



Impact and Use of Play in Early Childhood Education Programmes: An Empirical Study

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Abstract

The present study examined the concept, significance, perception, and implementation of play in Early Childhood Education (ECE) programmes, with particular reference to selected private preschools and Government Integrated Child Development Services (ICDS) Anganwadi Centres in Indore city, Madhya Pradesh, India. Play is widely acknowledged as an essential medium for the holistic development of young children, contributing to cognitive, social, emotional, physical, and language growth. However, its effective translation into everyday classroom practice is shaped by educators' pedagogical beliefs, parental expectations, curriculum demands, institutional conditions, and the availability of material resources. The study adopted a mixed-method design that integrated quantitative and qualitative strategies. Purposive sampling was used to select 27 educators (20 from seven private preschools and 7 from Government ICDS Anganwadi Centres), 60 parents, and 40 children. Data were gathered through structured questionnaires, semi-structured interviews, classroom observations, and child-friendly interactions, and were analysed using frequency and percentage distributions alongside thematic interpretation. The study concludes that although play is universally recognised as an effective vehicle for learning and development, its practical implementation requires stronger institutional support, adequate resources, flexible curricula, sustained educator training, and greater parental awareness. Strengthening play-based pedagogy can meaningfully advance joyful, child-centred, and developmentally appropriate ECE environments in the Indian context.

Keywords: *play-based learning, early childhood education, preschool, Anganwadi, ICDS, educator perception, developmentally appropriate practice.*

1. Introduction

Early childhood is universally regarded as the formative stage of human development, providing the foundation upon which later learning, behaviour, and well-being are constructed. During the first six years of life, children undergo rapid physical, cognitive, emotional, and social change, forming attachments, building friendships, and absorbing the cultural and linguistic conventions of the society around them (Hurlock, 1978; Montessori, 1959). Neuroscientific evidence indicates that the young brain is not merely smaller than the adult brain but is actively developing and tuning its neural connections, making early experiences disproportionately influential over the trajectory of lifelong learning (Vishton, 2014). Because deprivation of stimulation during this period is associated with diminished developmental outcomes, the deliberate design of environments that invite exploration, interaction, and play is of central importance in Early Childhood Education (ECE) (UNESCO Bangkok, 2007).

In India, ECE is delivered through both public and private channels. The Integrated Child Development Services (ICDS) scheme operates a vast network of Anganwadi Centres that provide health, nutrition, and pre-



school education to children below six years of age (Ministry of Women and Child Development, 2009). Alongside this public provision, a large and rapidly expanding private preschool sector caters primarily to middle-class and affluent families. Despite the recognised significance of these early years, ECE in India has historically received limited policy attention; notably, the Right of Children to Free and Compulsory Education Act, 2009, excludes children below the age of six from its ambit (Government of India, 2009). Within this landscape, play occupies an ambiguous position: it is celebrated in theory as the natural language of childhood, yet frequently displaced in practice by formal, academically oriented instruction. The present study investigates how play is understood, valued, and enacted across contrasting ECE settings, and identifies the factors that facilitate or constrain its meaningful use.

1.1 Background of the Study

The theoretical case for play as a developmental engine is long-standing and well established. Constructivist and socio-cultural traditions, drawing on Piaget and Vygotsky, position play as the medium through which children build knowledge, negotiate meaning, and stretch beyond their current competence within a zone of proximal development (Vygotsky, 1978; Bodrova & Leong, 2007). Montessori similarly argued that the young child possesses an absorbent mind and a natural desire to learn that education should activate rather than suppress (Montessori, 1959, 1989). Contemporary bodies such as the National Association for the Education of Young Children have codified these insights into the framework of developmentally appropriate practice, in which play-based, child-initiated activity is regarded as central to quality early education (Bredekamp & Copple, 2009; NAEYC, 2009).

