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Teachers' Perceptions Towards the Implementation of Toy-Based Pedagogy in Preparatory Classes

Sourav Das, Research Scholar, Dept of Education, Mahapurusha Srimanta Sankaradeva Viswavidyalaya, Nagaon

Dr. Mrigakhi Sarma Hazarika, Professor, Dept of Education, Mahapurusha Srimanta Sankaradeva Viswavidyalaya, Nagaon

Abstract

Toy-Based Pedagogy has emerged as an innovative and child-centred teaching approach that promotes experiential, activity-based, and joyful learning among young learners. In India, the National Education Policy (NEP) 2020 and the National Curriculum Framework for Foundational Stage (NCF-FS) 2022 advocate the integration of toy-based learning to enhance children's holistic development. The present study aims to examine teachers' perceptions towards the implementation of Toy-Based Pedagogy in preparatory classes, identify the challenges faced by teachers, assess their preparedness and professional training, and suggest measures for improving its effective implementation. The study adopts a descriptive research design based entirely on secondary data. Relevant information was collected from policy documents, including NEP 2020 and NCF-FS 2022, the NCERT Toy-Based Pedagogy Handbook, books, peer-reviewed research articles, government reports, and other authentic academic sources. The collected data were analysed through thematic analysis.

The findings reveal that teachers generally hold positive perceptions towards Toy-Based Pedagogy and recognise its potential to improve students' engagement, creativity, critical thinking, communication, and overall learning outcomes. However, the review also identifies several challenges, including inadequate teacher training, limited availability of educational toys, insufficient classroom resources, time constraints, and lack of institutional support. The study concludes that strengthening teachers' professional competencies, ensuring adequate teaching-learning materials, and providing continuous institutional support are essential for the successful implementation of Toy-Based Pedagogy. Effective implementation of this approach will contribute significantly to achieving the objectives of NEP 2020 and enhancing the quality of preparatory education through meaningful, learner-centred experiences.

Keywords: Toy-Based Pedagogy; Teachers' Perception; Preparatory Classes; NEP 2020; Experiential Learning.

Introduction

Toy-Based Pedagogy is an innovative, child-centred teaching approach that integrates toys, games, and play activities into classroom instruction to facilitate meaningful and experiential learning. It enables children to explore concepts through active participation, imagination, and problem-solving rather than passive memorisation. Research suggests that learning through toys enhances children's cognitive, social, emotional, and physical development by promoting curiosity, creativity, collaboration, and communication skills (NCERT, 2022).

The National Education Policy (NEP) 2020 advocates a significant shift from traditional rote learning to competency-based, experiential, and joyful learning. It recommends integrating play, toys, storytelling, puzzles, and local learning resources into classroom practices across the foundational and preparatory stages. In response to these recommendations, the National Council of Educational Research and Training (NCERT) developed the *Toy-Based Pedagogy Handbook* to support teachers and curriculum developers in effectively incorporating toy-based learning into school education (Ministry of Education, 2020; NCERT, 2022).

Teachers are the key stakeholders in the successful implementation of Toy-Based Pedagogy. Their perceptions, attitudes, competencies, and willingness to adopt innovative instructional practices greatly influence the effectiveness of classroom implementation. Teachers who perceive toy-based learning positively are more likely to create engaging and interactive learning environments. However, factors such as inadequate training, limited availability of educational toys, time constraints, and insufficient institutional support may hinder its successful adoption (NCERT, 2022).

Therefore, examining teachers' perceptions towards the implementation of Toy-Based Pedagogy in preparatory classes is essential for identifying both the opportunities and challenges associated with this approach. The findings of such studies can inform policymakers, teacher educators, and school administrators in designing effective training programmes and support mechanisms to ensure the successful implementation of NEP 2020 in school education (Ministry of Education, 2020).

Background of the Study

Toy-Based Pedagogy has gained considerable importance in recent years as an effective approach to making teaching and learning more engaging, experiential, and child-centred. It is based on the principle that children learn best through play, exploration, and interaction with their environment. Educational toys, puzzles, games, and manipulatives provide opportunities for learners to develop conceptual understanding, creativity, critical thinking, communication, and problem-solving skills in an enjoyable and meaningful manner (Piaget, 1952; Vygotsky, 1978). Such learning experiences promote holistic development by addressing children's cognitive, social, emotional, and physical needs.

