

The India Early Childhood Education Impact Study



If we could take a snapshot of all four-year-olds in India at, say, 11 a.m. across the entire country, where would we find them and what would they be doing?

Are they at home, with parents and siblings, perhaps with other family members? Are they in a government preschool facility known as an Anganwadi Centre? In a private preschool? Or perhaps accompanying their older siblings in a primary school classroom? More importantly, are these early experiences helping to prepare them for what will soon be expected of them in primary school?

The fact is that we don't know the answer to these questions. The reason this matters is because international research demonstrates conclusively that 90% of brain growth occurs by age 5. This means that children's environment and the inputs and support they receive in their early years will have an enormous impact on their future – both in school and beyond.

A growing body of evidence points to the fact that there is a learning crisis in India: children are enrolled in school but failing to learn even the basics. This crisis may begin long before children ever enter grade 1. Identifying the support that children need in their early years may help prevent learning problems from occurring and accumulating later on.

About the study

The IECEI Study is a longitudinal study that followed a cohort of 14,000 four-year-olds from age 4 to age 8 in rural areas of three states of India: Assam, Rajasthan and Telangana. The first of its kind in India for its scale and its longitudinal, mixed methods design, the study documented children's institutional participation; assessed their school readiness levels and subsequent early grade learning outcomes; observed their classrooms; and collected information from their homes and preschools/schools. It also made a comprehensive assessment of the quality of preschool programmes and identified specific programme characteristics that are associated with positive developmental outcomes for children. This policy brief summarizes major findings and recommendations from the study.

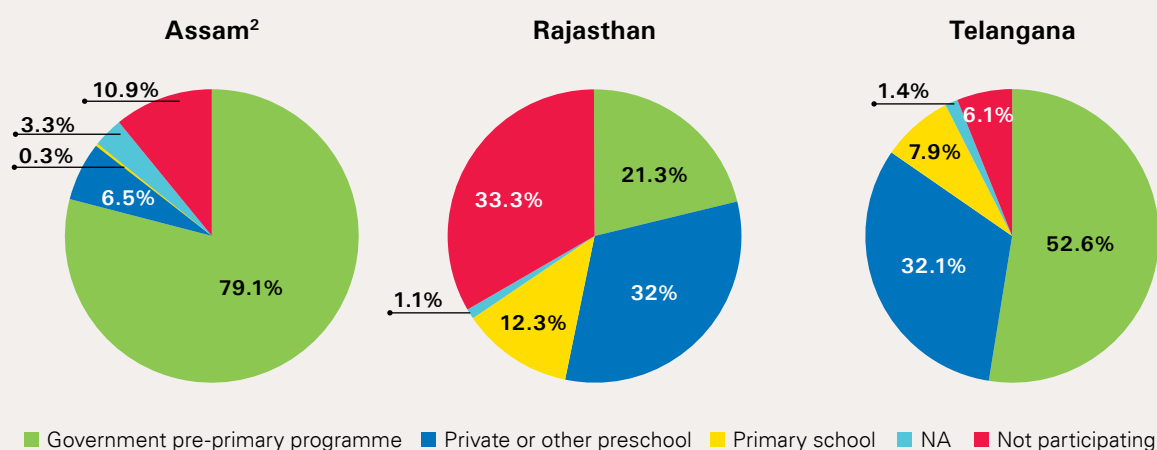
Major findings from the IECEI Study

1 Seven out of every ten sampled 4-year-olds already attend a preschool programme. With access no longer the main issue, India is well placed to invest in the quality of early childhood education.

Almost all of the villages sampled for the IECEI Study had at least one government preschool facility, usually an Anganwadi Centre. The majority also had one or more privately managed preschools. Most families were sending their children to these facilities, even at age 4.

This is a major achievement. With both supply of and demand for preschool facilities in place, the time is ripe to focus on ensuring the quality of services that these institutions provide, while also ensuring access for the yet unreached.