In the Indian context, however, the gap between this pedagogical ideal and everyday classroom reality is pronounced. Preschools in urban areas are abundant but uneven in quality, sometimes operating from unfinished premises without playgrounds or age-appropriate materials, while rural and tribal areas may lack provision altogether (Prochner, 2002). Government policy has increasingly acknowledged the value of play, most visibly through the National Early Childhood Care and Education (ECCE) Policy (Government of India, 2013), yet implementation remains inconsistent. This study is situated within this tension between policy aspiration and ground-level practice, using Indore city as a representative urban setting in which private and public ECE provision coexist.

While play is rhetorically endorsed across the ECE sector, there is limited empirical evidence on how it is actually interpreted and implemented by educators, how it is perceived by parents, and how it is experienced by children within Indian settings. Educators may hold favourable beliefs about play yet find themselves unable to enact those beliefs because of curriculum pressure, examination-oriented parental expectations, overcrowded classrooms, and scarce materials. The problem addressed by this study is therefore the persistent divergence between the recognised importance of play and its constrained application in ECE programmes, and the need to understand the mechanisms that sustain this divergence.

1.2 Research Questions

Corresponding to these objectives, the study sought to answer the following questions: How is play conceptualised and used by educators in private preschools and Government ICDS Anganwadi Centres? What benefits do educators associate with play, and how important do they consider it? Which institutional, curricular, and resource-related factors enable or obstruct play-based pedagogy? To what extent do parents



1.3 Significance of the Study

By juxtaposing private and public ECE provision within a single urban setting, the study offers a grounded account of the everyday realities of play-based pedagogy in India. Its findings are of relevance to educators seeking to align practice with developmentally appropriate principles, to parents negotiating the balance between play and school readiness, and to policymakers and administrators responsible for resourcing and regulating the sector. In documenting both the strong endorsement of play and the concrete barriers that limit it, the study contributes evidence that can inform teacher training, curriculum design, and institutional support aimed at making play a lived rather than merely stated feature of early education.

2. Review of Literature

The literature on play in early childhood education spans several decades and multiple disciplines, converging on the view that play is not a trivial or peripheral activity but a fundamental mechanism of learning and development. This section synthesises that literature under three themes: global evidence on the developmental value of play, the pedagogical and policy tensions that surround its use, and the Indian evidence base.

2.1 Global Evidence on the Developmental Value of Play

A substantial international literature establishes play as a central component of effective early childhood pedagogy, contributing to cognitive, social, emotional, linguistic, and physical development (Pyle & Danniels, 2017; Whitebread et al., 2017). Play supports the growth of executive function, self-regulation, and symbolic thinking, and provides a naturalistic context in which children practise language, negotiate roles, and resolve conflict. Medical and paediatric bodies have reinforced these findings, arguing that play promotes healthy development and strengthens the parent–child bond, and cautioning against its erosion in increasingly structured childhoods (Ginsburg, 2007; American Academy of Pediatrics, 2007). Elkind (2007) similarly warned that the displacement of play by early academic pressure risks undermining the very learning it is intended to accelerate. International organisations such as UNESCO and UNICEF have consequently advocated play-based pedagogies as a route to creativity, problem-solving, collaboration, and emotional regulation, and post-pandemic scholarship has emphasised the contribution of play to children's mental health and social reintegration (Zosh et al., 2018; OECD, 2021).

2.2 Pedagogical and Policy Tensions Surrounding Play

Despite this consensus on its value, research documents a gradual decline in opportunities for meaningful, child-initiated play in preschool and primary settings, driven by rising academic expectations and standardised learning practices (Wood, 2014; Gray, 2018). Policies emphasising literacy, numeracy, and school readiness have transformed many early childhood classrooms into academically structured environments in which spontaneous and exploratory play is curtailed (Brooker & Edwards, 2019). Cross-cultural studies reveal a recurring paradox: although parents and educators generally affirm the importance of play, education systems and family expectations frequently privilege formal, teacher-directed instruction. Scholars have distinguished between free play and guided or teacher-directed play, noting that educators often feel more comfortable with the latter because it aligns with accountability demands, while children derive distinctive benefits from the