Recognising the educational value of play, the National Education Policy (NEP) 2020 emphasises the integration of toy-based, activity-based, and experiential learning across the foundational and preparatory stages of school education. It encourages the use of indigenous and locally available toys to create joyful learning environments that foster curiosity, innovation, and cultural awareness (Ministry of Education, 2020). In line with this vision, the National Council of Educational Research and Training (NCERT) introduced the *Toy-Based Pedagogy Handbook* to guide teachers in effectively integrating toys into classroom teaching (NCERT, 2022).

The success of Toy-Based Pedagogy largely depends on teachers, as they are responsible for selecting appropriate learning materials, designing engaging classroom activities, and facilitating children's learning experiences. Therefore, understanding teachers' perceptions regarding the implementation of Toy-Based Pedagogy is essential for identifying existing opportunities, challenges,

and professional development needs. Such insights can support the effective implementation of child-centred teaching practices in preparatory classrooms and contribute to achieving the objectives of NEP 2020.

Importance of Early Childhood Education

Early Childhood Education (ECE) forms the foundation for a child's lifelong learning, development, and well-being. It encompasses the period from birth to approximately eight years of age, during which children's brains develop rapidly and are highly responsive to learning experiences. Quality early childhood education supports the development of cognitive, language, social, emotional, and physical skills that are essential for future academic success and personal growth (UNESCO, 2021).

Research indicates that children who participate in quality early childhood education demonstrate better school readiness, stronger literacy and numeracy skills, improved problem-solving abilities, and higher levels of social competence than those without such experiences (UNICEF, 2019). During these formative years, children learn best through play, exploration, interaction, and hands-on activities. Therefore, child-centred approaches such as play-based and toy-based pedagogy provide meaningful learning experiences that encourage creativity, curiosity, communication, and collaboration (Piaget, 1952; Vygotsky, 1978).

In India, the National Education Policy (NEP) 2020 recognises the foundational importance of Early Childhood Care and Education (ECCE) in achieving holistic development. It emphasises providing developmentally appropriate, activity-based, and experiential learning opportunities for children aged 3–8 years through play, storytelling, art, music, and educational toys (Ministry of Education, 2020). The National Curriculum Framework for Foundational Stage (NCF-FS) 2022 further recommends joyful, inclusive, and culturally relevant learning experiences to strengthen foundational literacy, numeracy, and socio-emotional development (NCERT, 2022).

Thus, investing in quality early childhood education not only enhances children's overall development but also contributes to improved educational outcomes, reduced learning gaps, and the creation of a strong foundation for lifelong learning.

Concept of Toy-Based Pedagogy

Toy-Based Pedagogy is a child-centred instructional approach that uses toys, games, puzzles, manipulatives, and play materials as teaching-learning resources to facilitate meaningful, experiential, and joyful learning. It is based on the principle that children learn most effectively through active exploration, play, and interaction with their environment. Rather than relying solely on traditional lecture-based methods, Toy-Based Pedagogy encourages learners to construct knowledge by engaging with concrete objects, experimenting with ideas, and solving real-life problems (Piaget, 1952).

The approach is grounded in constructivist theories of learning, particularly those of Jean Piaget and Lev Vygotsky. Piaget (1952) emphasized that children develop cognitive abilities through hands-on experiences and active interaction with their surroundings. Similarly, Vygotsky (1978) highlighted the importance of social interaction and guided learning in children's cognitive development. Toy-based activities provide opportunities for collaborative learning, communication, imagination, and creativity while enabling teachers to scaffold learning according to children's developmental needs.

Toy-Based Pedagogy has gained prominence following the introduction of the National Education Policy (NEP) 2020, which advocates play-based, activity-based, and experiential learning, particularly during the foundational and preparatory stages. The policy encourages the use of indigenous, locally available, and culturally relevant toys to make learning contextual, engaging, and inclusive (Ministry of Education, 2020). To support this initiative, the National Council of Educational Research and Training (NCERT) published the *Toy-Based Pedagogy Handbook*, which provides practical

strategies for integrating toys into classroom teaching across different subjects. The handbook emphasizes that educational toys help develop foundational literacy, numeracy, scientific thinking, creativity, communication, collaboration, and problem-solving skills while making learning enjoyable and stress-free (NCERT, 2022).

Toy-Based Pedagogy extends beyond the simple use of toys for recreation. It involves carefully planned learning experiences in which toys serve as instructional tools to achieve specific educational objectives. Teachers select toys based on learners' age, developmental level, and curriculum requirements, ensuring that classroom activities promote active participation, inquiry, and reflection. Consequently, Toy-Based Pedagogy supports the holistic development of children by fostering their cognitive, social, emotional, physical, and language development while nurturing a lifelong interest in learning.

