

# EVALUATING SCHOOL READINESS IN INDIA

---

June 2023



# Acknowledgements

## Contributors

Dr Shweta Gaur, Sahana VP, Anantha Narayan, and Anagha Wankhede.

We would like to thank **Swetha Guhan and Naveen Raj (Key Education Foundation)** for their valuable inputs that helped shape this primer.

## Disclaimer

This report has been produced by a team from Sattva Consulting as a product for the Sattva Knowledge Institute (SKI). The authors take full responsibility for the contents and conclusions. Any participation of industry experts and affiliates who were consulted and acknowledged here, does not necessarily imply endorsement of the report's contents or conclusions. To quote this primer, please mention: Sattva Knowledge Institute, Evaluating School Readiness in India, June 2023. Use of the report's figures, tables or diagrams, must fully credit the respective copyright owner where indicated. Reproduction must be in original form with no adaptations or derivatives. For use of any images in the report please contact the respective copyright holders directly for permission.

This work is licensed under the Creative Commons Attribution-Non Commercial-ShareAlike 4.0 International License:

Attribution - You may give appropriate credit, provide a link to the license, indicate if any changes were made.

Non-Commercial - You may not use the material for commercial purposes.

Share A Like - If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.



To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/4.0/>

## About Sattva Knowledge Institute

Sattva Knowledge Institute (SKI), established in 2022, is our official knowledge platform at Sattva. The SKI platform aims to guide investment decisions for impact, shedding light on urgent problems and high potential solutions, so that stakeholders can build greater awareness and a bias towards concerted action. Our focus is on offering solutions over symptoms, carefully curating strong evidence-based research, and engaging decision-makers actively with our insights. Overall, SKI aims to shift intent and action toward greater impact by influencing leaders with knowledge. All of our content proactively leverages the capabilities, experience and proprietary data from across Sattva.

**Design:** Usha Sondhi Kundu; [cognitive.designs@gmail.com](mailto:cognitive.designs@gmail.com)



# CONTENTS

1	Executive Summary	04
2	What is School Readiness?	07
3	Criticality of School Readiness	10
4	Landscape of School Readiness in India	13
5	Factors Affecting School Readiness	17
6	Challenges in Achieving School Readiness	24
7	References	28

# EXECUTIVE SUMMARY

---



The definition of **school readiness is located within a framework that has two characteristic features - transition and gaining competencies - and the readiness of three entities, children, families and communities, and schools themselves.** There is enough evidence at the global and national levels to establish the role of school-readiness in the continuity of education in the later stages, and also its contribution to the emotional well-being and economic gains for the individual. Low levels of school-readiness among students entering Grade 1 impact the continuity of their education later in life.

At the policy and programme levels, a series of initiatives from the Government of India in the form of signing international declarations (Mid-day Meal scheme, National Nutrition Mission for early childhood care and education) and national-level initiatives like the Rajiv Gandhi Creche Scheme, along with the National Education Policy emphasising on achieving foundational learning by enabling early childhood education have all contributed to building awareness and accountability in the system providing for early childhood education. The recently released National Curriculum Framework for Foundational Stage in 2022 by the Ministry of Women and Child Development provides clear guidelines regarding the pedagogy and curriculum to achieve school readiness.

**There is a learning crisis in India.** A major reason for this crisis is lack of school readiness that begins before students enter Grade 1. 70% of the students (4-year-olds) are in preschools, but poor quality of education at both anganwadi centres and private preschools leads to low school readiness among students transitioning to primary schools.

**Factors affecting school readiness are manifold.** The lack of regulatory mechanisms for private preschools and anganwadis providing Early Childhood Education in India leads to a variation in the philosophy, pedagogy and curriculum. Access to preschools, enrollment and even attendance varies across regional, class and caste lines. The ambiguity of roles and responsibilities of the two ministries governing anganwadi centres in India leads to inefficiency in monitoring and evaluation of curriculum, pedagogy and infrastructure. Nipun Bharat, the implementing agency for achieving foundational learning and numeracy entails assessing school. However, it lacks a comprehensive standardised tool for assessment. Several socio-economic factors impact the school readiness of the child entering Grade 1.

The major challenges that hinder achieving school readiness among the preschoolers are **parents' demand for pedagogy that is developmentally inappropriate** and systemic challenges arising due to **lack of teacher accountability, lack of implementation of regulations for private preschools and inter-ministerial collaborations. Absence of assessment framework to measure child and parent's school readiness** acts as another challenge leading to low quality of early childhood education and eventually students not being ready for primary schooling.



# WHAT IS SCHOOL READINESS?

---



# Although the National Early Childhood Care and Education Policy was launched in 2013, school readiness for students entering Grade 1 is still a distant dream.

## Background

India is home to the largest schooling system in the world, with **98% of our children**, that is

25 crore students



attending  
15 lakh schools



taught by  
92 lakh teachers.



Despite gains in education access, recent learning assessments show that students, especially from poor families, are leaving school unequipped with even the most foundational skills they need for life (World Bank 2018).

**99 million children are eligible for early childhood education in India** (Census 2011).

However, **only 31.4 million students are covered** through anganwadi services or pre-primary sections of Government primary schools. In addition, 28% of the children in the 4-6-year age group are not attending any preschool (ASER 2023).

On average, **children's school readiness levels at the age of 5 are far below expected levels in India**, indicating they enter school lacking cognitive, pre-literacy and pre-numeracy skills necessary to meet the demands of the primary school curriculum (Kaul et al. 2017).

**44% children enrolled in Grade 1 before the age of 6**, due to a lack of any suitable preschool options. These are often the children that lag the most in the early school years and beyond.

In twenty one states in the country, **children enter Grade 1 at the age of 5 years** (NCFFS 2022).