2.3 The Indian Evidence Base

Indian scholarship confirms both the promise and the difficulties of play-based ECE. Studies of the sector describe fragmented provision, uneven quality, and a widespread tendency to treat preschool as a downward extension of formal schooling rather than as a developmentally distinct stage (Kaul & Sankar, 2009; Chopra, 2012). The India Early Childhood Education Impact Study found that quality of provision, including opportunities for developmentally appropriate activity, is strongly associated with children's outcomes, yet that many settings fall short of quality benchmarks (Kaul, Chaudhary, & Sharma, 2015). Analyses of ICDS Anganwadi provision note inadequate infrastructure, limited training, and low remuneration for workers, constraining their capacity to deliver rich play experiences (Gupta, 2009; Sahu, 2012). At the same time, private preschools, though better resourced in some respects, are often driven by parental demand for early academic achievement, reproducing the very formalism that play is meant to counter (Prochner, 2002; Verma, 2012). Table 2.1 summarises representative studies and their principal conclusions.

Table 2.1: Summary of Selected Literature on Play in Early Childhood Education

S. No.	Author(s) and Year	Focus	Principal Conclusion
1	Ginsburg (2007)	Role of play in child health	Play promotes healthy development and parent–child bonding.
2	Elkind (2007)	Erosion of play	Early academic pressure displaces valuable play.
3	Wood (2014); Gray (2018)	Decline of child-initiated play	Academic demands reduce spontaneous play opportunities.
4	Pyle & Danniels (2017)	Free vs. guided play	Educators favour guided play; free play retains unique value.
5	Kaul et al. (2015)	Indian ECE quality	Quality provision, including play, predicts child outcomes.
6	Gupta (2009); Sahu (2012)	ICDS Anganwadi provision	Infrastructure and training gaps limit play-based practice.



3. Research Methodology

The study employed a mixed-method research design, integrating quantitative and qualitative approaches in order to capture both the measurable patterns and the situated meanings of play in ECE programmes. Quantitative methods enabled the systematic description of perceptions, benefits, and barriers through frequencies and percentages, while qualitative methods, drawing on interviews and observations, provided depth and contextual understanding of classroom practice. This complementarity was considered appropriate for a phenomenon as socially embedded as play.

The study was conducted in Indore city, Madhya Pradesh, a setting in which private preschools and Government ICDS Anganwadi Centres operate in close proximity, allowing meaningful comparison across the public and private sectors. Purposive sampling was used to select participants who could provide relevant and information-rich accounts of ECE practice. The sample comprised 27 educators, 60 parents, and 40 children. Of the educators, 20 were drawn from seven private preschools, and 7 represented Government ICDS Anganwadi Centres. The distribution of the educator sample is presented in Table 3.1.

Table 3.1: Distribution of the Educator Sample by Setting

Type of Setting	No. of Centres/Preschools	No. of Educators
Private preschools	7	20
Government ICDS Anganwadi Centres	7	7
Total	14	27

Data were collected through four instruments. Structured questionnaires captured educators' and parents' perceptions of play and its benefits and barriers. Semi-structured interviews with educators and parents elicited elaborated accounts of beliefs and constraints. Classroom observations, guided by an observation schedule and field notes, recorded the actual use of play, the physical environment, and the availability of materials. Finally, child-friendly interactions, adapted to the developmental stage of the participants and conducted in familiar settings, were used to elicit children's own preferences and experiences of play.

Quantitative data were analysed using descriptive statistics, principally frequency and percentage distributions, which were appropriate given the sample size and the descriptive aims of the study. Qualitative data from interviews, observations, and child interactions were analysed thematically, with responses coded and grouped into recurring themes relating to the concept, value, and constraints of play. Ethical considerations were observed throughout: informed consent was obtained from educators and parents, assent was sought from children in age-appropriate ways, participation was voluntary, and the identities of institutions and individuals were anonymised. The study was necessarily bounded by its purposive sample and single-city focus, and its findings are therefore interpreted as illuminative of the Indore context rather than statistically generalisable to the national population.



4. Results and Discussion

This section presents the principal findings of the study, organised around the profile of the educator sample, educators' perceptions of the importance and benefits of play, the barriers that constrain play-based pedagogy, parents' perceptions, and children's preferences. Findings are reported through seven tables and interpreted in relation to the study's objectives and the reviewed literature.