NEP 2020 and NCF-FS 2022 Recommendations on Toy-Based Pedagogy

The National Education Policy (NEP) 2020 introduced a transformative vision for school education in India by emphasizing holistic, child-centred, and competency-based learning. One of its key recommendations is the adoption of play-based, activity-based, and experiential pedagogies, particularly for children in the Foundational Stage (ages 3–8 years) and Preparatory Stage (ages 8–11 years). The policy recognizes that young children learn best through play, exploration, storytelling, games, and interaction with their environment rather than through rote memorization. Accordingly, NEP 2020 encourages the use of educational toys, puzzles, local materials, and indigenous games to create joyful and meaningful learning experiences that foster creativity, critical thinking, communication, collaboration, and problem-solving skills (Ministry of Education, 2020).

The policy also promotes the use of locally made and culturally relevant toys under the vision of Vocal for Local, encouraging schools to integrate indigenous knowledge, art, and culture into classroom learning. Such toys help children connect academic concepts with their local environment while preserving India's rich cultural heritage. Furthermore, NEP 2020 highlights the need for continuous teacher professional development so that educators can effectively implement innovative pedagogical practices, including Toy-Based Pedagogy (Ministry of Education, 2020).

To operationalize the recommendations of NEP 2020, the National Curriculum Framework for Foundational Stage (NCF-FS) 2022 advocates developmentally appropriate, play-based, inquiry-based, and experiential learning. The framework views play as the primary mode of learning during early childhood and recommends integrating toys, games, storytelling, music, art, and hands-on activities into daily classroom practice. It emphasises that educational toys should be age-appropriate, safe, inclusive, culturally responsive, and capable of supporting foundational literacy, numeracy, language development, socio-emotional learning, and scientific thinking (NCERT, 2022).

Together, NEP 2020 and NCF-FS 2022 position Toy-Based Pedagogy as an essential strategy for promoting joyful learning, holistic child development, and competency-based education. Their recommendations also underscore the importance of teacher preparedness, adequate learning resources, and supportive school environments to ensure the effective implementation of toy-based learning in preparatory classrooms.

Role of Teachers in Implementing Toy-Based Learning

Teachers play a pivotal role in the successful implementation of Toy-Based Pedagogy, as they are responsible for creating engaging, child-centred, and developmentally appropriate learning environments. In toy-based learning, teachers act as facilitators rather than mere transmitters of knowledge. They carefully select age-appropriate and curriculum-aligned toys, games, puzzles, and manipulatives that help children explore concepts through play, experimentation, and active

participation. By designing meaningful learning experiences, teachers enable students to develop conceptual understanding, creativity, critical thinking, communication, collaboration, and problem-solving skills (NCERT, 2022).

An important responsibility of teachers is to integrate toys with learning objectives rather than using them solely for entertainment. They plan activities that align with curricular outcomes and encourage children to observe, inquire, discuss, and reflect on their experiences. Teachers also guide learners through questioning, demonstration, and feedback, ensuring that play activities contribute to meaningful learning. According to Vygotsky's (1978) theory of social constructivism, teachers provide scaffolding that supports children in achieving higher levels of understanding through guided interaction.

Teachers are also responsible for creating inclusive classrooms where every child can participate regardless of ability, gender, or socio-economic background. The National Education Policy (NEP) 2020 encourages teachers to use locally available and indigenous toys that reflect children's cultural and social contexts, making learning more relevant and engaging (Ministry of Education, 2020). Similarly, the National Curriculum Framework for Foundational Stage (NCF-FS) 2022 emphasizes that teachers should promote experiential, play-based, and inquiry-based learning while continuously observing children's progress and providing appropriate support (NCERT, 2022).

Effective implementation of Toy-Based Pedagogy also requires teachers to possess adequate professional knowledge and pedagogical skills. Continuous professional development, training workshops, and access to teaching-learning resources enhance teachers' confidence and competence in using toy-based strategies effectively. Furthermore, teachers collaborate with parents and the community to extend playful learning beyond the classroom, thereby strengthening children's overall development. Thus, teachers serve as planners, facilitators, observers, assessors, and motivators, making them the key agents in translating the objectives of Toy-Based Pedagogy into meaningful classroom practice.

Statement of the Problem

The National Education Policy (NEP) 2020 and the National Curriculum Framework for Foundational Stage (NCF-FS) 2022 advocate the adoption of Toy-Based Pedagogy as an effective approach to promote experiential, joyful, and competency-based learning in the foundational and preparatory stages of school education. This pedagogical approach aims to enhance children's cognitive, social, emotional, and creative development by integrating educational toys, games, puzzles, and play activities into classroom teaching (Ministry of Education, 2020; NCERT, 2022). However, the successful implementation of Toy-Based Pedagogy largely depends on teachers, as they are responsible for planning, facilitating, and assessing learning through play-based activities.