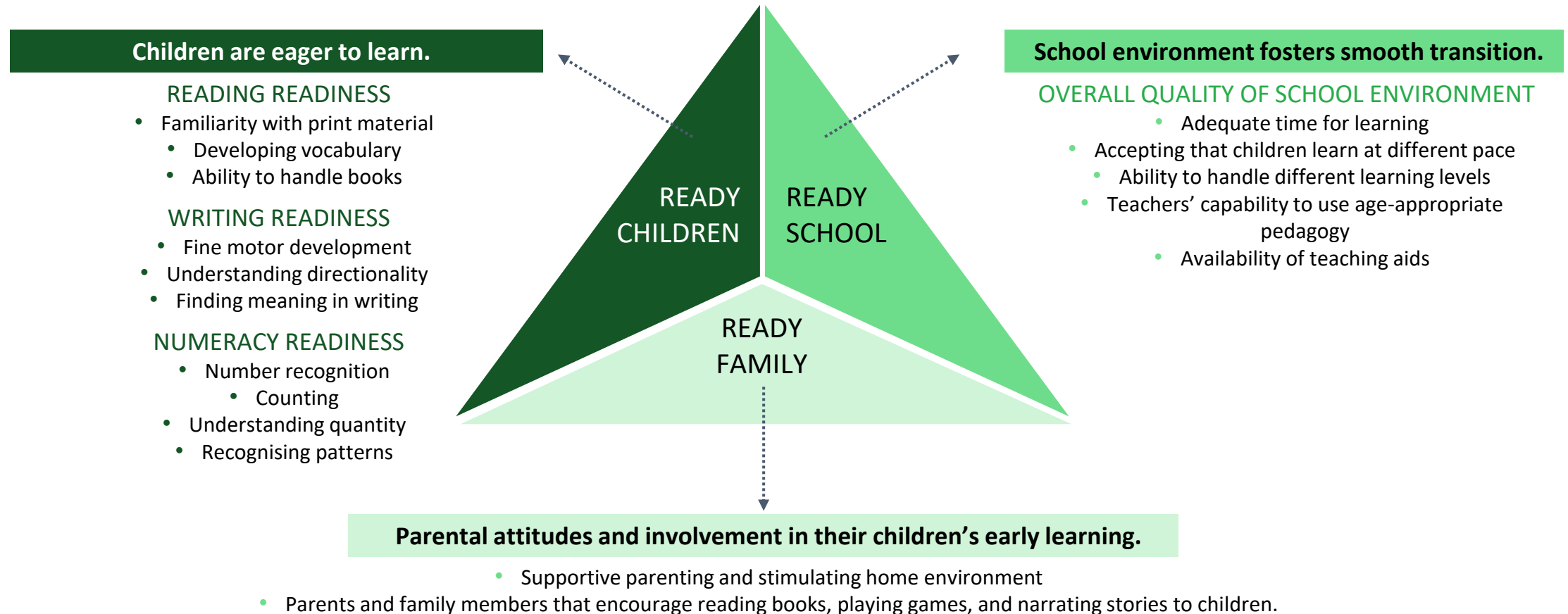
There is also **high out-of-pocket spending for parents that are sending their kids in private preschools** (varies from Rs 1,030 in government institutions to as much as Rs 12,834 in private institutions).

The expenditure varies across states, income classes and places of residence as there is no regulatory framework for ECCE across all service providers.

*NCFFS 2022; World Bank 2018; Kundu et al. 2021.*

## School readiness in India encompasses children, their families and the school system.

School readiness has two characteristics, 'transition' and 'gaining competencies'; and three dimensions: children's readiness for school, schools' readiness for children, and families' and communities' readiness to interact with the school and send their children to school regularly



Source: Nipun Bharat



# CRITICALITY OF SCHOOL READINESS

---



## School readiness contributes to the lifelong developmental potential for interdependent - physical, cognitive, emotional and social - competencies.

Globally, school readiness is considered a framework for improving equity in access to education. In addition, it ensures better learning outcomes and full developmental potential of children.



### School Readiness and Academic Achievement

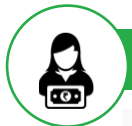
Researchers found that children who had stronger language and math skills in kindergarten were more likely to graduate high school, attend college, and have higher-paying jobs as adult (Chicago Longitudinal Study 2008). However, early gaps in school readiness magnify over time and contribute to disparities in achievement proficiency and school completion (Reynolds 2019).

Studies from India also highlight the role of school readiness in promoting enrolment, reduction in drop out and greater retention in primary schooling (NIPCCD 1985).



### School Readiness and Wellbeing in Adulthood

The individuals who were better prepared for school as children have been found to experience lower levels of anxiety and depression in adulthood. Moreover, they tend to have a more positive outlook on life in adulthood, including higher levels of self-esteem, social competence, and perceived control over their lives (Abecedarian Approach 2021).



### School Readiness and Economic Achievement

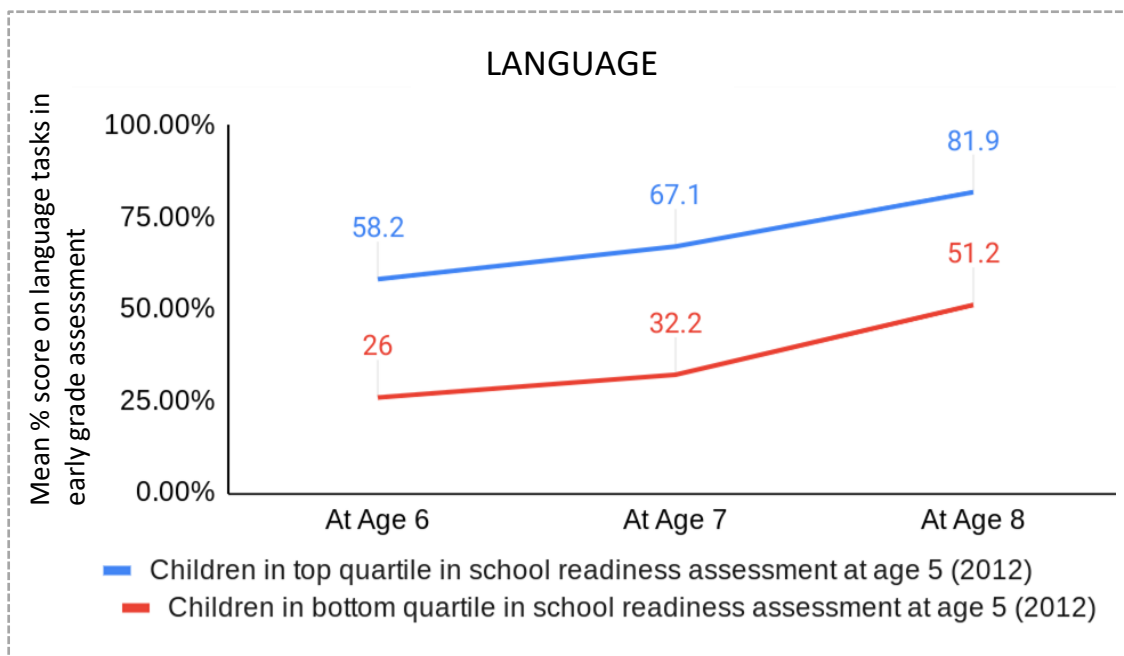
Several studies in India found that children who participated in the preschool programme had higher levels of school readiness and were more likely to have higher-paying jobs in adulthood (Young Lives India 2020; UNESCO 2007). Young children who suffered from stunting but received high-quality early stimulation support, earned 25% higher wages as adults in Jamaica (World Bank).