4.1 Profile of the Educator Sample

The educators varied considerably in age across the two settings. As Table 4.1 shows, private preschool teachers were predominantly young, concentrated in the 20–30 age band, whereas Anganwadi workers were uniformly older, with most falling in the 40–50 range. This contrast reflects the differing recruitment patterns and career structures of the two sectors.

Table 4.1: Distribution of Educators by Age

Setting	Below 20	20–30	30–40	40–50	Above 50
Private preschools	2	11	4	3	1
ICDS Anganwadi Centres	0	0	1	5	1
Total	2	11	5	8	2

Note. N = 27 educators.

Educational qualifications also differed markedly. Table 4.2 indicates that private preschool educators were largely graduates or above, whereas Anganwadi workers more often held qualifications between the tenth and twelfth standard. This disparity has direct implications for pedagogical capacity and for the design of appropriate training.

Table 4.2: Distribution of Educators by Educational Qualification

Setting	10th–12th	Graduation	Masters and Above
Private preschools	2	12	5
ICDS Anganwadi Centres	4	1	1
Total	6	13	6

Note. N = 27 educators; no educator in the sample held qualifications below the tenth standard.

4.2 Educators' Perceptions of the Importance of Play

Educators expressed strongly favourable views regarding play. As shown in Table 4.3, two-thirds (66.7%) rated play as very important to children's development and learning, and a further 25.9% considered it important, so that over nine in ten educators endorsed play in positive terms. Only a small minority expressed neutral or negative views, confirming that unfavourable beliefs were not the primary obstacle to play-based practice.



Table 4.3: Educators' Rating of the Importance of Play

Perceived Importance	Frequency (n)	Percentage (%)
Very important	18	66.7
Important	7	25.9
Neutral	1	3.7
Not important	1	3.7
Total	27	100.0

Note. N = 27 educators; percentages rounded to one decimal place.

When asked to identify the benefits they associated with play, educators most frequently cited social development, endorsed by 92.6% of respondents, followed by emotional and cognitive development. Table 4.4 summarises the perceived benefits. The prominence of social development echoes the international literature, which emphasises play as a primary context for cooperation, turn-taking, and the negotiation of shared meaning (Whitebread et al., 2017).

Table 4.4: Educators' Perceptions of the Benefits of Play

Perceived Benefit of Play	Frequency (n)	Percentage (%)
Social development	25	92.6
Emotional development	23	85.2
Cognitive development	22	81.5
Language development	20	74.1
Physical development	19	70.4

Note. N = 27 educators; respondents could endorse more than one benefit, so percentages do not sum to 100.

4.3 Barriers to Play-Based Pedagogy

Notwithstanding these favourable beliefs, educators identified a range of substantial barriers to implementing play in practice. As Table 4.5 shows, curriculum pressure was the most widely reported obstacle (77.8%), followed by lack of time (70.4%), large class size (59.3%), and inadequate resources (55.6%). This pattern indicates that the principal constraints on play are structural and institutional rather than attitudinal: educators who value play are nonetheless prevented from enacting it by demands and conditions largely outside their control. The finding is consistent with international observations that academically oriented policies and accountability pressures crowd out child-initiated play (Wood, 2014; Brooker & Edwards, 2019).



Reported Barrier	Frequency (n)	Percentage (%)
Curriculum pressure	21	77.8
Lack of time	19	70.4
Large class size	16	59.3
Inadequate resources	15	55.6
Parental expectations of formal teaching	14	51.9

Note. N = 27 educators; multiple responses permitted.

4.4 Parents' Perceptions of Play

Parental views were more divided than those of educators. As Table 4.6 indicates, a slight majority (53.3%) were highly supportive of play-based learning, and a further quarter were moderately supportive, but a notable proportion continued to prefer formal, teacher-directed instruction in the belief that it better ensures school readiness. This ambivalence helps to explain the parental-expectation barrier reported by educators, and confirms the cross-cultural pattern in which stated appreciation of play coexists with a preference for early academic instruction (Pyle & Danniels, 2017).