Types of ECE centres and schools children were attending at age 4¹



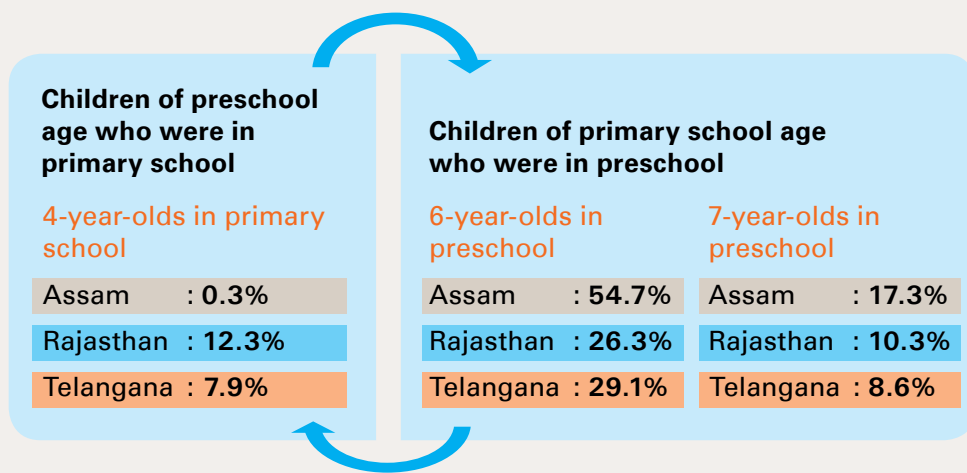
¹ In the first wave of fieldwork, information on the type of the institution could not be documented for a small proportion of children. Such institutions have therefore been categorized as 'NA' for this round.

² Includes a small proportion of children enrolled in Ka-shrenis, the preschool class attached to some primary schools in Assam.

2 Young children do not follow the linear trajectories that policies prescribe, or that the education system expects.

Children’s participation in preschool and early primary grades is unstable and fluid, and does not necessarily follow the linear age-based trajectory prescribed by policy (RTE Act, 2009 and National ECCE Policy, 2013). In some states, large numbers of 4-year-olds are already in school (although not necessarily enrolled). In others, significant proportions of 6- and 7-year-olds are still in preschool. In all states, children attend irregularly; back and forth movements between preschool and primary grades are frequently observed, and enrolments stabilize only by age 8.

Children’s participation in school/preschool at different ages, by state



School structures, curricula and processes are designed based on assumptions about children following a linear, age-based trajectory through the system. However, the varying participation pathways mentioned above mean that the assumptions rarely match the actual age composition of early grade classrooms. In consequence, large proportions of children are expected to master curriculum content that is developmentally inappropriate.



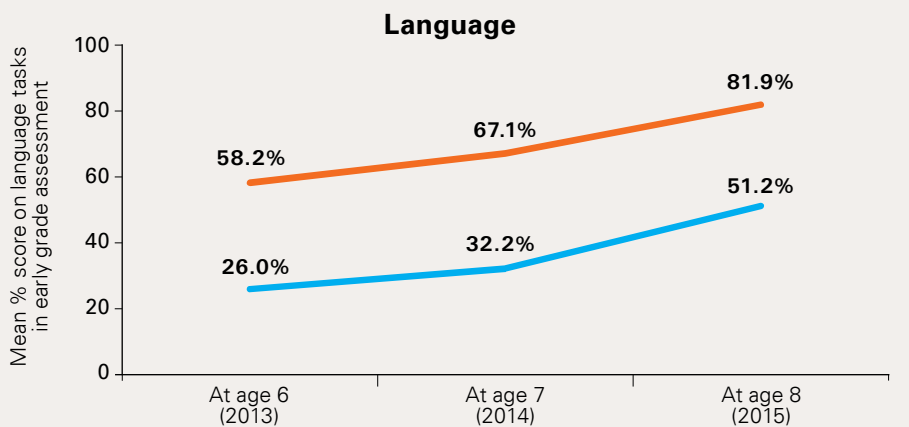
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3 Participation in good quality preschools leads to higher school readiness levels, which in turn lead to better early grade outcomes. But at the time of school entry at age 5, most children's school readiness levels are far below expectations.

