic characteristics and pre-test and post-test scores.

The relationships between play-based learning and selected demographic variables were ascertained using inferential statistics such as the Chi-square test. Analysis was performed as per the objectives of the study. Results were represented in tables and figures for clarity.

**III. RESULTS**

The results of the study were organized under the following sections:

**Description of Sample Characteristics**

Of the 60 children, 63.3% were boys and 36.6% were girls. The majority, 46.6%, were 5 years old, while 63.3% were from rural areas. The majority, 70%, were Hindu, and 45% had two siblings.

**Comparison of Pre-test and Post-test Scores**

Before the intervention, 36.6% of children had poor development, 50% had fair development, and 13.3% had good development.

After the play-based learning program, only 10% remained in the poor category, whereas 70% were in fair and 20% at good development levels.

The average score increased from 5.38 in the pre-test to 6.85 in the post-test, with an SD of 2.91 and 2.28, respectively, indicating significant improvement in overall development.

**Association between Development and Demographic Variables**

Chi-square test revealed that the development level in post-tests did not vary based on demographic characteristics such as gender, age, area of residence, religion, and number of siblings since the probability was greater than 0.05.

This suggests that the effectiveness of play-based learning didn't vary across demographic groups.

Table 4.1: Chi Square Association between play-based learning and social development with selected demographic variables

Demographic Data	Poor Development(1-7 or ≤25%)		Fair Development(8-15 or 26-50%)		Good Development(16-25 or ≥76%)		df / p-value /χ <sup>2</sup> /Inference
	No.	%	No.	%	No.	%	
<b>1. Gender</b>							
Male	4	10.5	24	63.1	10	26.3	df = 2, p = 0.395, χ <sup>2</sup> = 1.86
Female	2	9.1	18	81.8	2	9.1	
Other	0	0	0	0	0	0	
<b>2. Age (Years)</b>							
3 Years	1	10	6	60	3	30	df = 4, p = 0.048, χ <sup>2</sup> = 5.7*
4 Years	3	13	17	74	2	13	
5 Years	2	7	19	70	7	23	
6 Years	0	0	0	0	0	0	
<b>3. Religion</b>							
Hindu	5	11.9	30	71.4	7	16.7	df = 4, p = 0.661, χ <sup>2</sup> = 2.41
Muslim	1	7.1	9	64.3	4	28.6	
Other	0	0	3	100	0	0	
<b>4. Number of Siblings</b>							
1	0	0	0	0	0	0	df = 4, p = 0.410, χ <sup>2</sup> = 3.97
2	2	7.4	20	74	5	18.6	
3	2	18.2	8	72.7	1	9.1	
More than 3	1	25	2	50	1	25	
<b>5. Area</b>							
Rural	3	7.5	27	67.5	10	25	df = 2, p = 0.542, χ <sup>2</sup> = 1.22
Urban	3	15	15	75	2	10	

Significant at  $p < 0.05$

**Interpretation of Results**

Results indicated that play-based learning positively impacted the cognitive, language, and social development in children. The increased score in post-test results proves that structured play can bring improvement in learning outcomes for preschool children.

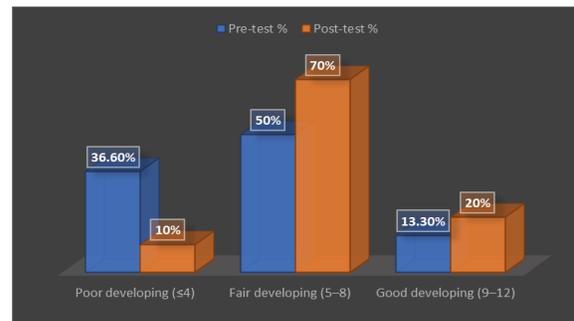


Fig 4.1: Comparison of pre-test and post-test scores on learning and social development.