Source: Ou and Reynolds 2008; Reynolds 2019; Sparling et al. 2021; UNESCO 2007; NIPCCD 2007; Nurturing Care 2021.

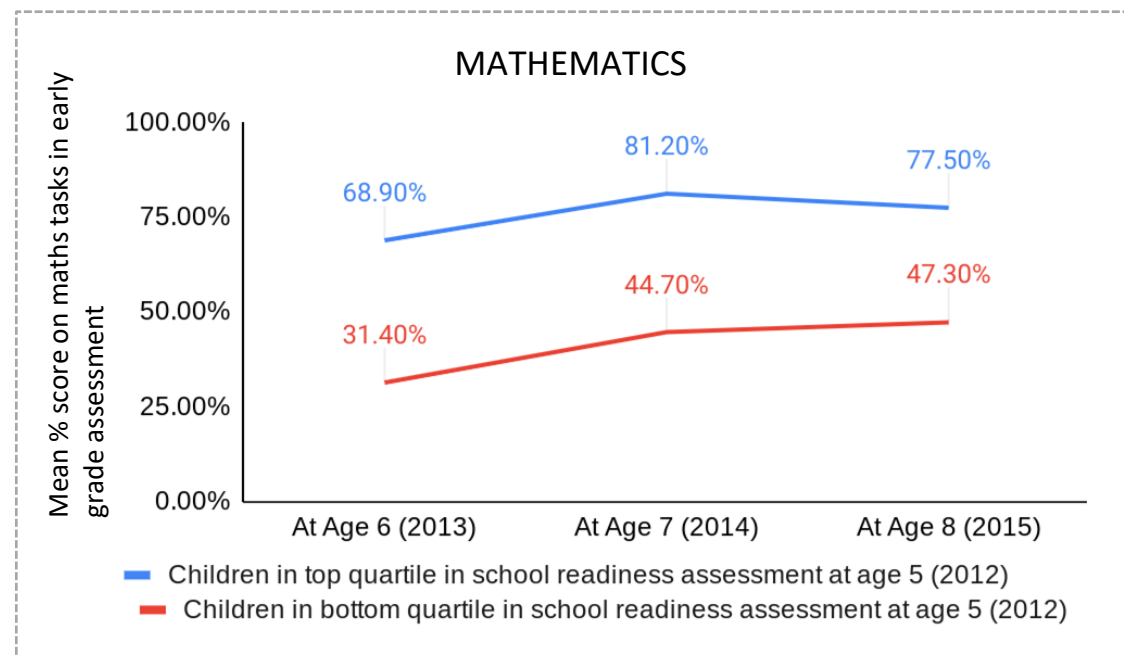


## Children's school readiness levels at age 5+, are strongly associated with learning outcomes in early primary grades, eventually contributing to school completion.

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. **School readiness at the time of entering Grade 1 helps students cope up and perform better.**



Source: Banerji 2017



When children enter school already “behind” or begin to “fall behind” early, it is hard for them to “catch up” later (NCFFS 2022).

Source: Taggart et al. 2015; NCF Foundational Stage 2022



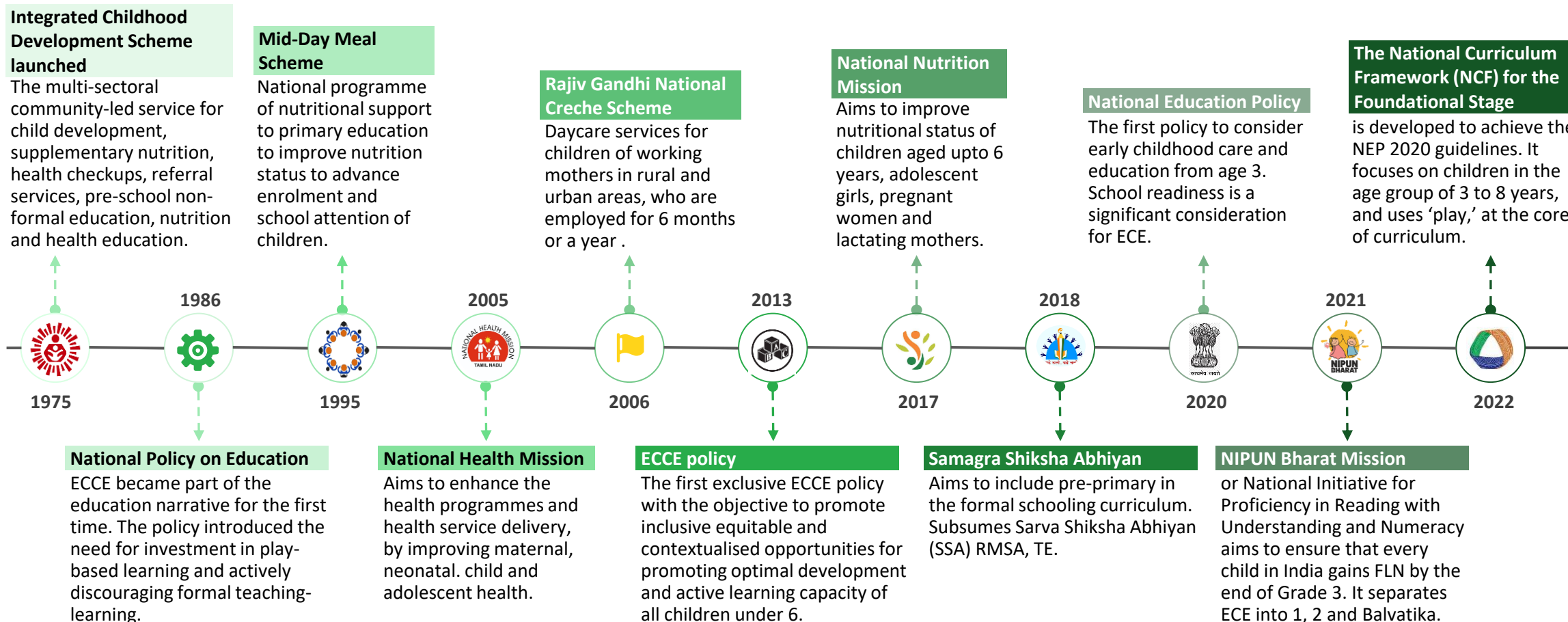
# LANDSCAPE OF SCHOOL READINESS IN INDIA

---



## With the National Education Policy 2020 emphasising preschool education as part of the Nipun Bharat Mission, the nation is gearing towards achieving SDG 4.2 - access to quality early childhood, care and pre-primary education for school-readiness.