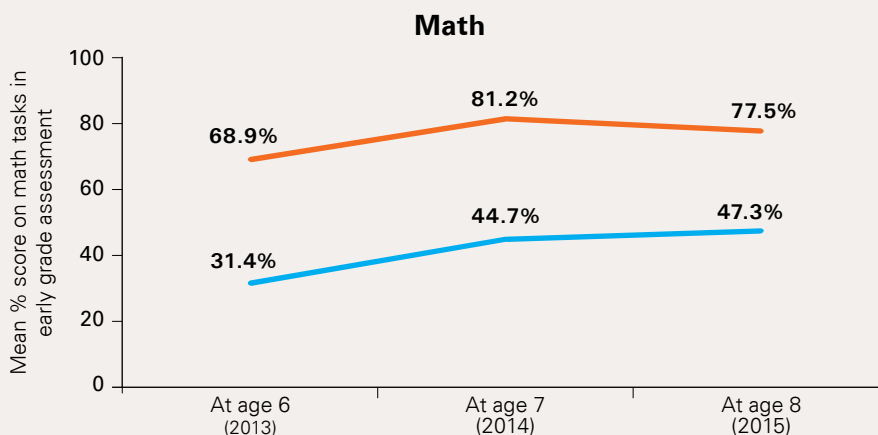
Regular preschool participation from ages 4 to 5 years has a significant impact on children's school readiness levels at age 5+, with the quality of preschool education emerging as a key factor in enhancing school readiness levels. School readiness at age 5+ in turn associates significantly with learning outcomes in early primary grades, particularly in language and mathematics. The school readiness domains assessed in this study focused on children's cognitive, pre-literacy, and pre-numeracy abilities.

On average, children's school readiness levels at age 5 were far below expected levels. Most children participate in institutions that are of low quality and fail to use age appropriate methods, materials, and activities. Children thus enter school unequipped with the cognitive, pre-literacy and pre-numeracy skills and conceptual understanding necessary to meet the demands of the primary school curriculum. The gap between what children can do and what is expected of them appears early and widens rapidly as children progress from one grade to another.

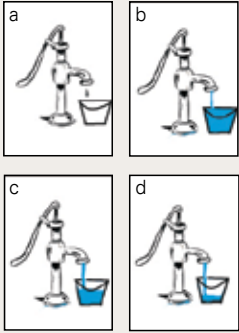
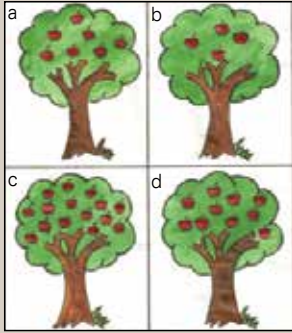
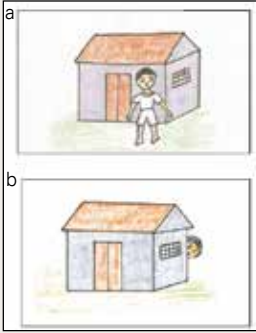
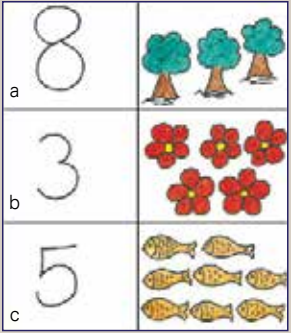
Relationship between school readiness and early grade learning



— Children in top quartile in school readiness assessment at age 5 (2012) — Children in bottom quartile in school readiness assessment at age 5 (2012)



Examples of specific tasks given to children at age 5 to assess ability in school readiness domains

Sequential Thinking	Pre-number	Spatial Concept	Number Matching
<p>Indicate the correct sequence of pictures for the process of filling up an empty bucket.</p> 	<ul style="list-style-type: none"> Point to the tree that has the least number of apples. Point to the tree that has the maximum number of apples. 	<p>In which picture is the child behind the house?</p> 	<p>Identify the pictures and numbers and match them.</p> 

4 From 'multi-tasked' Anganwadi Centres to 'demand-driven' private preschools, the quality of preschool education is not developmentally appropriate for children.