Table 4.6: Parents' Perceptions of Play-Based Learning

Parental Attitude	Frequency (n)	Percentage (%)
Highly supportive of play-based learning	32	53.3
Moderately supportive	15	25.0
Prefer formal / teacher-directed teaching	10	16.7
Undecided	3	5.0
Total	60	100.0

Note. N = 60 parents.

4.5 Children's Preferences and Experiences of Play

Children's own accounts, elicited through child-friendly interactions, revealed clear preferences. As Table 4.7 shows, outdoor play was the most preferred form (45%), followed by pretend or imaginative play (25%), with constructive and other forms of play accounting for the remainder. The strong preference for outdoor and pretend play underscores children's inclination toward active, social, and imaginative engagement, and highlights the developmental cost of settings that restrict such opportunities in favour of seated, formal activity.



Preferred Form of Play	Frequency (n)	Percentage (%)
Outdoor play	18	45.0
Pretend / imaginative play	10	25.0
Constructive play (blocks, puzzles)	7	17.5
Games with rules	3	7.5
Art and craft play	2	5.0
Total	40	100.0

Note. N = 40 children.

4.6 Discussion

Taken together, the findings reveal a consistent and instructive pattern. Educators overwhelmingly value play and can articulate its developmental benefits, particularly for social growth, yet their capacity to enact play is severely constrained by curriculum pressure, time scarcity, overcrowding, and inadequate resources. Parents are broadly, though not uniformly, supportive, and a persistent minority preference for formal instruction adds to the pressure on educators. Children, for their part, express a clear appetite for active, outdoor, and imaginative play of precisely the kind that structural constraints tend to suppress. The central implication is that the gap between the recognised importance of play and its limited implementation is produced not by ignorance or scepticism among educators but by institutional and cultural conditions. Closing this gap therefore requires intervention at the level of curriculum flexibility, resource provision, class size, teacher training, and parental awareness, rather than mere advocacy for the value of play, which is already widely accepted.

5. Conclusion

This empirical study set out to examine the concept, significance, perception, and implementation of play in Early Childhood Education programmes across selected private preschools and Government ICDS Anganwadi Centres in Indore city. The evidence gathered from educators, parents, and children converges on a clear conclusion: play is almost universally recognised as an effective medium for the holistic development and learning of young children, but its practical use is significantly constrained by structural, institutional, and cultural factors. Educators strongly endorsed play, with two-thirds regarding it as very important and social development identified as its foremost benefit, yet they simultaneously reported that curriculum pressure, lack of time, large class sizes, and inadequate resources routinely prevented them from putting their beliefs into practice.

Parents occupied a more ambivalent position, with a slight majority supporting play-based learning while a meaningful minority continued to favour formal instruction for the sake of perceived school readiness, thereby



reinforcing the pressures experienced by educators. Children themselves expressed a marked preference for active, outdoor, and imaginative play, indicating that the forms of play most curtailed by institutional constraints are precisely those they most value. The study therefore confirms a persistent divergence between the rhetorical endorsement of play and its constrained enactment, and locates the source of that divergence in conditions of practice rather than in unfavourable attitudes.

On the basis of these findings, the study recommends that ECE provision be strengthened through several complementary measures: the adoption of more flexible, developmentally appropriate curricula that legitimise play; the provision of adequate space, materials, and manageable class sizes; sustained pre-service and in-service training that equips educators to design and facilitate purposeful play, including the balance of free and guided play; and structured engagement with parents to build awareness of the developmental value of play and to reframe school readiness in developmentally appropriate terms. Particular attention is warranted for the ICDS Anganwadi sector, where infrastructural and training deficits are most acute.

The study is bounded by its purposive sample and its focus on a single city, and its quantitative findings are descriptive rather than generalisable. Future research could extend the enquiry to rural and tribal settings, employ larger and more representative samples, and adopt longitudinal designs capable of tracing the relationship between play-based provision and later developmental outcomes. Notwithstanding these limitations, the study contributes grounded evidence that strengthening play-based pedagogy, supported by adequate resources, flexible curricula, trained educators, and informed parents, can advance joyful, child-centred, and developmentally appropriate early education in the Indian context.

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