#### IV. SUMMARY OF DATA ANALYSIS

The study involved 60 preschool children. Descriptive and inferential analyses were done using tables and graphs. There was a notable improvement in learning and social development after the intervention. No demographic factor significantly affected the outcomes. The findings from the study proved that play-based learning is an efficient approach in early childhood education.

#### V. DISCUSSION

A pre-experimental one-group pre-test post-test design was used to examine the effect of play-based learning on social development among preschool children, with 60 participants. Instruments used for data collection included structured questionnaires and observation checklists.

Results indicated that after the implementation of the play-based learning activities, children demonstrated significant development in cognitive, language, social, and emotional aspects. In regard to the first objective, there was a significant improvement in cognitive development after intervention; the mean score increased from 5.38 to 6.85. Children demonstrated noticeable improvement in reasoning, sorting, and memory tasks, which shows that play-based methods enhance cognitive abilities.

Under the second objective, language development improved through group storytelling, songs, and role play. Children showed a better vocabulary, proper sentence formation, and confidence in communication skills, re-affirming Vygotsky's tenet of language growth through social interaction.

The third aim of this study was social interaction, and it was established that cooperative and group games encouraged empathy, turn-taking, and teamwork. More children shifted to fair and good development levels post-intervention, reflecting stronger peer relationships and social maturity.

The fourth objective was enhancement in emotional regulation through dramatic and role-play activities. The teachers reported reduced conflict situations, increased sharing, and more self-expression, hence bolstering Erikson's psychosocial theory of development. The fifth objective investigated the level of structured versus unstructured play. Both had unique contributions-structured play fostered aspects of

cooperation and leadership, and unstructured play nurtured creativity and emotional expressiveness. A balance of both types promoted overall social-skill growth. Sixth, through playing with construction toys, puzzles, and logical games, children enhanced their problem-solving ability and developed critical thinking. They could finish the tasks more quickly, showed better cooperation, and were more proactive. Overall, the investigation confirms that play-based learning is a powerful means of fostering cognitive, linguistic, emotional, and social development during the early years of life. The intervention improved performance scores as well as encouraged positive behavioral and interpersonal outcomes among preschoolers.

#### VI. CONCLUSION

This study looked at how effective play-based learning is for the social development of preschool children. A total of 60 children took part. In the pre-test, 22 children (36.6%) had poor development, 30 (50%) had fair development, and 8 (13.3%) had good development. After the intervention, in the post-test, only 6 children (10%) stayed in the poor development group, 42 (70%) were in fair development, and 12 (20%) achieved good development.

The findings show that play-based learning significantly improved various aspects of social development, such as communication, cooperation, sharing, problem-solving, and emotional regulation. Structured play activities like puzzles, storytelling, and role-play greatly improved children's interaction and adaptability.

The study concludes that play-based learning is an effective educational method for promoting social development in preschoolers. Educators, parents, and policymakers should support and use play-based approaches in early childhood education to encourage overall growth and well-rounded personality development in children.

#### Limitations

The study focused only on preschool-aged children. The small sample size limits how widely the findings can be applied.

The study did not use advanced statistical analysis. Extraneous variables might have affected the results.

## NURSING IMPLICATIONS

1. **Nursing Practice:** Pediatric and community health nurses can use play-based techniques during child assessments to check developmental milestones. Play can also help reduce anxiety and encourage social interaction among children in hospital settings.
2. **Nursing Education:** This study emphasizes the need to include child development and play-based strategies in pediatric nursing programs. Nursing students should learn to observe children's social behavior through structured play, role-play, simulations, and case studies.
3. **Nursing Administration:** Nursing administrators can create policies that promote play therapy in pediatric and community settings. Administrative support should provide the right resources, space, and trained personnel. Encouraging collaboration between nurses and early childhood educators can help design effective programs for children.
4. **Nursing Research:** More studies are needed to examine the long-term effects of play-based learning on different areas of development. Research can compare various play interventions and their results. Future studies may also look at how parents and caregivers can strengthen play-based developmental approaches.

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