Government-run Anganwadi Centres and privately managed preschools are the two major models of early childhood education available in India today. Only a tiny proportion of children access other options, such as preschools run by NGOs, or religious or other organizations.

Anganwadi Centres and private preschools are very different on a range of parameters, with Anganwadi Centres operating primarily as nutrition/day care centres and private preschools functioning largely as a downward extension of primary schools. Neither model offers children the environment and inputs they need for their optimal development at this age. In particular, opportunities for planned play, a critical component of successful early childhood education programmes, are almost entirely absent from both models, and there is a focus on formal teaching of reading, writing and arithmetic (3R's).

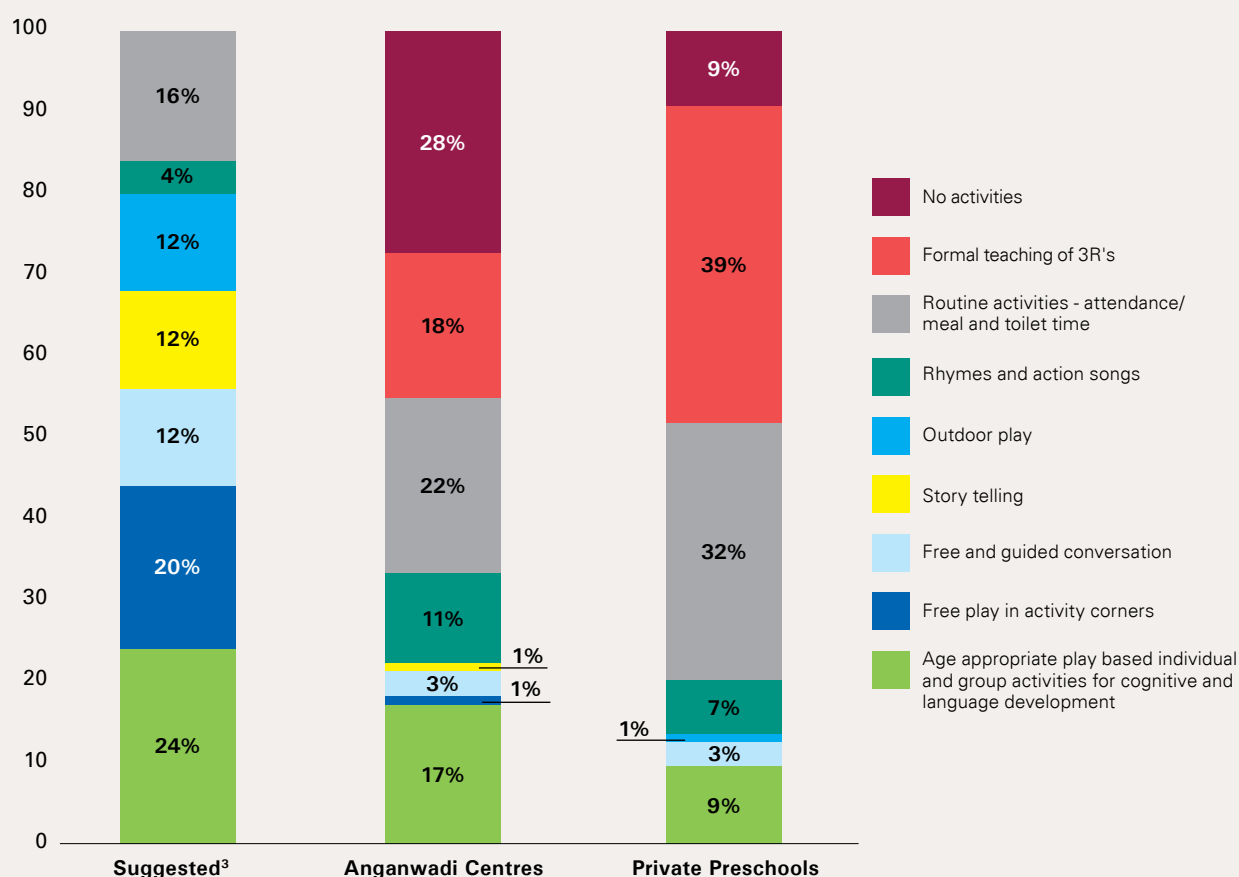


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Existing models in preschool education