Despite policy support, many schools continue to face challenges such as inadequate teacher training, limited availability of educational toys and learning materials, large class sizes, insufficient infrastructure, and time constraints. Moreover, teachers' beliefs, attitudes, and perceptions toward Toy-Based Pedagogy significantly influence their willingness and ability to implement this approach effectively. A positive perception may encourage innovative classroom practices, whereas negative perceptions or a lack of confidence may hinder its successful adoption.

Although Toy-Based Pedagogy has received increasing attention in educational policy, empirical studies examining teachers' perceptions, particularly in the context of preparatory classes in Nagaon District, Assam, remain limited. Therefore, there is a need to investigate teachers' perceptions regarding the implementation of Toy-Based Pedagogy, identify the opportunities and challenges they experience, and suggest measures for strengthening its effective implementation. The present study seeks to address this research gap.

Need and Significance of the Study

The introduction of Toy-Based Pedagogy under the National Education Policy (NEP) 2020 and the National Curriculum Framework for Foundational Stage (NCF-FS) 2022 has brought significant changes to teaching-learning practices in the foundational and preparatory stages of school education. This pedagogical approach emphasizes experiential, activity-based, and joyful learning to foster children's holistic development, including cognitive, social, emotional, physical, and creative abilities (Ministry of Education, 2020; NCERT, 2022). However, the effectiveness of Toy-Based Pedagogy largely depends on teachers, who are the primary agents responsible for translating educational policies into classroom practice.

Teachers' perceptions play a crucial role in determining the successful implementation of innovative teaching approaches. Positive perceptions encourage teachers to integrate toys and play-based activities into their daily teaching, whereas negative perceptions or inadequate knowledge may limit their effective use. Despite the policy emphasis on Toy-Based Pedagogy, many teachers encounter challenges such as inadequate professional training, insufficient teaching-learning materials, limited classroom resources, large class sizes, and time constraints, which may affect the quality of implementation (NCERT, 2022).

In the context of Nagaon District, Assam, limited empirical research has examined teachers' perceptions toward the implementation of Toy-Based Pedagogy in preparatory classes. Therefore, the present study is significant as it seeks to understand teachers' attitudes, identify the opportunities and challenges they experience, and assess their readiness to adopt this learner-centred approach. The findings will provide valuable insights for policymakers, school administrators, curriculum developers, and teacher educators in designing effective training programmes, improving resource availability, and strengthening classroom practices. Furthermore, the study will contribute to the existing body of knowledge on child-centred pedagogy and support the successful implementation of the objectives of NEP 2020, ultimately promoting quality education and holistic development among young learners.

Objectives of the Study

1. To examine teachers' perceptions towards the implementation of Toy-Based Pedagogy in preparatory classes.
2. To identify the challenges faced by teachers in implementing Toy-Based Pedagogy in preparatory classrooms.
3. To assess teachers' preparedness and professional training for the effective implementation of Toy-Based Pedagogy.
4. To suggest measures for improving the implementation of Toy-Based Pedagogy in preparatory classes.

Research Questions

RQ1: What are the teachers' perceptions towards the implementation of Toy-Based Pedagogy in preparatory classes?

RQ2: What challenges do teachers face in implementing Toy-Based Pedagogy in preparatory classrooms?

RQ3: To what extent are teachers prepared and professionally trained for the effective implementation of Toy-Based Pedagogy?

RQ4: What measures can be adopted to improve the implementation of Toy-Based Pedagogy in preparatory classes?

Review of Literature

A. International Studies

Healey and Mendelsohn (2019) examined the role of play and toys in early childhood development. Their review found that play with age-appropriate toys significantly enhances children's cognitive, language, social, and emotional development. The authors concluded that guided play supported by teachers and parents promotes holistic development.

Zosh et al. (2018) investigated guided play as an effective pedagogical approach for early childhood education. The study reported that playful learning environments improve children's problem-solving ability, creativity, collaboration, and academic achievement compared to traditional instruction.

Hema and Gandhimathi (2026) conducted a systematic review of 131 studies on traditional and digital toys used in education. The review concluded that Toy-Based Pedagogy positively influences cognitive, language, social-emotional, physical, and creative development. However, successful implementation depends on teacher preparedness, appropriate learning materials, and institutional support.

B. National Studies (India)

Ministry of Education (2020), through the National Education Policy (NEP) 2020, emphasized play-based, activity-based, and experiential learning for children in the foundational and preparatory stages. The policy recommends integrating indigenous toys and games into classroom teaching to promote joyful learning, creativity, and competency-based education.