Despite this, the provisioning of ECE does not come under the ambit of the Right to Free and Compulsory Education.



**70% of 4-year-olds in India attend a preschool, yet a large proportion of children lack school readiness, pointing to poor quality of provisioning (CECED et al. 2017; NCF 2022).**

School readiness outcomes are alarmingly low, with only 24% of 5-year-olds being able to do a simple listening comprehension task (ASER 2019).

### Pre-Literacy and Language Concepts

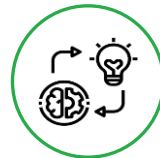
Children were asked to **identify the beginning sound of words and to match two words with same beginning sound.**



only **10.7%**  
could recognise all sounds and pictures  
beginning with same sound.

### Cognitive and Conceptual Concepts

Children were asked to **repeat and complete a pictorial pattern.**



only **17.5%**  
could complete the patterns.

### Pre-Math Number Concepts

Children were asked to **point to a number (among 9,3,7,8) that was less than the number 5.**



Only **29.5%**  
could accurately do number  
comparisons.

**Quality of preschool is also a major determinant** of school readiness levels at age 5.

In India, most children participate in **institutions that fail to use age-appropriate methods, materials, and activities**, leading to low school readiness (Dhavan 2019).

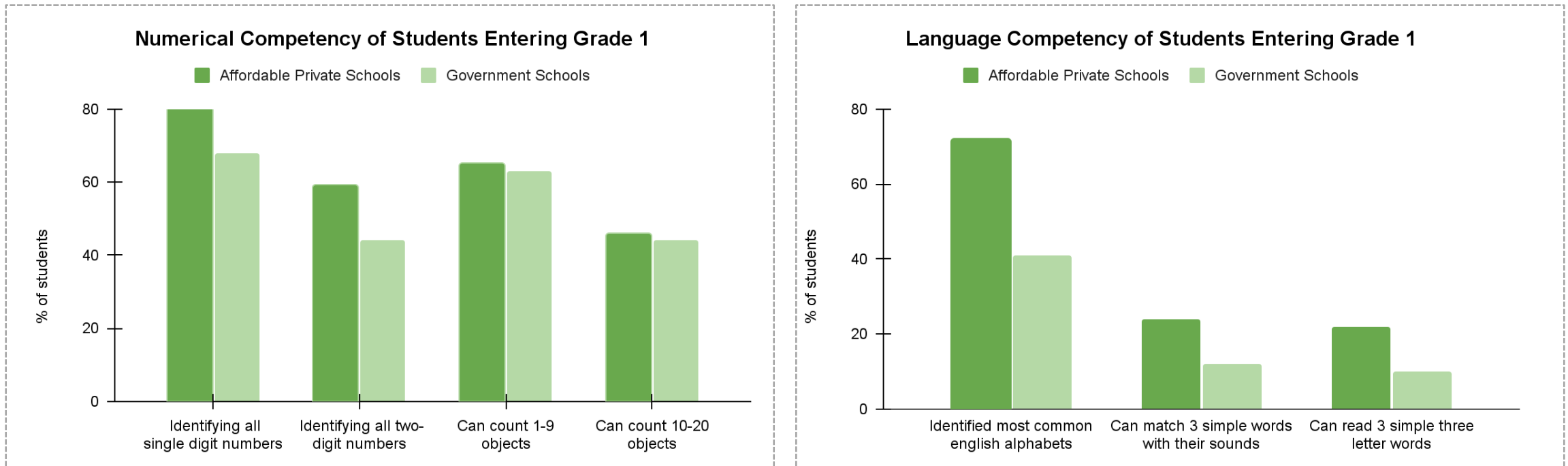
Source: CECED, ASER 2019, Taggart et al. 2015



## A large proportion of students entering Grade 1 in private schools are also not school ready.

- Private preschools have mushroomed in the past decade owing to the demand from parents for affordable 'good' English medium preschools. However, **only 1 out of 5 children in Grade 1 in affordable private schools (APS) can read simple three-letter words.**
- A huge emphasis on rote learnings in these schools hinders the development of critical pre-literacy, pre-numeracy, and executive function skills in children.

### Scenario of school readiness in affordable private and Government preschools



Around **41%** couldn't identify **numbers till twenty**, **96%** children could not frame a coherent **3-word sentence in English**.  
**57%** children could not identify a **cause of sadness** (FSG 2020).