Anganwadi Centres	Private Preschools
<ul style="list-style-type: none"> Limited infrastructure and learning aids in classrooms 	<ul style="list-style-type: none"> Better infrastructure, but very few learning aids
<ul style="list-style-type: none"> More children in the younger (2-4) age group and fewer in the 5-6 age group 	<ul style="list-style-type: none"> Homogeneous age group
<ul style="list-style-type: none"> Low participation, leading to a good pupil-teacher ratio 	<ul style="list-style-type: none"> High pupil-teacher ratio
<ul style="list-style-type: none"> No schedule is followed 	<ul style="list-style-type: none"> Fixed weekly schedule with supervision
<ul style="list-style-type: none"> Formal teaching with some free play, songs, rhymes and better social interaction 	<ul style="list-style-type: none"> Formal teaching with rote memorization and no age appropriate activities
<ul style="list-style-type: none"> Community worker provided with minimal on-the-job training 	<ul style="list-style-type: none"> Teachers untrained in ECE

Distribution of time on different activities in preschool programmes



³ The suggested percentage of time spent on different activities in preschools and the emerging model of good practice highlighted in this brief are based on data from Strand B of the study, which included a few purposively sampled preschool programmes that were different from the two main models described in this policy brief. These included state government sponsored Balwadis, NGO programmes, and preschool classes attached to primary schools.

Key Policy Recommendations



Include pre-primary education as an integral part of the Right to Education Act (2009)

Experiences at the preschool stage influence children's outcomes at the primary stage of education. Although beyond the scope of this study, international research shows that the effects of good quality preschool education continue well beyond school as well. Currently, the RTE Act covers only children in the age group 6-14, thus excluding children during the most important phase of brain development, in violation of their right to a sound foundation for education.



Ensure that children begin primary school only when they are developmentally ready

Currently, many state governments allow children to enter school before the age of 6. The RTE Act stipulates the entry age for grade 1 to be 6+ years and should be made mandatory across the country, so that children entering primary education are better able to handle curriculum demands.



Design a flexible, play-based foundational curriculum for 3- to 8-year-olds along an early learning continuum

Such a curriculum would cover preschool to the early primary grades, thus building upward from what three-year-olds need rather than downward from the existing primary school curriculum, as at present. The curriculum should meet the specific content and pedagogical requirements of this foundational stage with play-based opportunities and experiences for emergent and early literacy and numeracy and all round development of the child. To support this foundational stage, develop a customized teacher education curriculum and a cadre of trained teachers at par in status with primary school teachers.



Institute a regulatory system for early childhood education

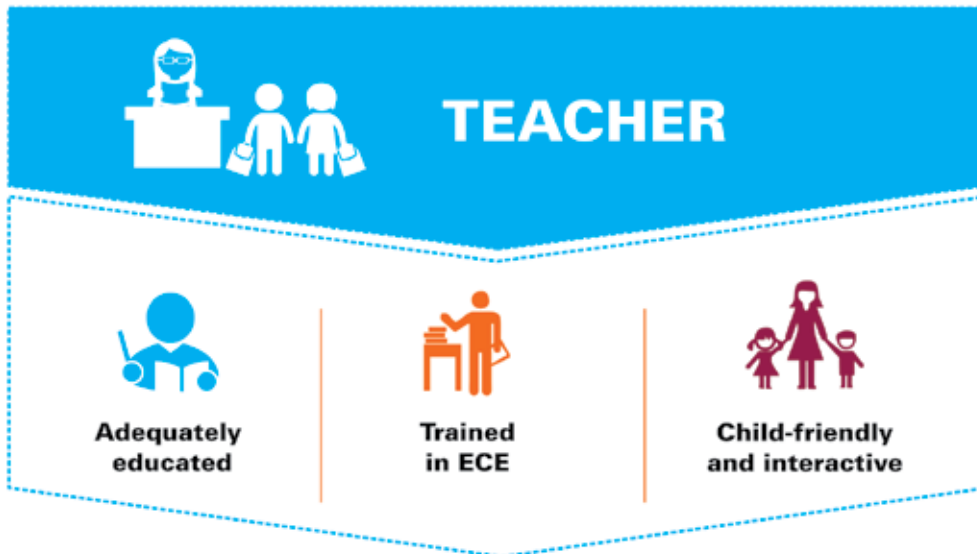
Institute an effective quality regulation or accreditation system for early childhood care and education as recommended in the National Early Childhood Care and Education Policy (2013). This should cover preschool education across private, public and voluntary sectors to ensure compliance with quality standards and prerequisites for developmentally appropriate practices in these critical years.