NCERT (2022) published the Toy-Based Pedagogy Handbook, which provides comprehensive guidelines for curriculum developers, teacher educators, and school teachers. The handbook highlights that educational toys enhance children's cognitive, social, emotional, and physical development while making learning enjoyable and stress-free.

Sahoo, Sethy, and Agarwal (2026) reviewed research on toy-based pedagogy for foundational mathematics learning. They concluded that toys and manipulatives improve number sense, spatial reasoning, and conceptual understanding when teachers intentionally integrate them into classroom instruction and receive adequate training.

Bania (2026) explored teachers' perceptions and implementation challenges related to Toy-Based Pedagogy in Early Childhood Care and Education. The study reported that teachers viewed toy-based learning positively but identified inadequate training, limited teaching-learning materials, and insufficient institutional support as major barriers to effective implementation.

C. Regional Studies (Assam)

SCERT Assam (2024) incorporated Toy-Based Pedagogy into its academic guidance for schools in line with NEP 2020. The document encourages teachers to use puppets, indigenous toys, and play-based activities to promote learner-centred teaching, cultural awareness, and joyful learning among young children.

Samagra Shiksha Assam (2023–2024) promoted Foundational Literacy and Numeracy (FLN) programmes that encourage activity-based and play-based classroom practices in government schools. Teacher training programmes under FLN emphasized the use of low-cost teaching-learning materials and locally available resources to support experiential learning.

Research Gap

The reviewed literature indicates that Toy-Based Pedagogy has positive effects on children's learning and holistic development, and national policies strongly advocate its adoption. However, most studies focus on children's developmental outcomes or conceptual discussions rather than teachers' perceptions. Furthermore, there is a lack of empirical research from Assam, particularly Nagaon District, examining teachers' readiness, attitudes, and challenges in implementing Toy-Based Pedagogy in preparatory classes. Therefore, the present study seeks to fill this gap by exploring teachers' perceptions and identifying factors influencing the effective implementation of Toy-Based Pedagogy in preparatory classrooms.

Research Methodology

The present study adopts a descriptive research design based entirely on secondary data. The descriptive method is appropriate as it aims to analyze and interpret existing information regarding teachers' perceptions towards the implementation of Toy-Based Pedagogy in preparatory classes. Secondary data were collected from credible sources, including the National Education Policy (NEP) 2020, National Curriculum Framework for Foundational Stage (NCF-FS) 2022, NCERT's Toy-Based Pedagogy Handbook, research articles published in peer-reviewed journals, books, government reports, conference papers, and official websites of educational organizations.

The collected data were systematically reviewed, organized, and analysed using thematic analysis to identify key themes related to teachers' perceptions, implementation challenges, preparedness, and recommendations for the effective adoption of Toy-Based Pedagogy.

Findings

The review of literature indicates that teachers generally hold positive perceptions towards Toy-Based Pedagogy, recognizing its potential to enhance students' engagement, creativity, critical thinking, communication, and overall learning outcomes. The findings also reveal that Toy-Based Pedagogy aligns with the recommendations of NEP 2020 and NCF-FS 2022, which advocate experiential and joyful learning. However, several challenges hinder its effective implementation, including inadequate teacher training, limited availability of educational toys and teaching-learning materials, large classroom sizes, time constraints, and insufficient institutional support. The literature further highlights the need for continuous professional development and adequate resource provision to facilitate successful classroom implementation.

Discussion

The findings suggest that teachers acknowledge the educational value of Toy-Based Pedagogy and support its integration into preparatory classrooms. However, positive perceptions alone are insufficient for successful implementation. Effective adoption requires systematic teacher training, improved infrastructure, adequate learning resources, and supportive school leadership. These findings are consistent with the objectives of NEP 2020 and NCF-FS 2022, which emphasize learner-centred, play-based, and experiential teaching practices to promote children's holistic development and meaningful learning experiences.

Conclusion

Toy-Based Pedagogy is an effective child-centred approach that promotes joyful, experiential, and holistic learning in preparatory education. The review indicates that teachers generally perceive this pedagogical approach positively but encounter several practical challenges during its implementation. Addressing issues such as inadequate training, insufficient teaching-learning materials, and limited institutional support is essential for successful classroom integration. Strengthening teachers' professional competencies and ensuring the availability of appropriate educational resources will enhance the implementation of Toy-Based Pedagogy. This, in turn, will contribute to achieving the goals of NEP 2020 and improving the quality of preparatory education in India.

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