Source: FSG 2020



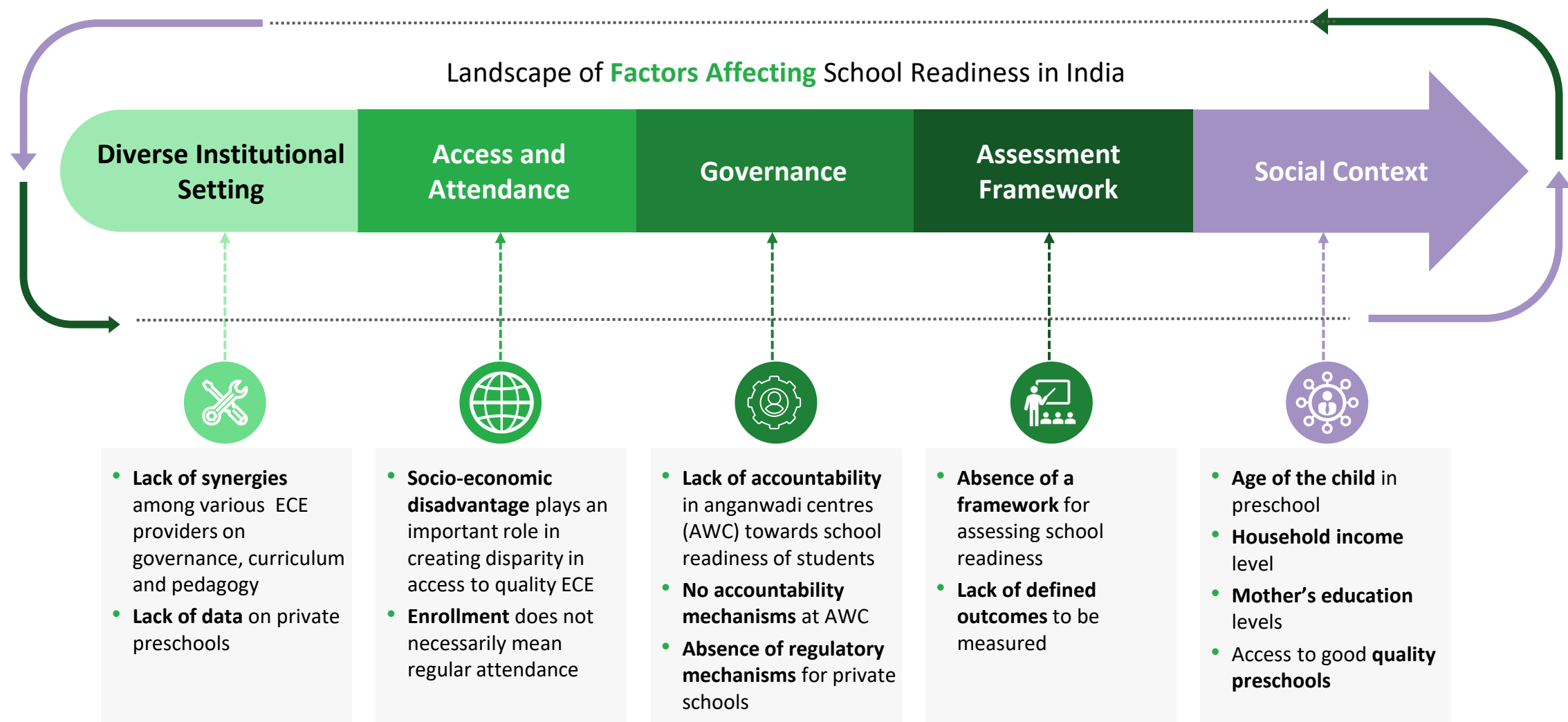
# FACTORS AFFECTING SCHOOL READINESS

---





## A lack of school readiness is the major cause of the learning crisis in India.



**DIVERSE INSTITUTIONAL SETTING:** Private schools which cater to better-off families fail to follow developmentally appropriate curriculum and pedagogy. Meanwhile, Anganwadi Centres that serve disadvantaged communities focus on tackling malnutrition rather than school readiness in preschool students.



### STAND-ALONE PRIVATE PRE-SCHOOL/DAY CARE CENTRES

#### Follow 3Rs and Rote Learning

- 31% of the 3-to-6-year-old are students enrolled in these schools.
- Good infrastructure, but no emphasis on health and nutrition.
- Summative assessment is the most prevalent form of assessing students' learning.



### STANDALONE ANGANWADI CENTRES

#### Lack Focus on School Readiness

- 38% of students are enrolled in AWC.
- Focus on health and nutrition aspects, catering to 0-to-6-year-olds.
- There is absence of play activities and teachers do not prioritise ECE.
- No assessment of school readiness is currently practised.



### NGO-RUN PRE-PRIMARY SCHOOLS

#### Follow Developmentally-appropriate Pedagogy

- No exact data on enrollment numbers - approximate estimate of 3.2 million.
- High community involvement, availability of basic facilities with apt teaching-learning tools.
- Children are regularly assessed by instructors through simple activities and observations, parent involvement.



### PRE-PRIMARY SECTIONS IN PRIMARY SCHOOLS

#### Lack Developmentally-appropriate Pedagogy

- Located within premises of primary school, sharing the primary school's infrastructure.
- Absence of dedicated pre-primary teachers.
- No particular format exists to assess school readiness.

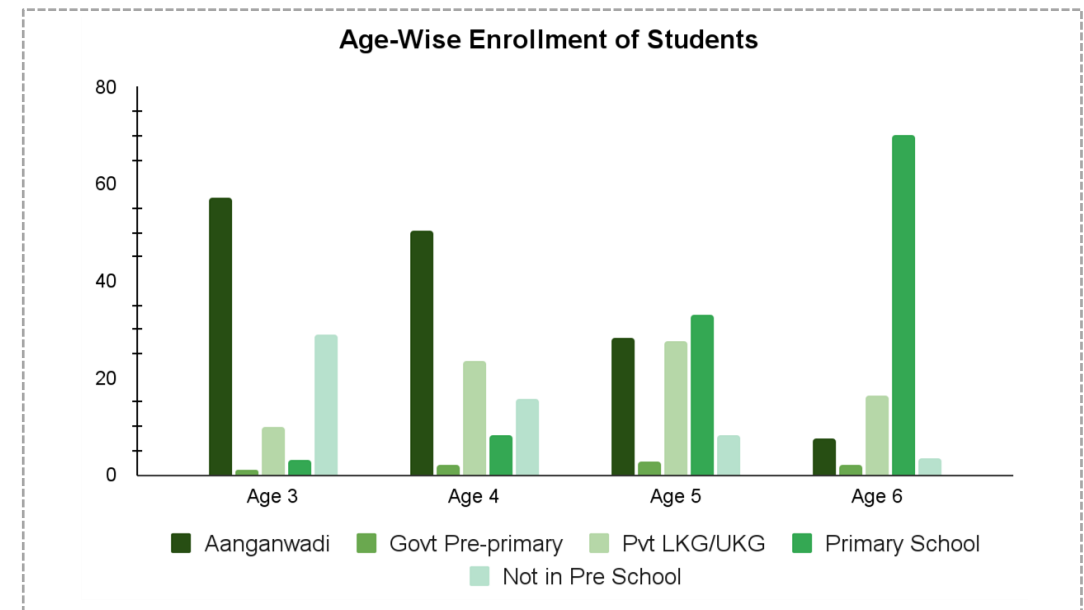
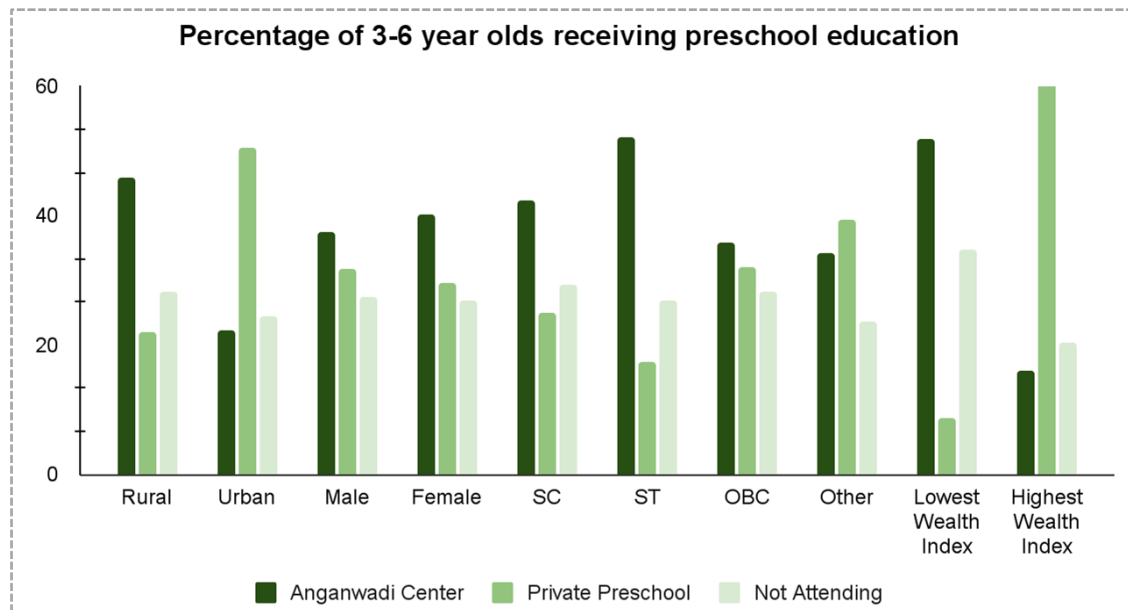
There is **lack of data on the functioning of the private preschool space**, as it still remains largely unregulated in spite of the 2013 ECCE policy recommendation.