Reach out to parents, communities, and other stakeholders to generate demand for developmentally appropriate early childhood education

All stakeholders - policy makers, teachers, parents and others – need to understand why and how young children's learning needs are different from what formal education provides, and why meeting these needs is critical to establishing a solid foundation for life-long learning and development. Activities that should be prioritized and proactively supported include large-scale advocacy via public service messages and media campaigns; mechanisms that facilitate direct communication between pre-primary education programmes and parents; and the design and large-scale dissemination of simple methods and materials that enable parents to actively support their children's learning.

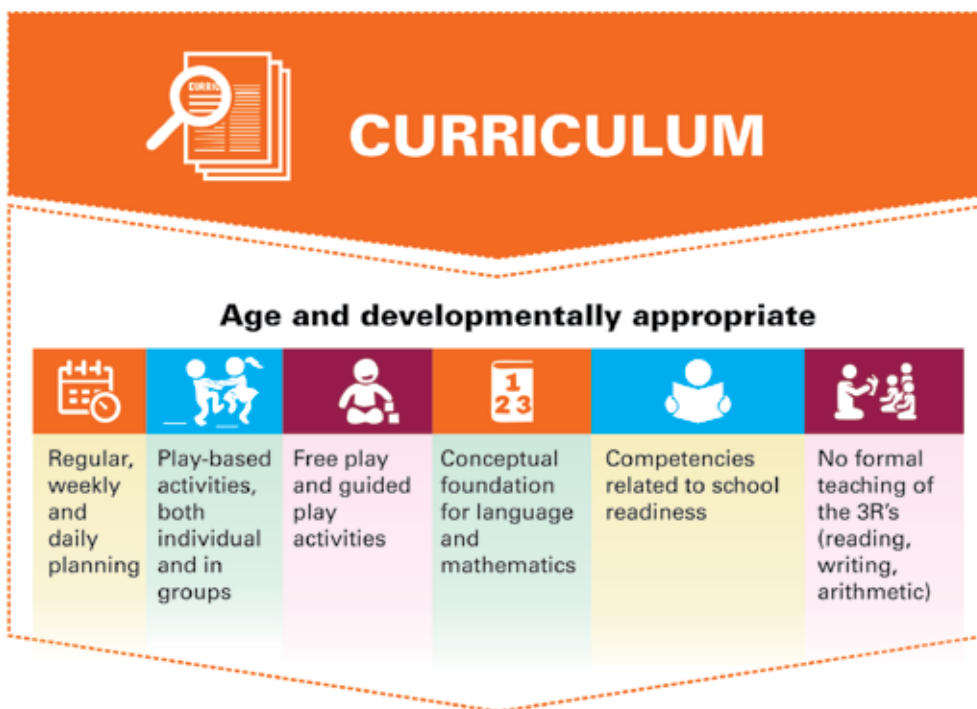
Emerging model of good practice in ECE that promotes school readiness



Creates interactive and individualized environment

Encourages children to ask questions and be curious

Communicates with children to help them think and be creative



High levels of school readiness

Personal, social readiness for better school adjustment

Cognitive readiness for learning of mathematics and language