## ACCESS: Access to quality preschools and regular attendance is still a challenge in India. Despite 80% enrollment in preschools, children are not developing adequate competencies.

Wide variations in enrollments across states (Uttar Pradesh with the lowest participation at 43.7 % and Karnataka at highest participation of 86.6%)

More children from **rural regions (43%)** and those belonging to **ST (51%) and SC groups (41%)** receive preschool education at AWC, than children from urban regions, better wealth quartiles and Other/General categories. This **creates regional and economic divides in learning levels at an early stages.**



Source : Rao et al. 2021

Of all students admitted in Grade 1, **only 50.9% had preschool experience.** Regular attendance contributes to student readiness, and data reflects preschool attendance was 44% in urban and 39% in rural areas, with the lowest attendance among Socially and Economically Disadvantaged Groups (NCFSS 2022).

**AWCs and primary schools** both have students of varying age groups in a grade, making it difficult to create a common achievement goal. **44% of 4-5-year-olds are already enrolled in primary school**, getting exposed to pedagogy which is developmentally inappropriate (ASER 2022).



## GOVERNANCE: Lack of clarity on what needs to be monitored, and ambiguity on the role of different ministries in ECE implementation gets manifested in poor implementation and evaluation standards.

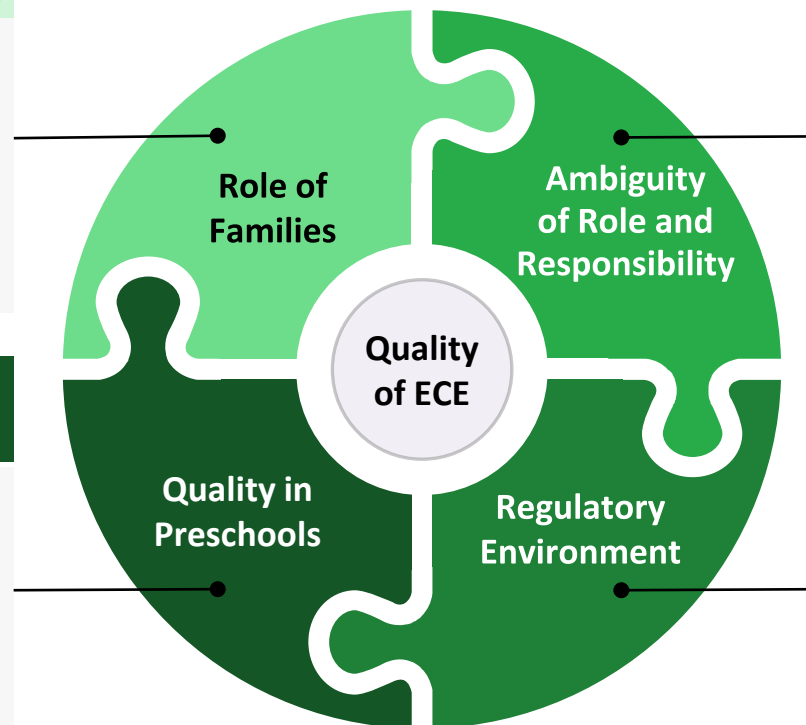
The only ECE-relevant data gathered at AWC is the number of students enrolled, leaving a huge white space for monitoring and evaluation of quality of preschool and school readiness levels of schools, families and the children.

### Absence of parental involvement in governance

- Lack of processes to involve parents with preschools.
- School's inability to build parents' awareness about their role in enabling children's learning.
- Emphasis on rote learning and demand for English medium instructions and 3Rs in teaching.
- Lack of awareness of parents on the extent of children's learning deficit.

### Lack of monitoring and evaluations of processes, curriculum and pedagogy

- Poor infrastructure in AWC, with only 43.4% having toilet facilities and only 32.4% having an electricity connection (Rao 2021).
- Only 34.9% of time in AWC is spent on age-appropriate, play-based learning activities. This share falls to just 11.7% in private preschools.
- No monitoring and data on programme efficiency and quality of teaching learning and compliance with quality standards (NIPCCD 2006).



### Lack of role clarity and goals

- No well-defined parameters for functional efficiency and goals of Anganwadi (UNESCO 2011).
- Ambiguity due to the involvement of two ministries – Ministry of Education and Ministry of Women and Child Development.
- There is lack of coordination and collaboration within the two ministries.

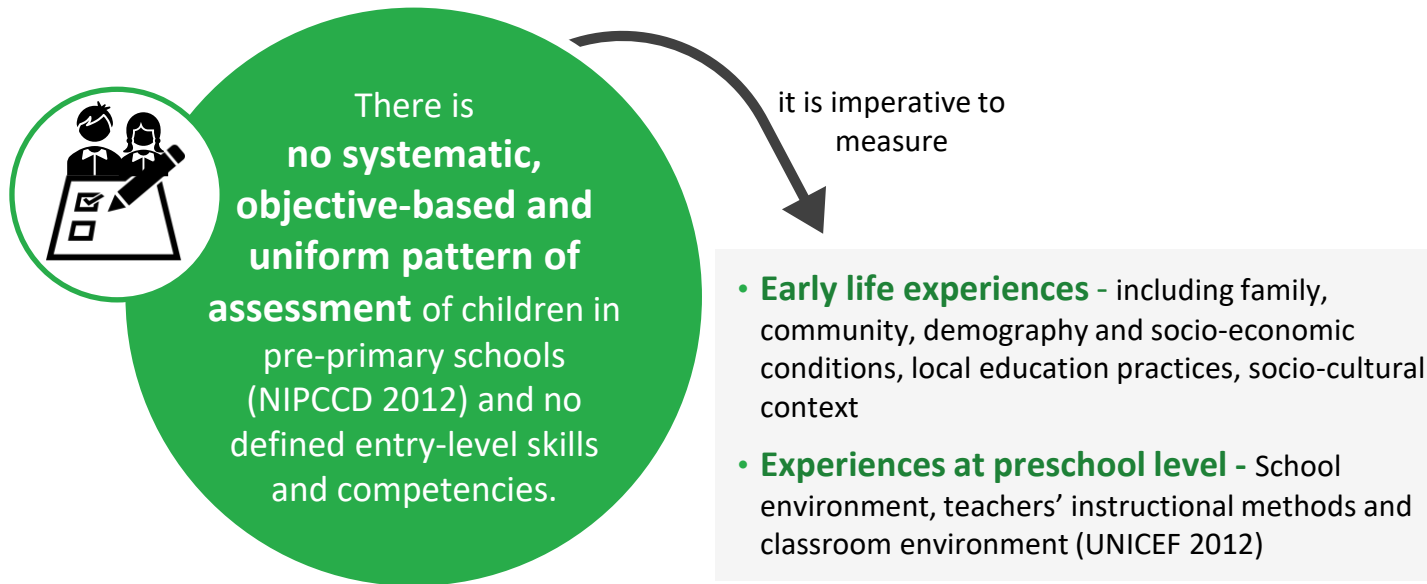
### Lack of implementation of regulations prescribed by ECCE Policy 2013

- 80% of practitioners and teachers are without adequate training in early years learning approaches (CECED et al. 2017).
- Private schools do not come under the regulatory system of the GoI.
- Lack of data and evidence on number of students enrolled, pedagogy and curriculum followed in private unregulated preschools.



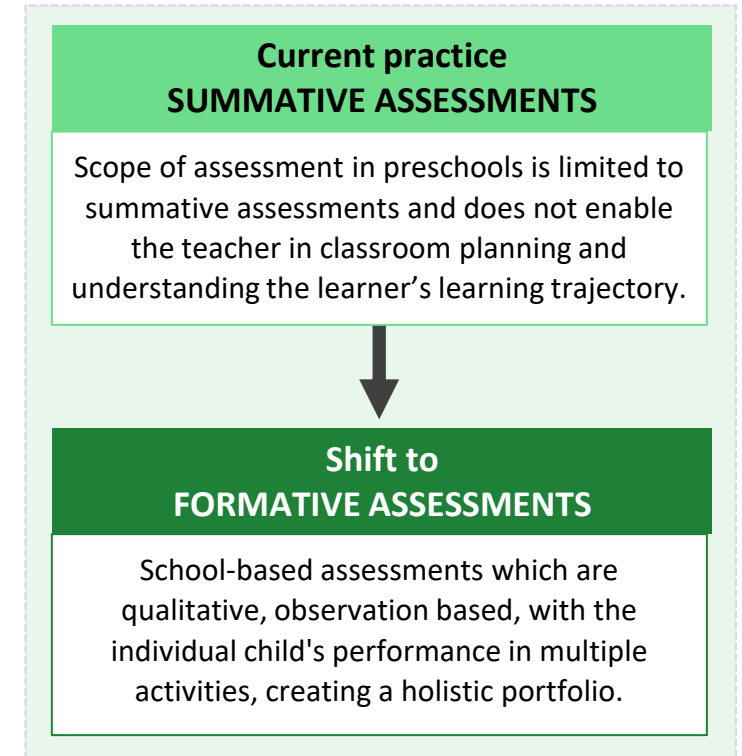
## Assessing school readiness: While there is no standardised measure of school readiness, the World Bank and UNICEF have outlined frameworks for measuring its components.

Ambiguity exists in terms of assessing school readiness, as the World Bank recommends measuring a child's readiness levels on six aspects, whereas UNICEF insists on assessing school, family and child readiness.



**NIPUN Bharat guidelines** focus on 'School Readiness' for **Grade 1 children**, with clear focus on involving parents in the learning process and applying formative assessment measures.

**Building a standardised framework to measure the school readiness among preschool students is difficult** due to inconsistencies in age group of students studying in the preschools and differing individual competencies (NCFFS 2022).



## Social Context: Research suggests household affluence, age of the child, early learning environment at home and mother's education along with the gender and caste contribute significantly to school readiness.

Children who attended higher quality preschools showed better school readiness than those who attended lower quality preschools (UNESCO 2015).



SOCIAL CONTEXT



Children from families in the highest wealth quintile (80%) were more likely to be attending preschool than those from the lowest wealth quintile (65%) (Rao 2015); **60.3% girls at age 4** were in government pre-schools/schools **as compared to 55.7% boys** as parents believe english medium private schools are better than AWC, thus making gender a reason for investing less in girls (ASER 2019). Research from low- and middle-income country (LMIC) indicates that most children, especially those from **low socioeconomic backgrounds, start primary school with poor readiness competencies** (UNESCO 2017).



Close to **40% of the associations between economic disadvantage** and young children's lower academic performance are explained by the **lower quality of home learning environments** (Magnuson 2004). Most parents see play as separate from education and value formal education over play, perceiving it as a pathway to a better future (ASER 2019).



Around **44% of children are enrolled in Grade 1** before the age of 6, due to a lack of any suitable pre primary school options (and limited ECCE); these children also lag behind in primary school and beyond (NEP 2020). The difference in a 5-year-old's ability to recognize numbers can be up to 30 percentage points less than that of an 8-year-old which can be a cause for them to remain academically behind others through their school life (ASER 2019)



A study (Sharma 2020) on the **impact of gender and caste on school readiness** levels and attendance, revealed **significant difference among male and female children's school readiness levels** on the three dimensions of numeracy, cognition and language, with male children performing better on all three. Research predicted 33% increment in the school readiness level due to attending ECE programme regularly. The study also highlighted more irregularity in attendance and lower school readiness among girls and students belonging to castes other than General category castes. National level research on the role of mothers' education levels in acquiring school readiness emphasised that less than half (47%) of children whose mothers did not complete high school are school ready, compared to 83 percent of children whose mothers have a bachelor's degree in US (Magnuson 2011).

Given the high rates of poverty, gender discrimination, and regional disparity in India, **a concerted effort has to be made to address access, equity, and the quality of preschool provision for poor households** to ensure that the country can meet the SDG Target 4.2.



# CHALLENGES IN ACHIEVING SCHOOL READINESS

---





# Systemic issues impede the readiness of schools in India.

## Challenges arising due to LACK OF SCHOOL'S READINESS

1



### Lack of Governance Mechanisms

- Lack of **clarity on goals** for preschool education.
- No standard **monitoring & assessing mechanisms** or indicators to understand efficient functioning of anganwadi.
- **ECE in anganwadi** is tracked through number of student enrollments and **no other indicator is monitored** to bring teacher accountability towards school readiness.

2



### Budget & Infrastructure

- **Low facilities, budget and wages** for government and private school teachers.
- **Lack of career progression and growth** for pre-primary teachers.
- **Dearth of resources** like teaching tools in AWC and play-based activities for learning in both government and private schools.

3



### No Regulatory Mechanisms

- **Lack of coordination** between the Ministry of Women & Child Development and the Ministry of Education.
- **No defined goals and regulations** for pedagogy and curriculum to be followed.
- **AWC acts as a feeding place** and private school as an extension of primary school, with low focus on school readiness.

4



### Lack of Teacher Training

- The **difference in training** of private preschool teachers (with minimal or no training in ECE), and anganwadi teachers (who have no formal on-the-job training) leads to variation in student outcomes.
- **Lack of teachers' capability to convince parents** regarding developmentally-appropriate curriculum and pedagogy.

There is an urgent need to strengthen the governance and implementation capacity of the pre-primary system across all levels of government.





# Parents need to be engaged and made aware about their role in contributing to children's school readiness.

## Challenges arising due to LACK OF FAMILY READINESS

1



### Parental Involvement with child

- **Work demands** leave parents with little time and energy to engage with their children.
- **Lack of books and other materials** at home hinder parents' ability to engage with the child's learning.
- **Illiteracy of mother** hinders contribution at home towards school readiness.

2



### Parent and School Engagement

- **No feedback mechanisms** exist for parents to be engaged with preschool activities especially at anganwadi centres.
- **School does not provide any handholding for parents'** enablement for home learning activities.

3



### Low Awareness Levels

- Parents lack awareness on the **appropriate pedagogy for achieving school readiness**
- They do not expect **ECE from AWC** and consider them as daycare, and demand 3Rs and rote learning from private schools.
- Parents are also **unaware of the extent to which their child is lagging behind.**

4



### School Readiness Goals

- Parents are less sensitised on **what to expect from the children at the preschool level.**
- Parents primarily expect children to learn to read and write in preschool, and hence **push for rote learning.** The areas of hygiene, obeying commands, learning to sit etc. are less frequent expectations of parents from the preschool education.



# Assessment tools and methodologies need to be evolved to be contextually relevant, reliable, and fair for measuring school readiness levels.

## Challenges in ASSESSING THE CHILD'S SCHOOL READINESS

1



### Lack of Comprehensive Assessment Tool to Assess School Readiness

- Due to **lack of regularisation of private preschools**, different types of preschools use different curriculum and pedagogy, posing a challenge to the creation of an appropriate assessment tool for all students.
- **Different age groups ranging from 4 to 7 years are in one grade**, hence difficult to assess all students with different competencies
- **Ensuring standardisation and reliability of assessment tools** that work across diverse settings of culture, language and populations is crucial for obtaining accurate and comparable results to guide teaching practices.

2



### Teacher Training and Capacity

- **Absence of formats and processes** for creating a mindset shift for teachers to move from summative to formative assessment.
- **Building teachers' capability** to assess parents' and children's school readiness and building children's portfolios.

3



### Time and Resource Constraints

- **Teachers in anganwadi centres spend time in maintaining health records** of children and deprioritising academic play-based activities with children.
- **Absence of adequate teaching learning tools** to engage meaningfully with children and gauge their progress.



# REFERENCES

---



- [Accountability in education: meeting our commitments; Global education monitoring report, 2017/8](#), UNESCO Digital Library.
- [Annual Status of Education Report \(Rural\) 2019 'Early Years'](#), ASER Center.
- Banerjee, AV and Duflo, E 2011, '[Why Aren't Children Learning](#)', *Development Outreach*, vol. 13, no. 1, pp. 36–44.
- Banerji, M 2017, [The India Early Childhood Education Impact Study](#).
- Chandra, R 2017, '[School Readiness in India Perspective, Initiatives, Practice and Approaches](#)', *Journal of Indian Education*.
- CECED, ASER and UNICEF India 2017, *Indian Early Childhood Education Impact Study*.
- DHFL Changing Lives Foundation and Sattva Consulting 2019, [ECCE CSR Landscape in India and its Potential for Impact](#).
- Fitzgerald, D 2020, [Children in PIPE APSs Increase Scores](#), FSG.
- FSG 2020, [Program to Improve Private Early Education \(PIPE\)](#).
- Dhawan, A and Krishnan, S 2019, [Annual Status of Education Report \(Rural\) 'Early Years'](#), pp. 13–16.
- Gjelij, M and Shala, M 2014, '[The Relationship between Parents' Level of Education and Children School Readiness regarding Socio-emotional, Cognitive and Motor Development Domains](#).', Conference: *International Scientific Conference: "Democracy in Southeast Europe"*, Tetovo, Macedonia, vol. 4.
- Nurturing Care 2021, [Nurturing Care Framework for Early Childhood Development](#), Country Profiles for Early Childhood Education.
- International Bureau of Education 2012, [World Data on Education](#).
- Issac, J and Magnuson, K 2011, [Income and Education as Predictors of Children's School Readiness](#), The Social Genome Project, Center on Children and Families in Brookings.
- Kaul, V and Sankar, D 2009, '[Early childhood care and education in India](#)', [Education for All Mid-Decade Assessment](#), National University of Educational Planning and Administration (NUEPA), New Delhi, India.
- Kundu, P et al. 2022, [Cost Of Universalising Early Childhood Education In India](#), Save the Children, India.
- Magnuson, KA et al. 2011, [Income and Education as Predictors of Children's School Readiness](#), The Social Genome Project, Centre for Children & Families, Brookings.
- Marope, PTM and Kaga, Y 2015, [Investing against evidence: the global state of early childhood care and education; Education on the move](#).
- [National Curriculum Framework for Foundational Stage 2022](#) 2021, National Council of Education and Research Training.
- Department of School Education & Literacy 2021, [National initiative for proficiency in reading with understanding and numeracy: guideline for implementation](#), Ministry of Education, Government of India, New Delhi.
- National Institute of Public Cooperation and Child Development (India) 1996, [Research on ICDS- An Overview 1986-95](#), UNESCO Digital Library.



- National Institute of Public Cooperation and Child Development (India) 2006, [Select issues concerning ECCE India](#), UNESCO Digital Library.
- Ou, SR and Reynolds, AJ 2008, '[Predictors of educational attainment in the Chicago Longitudinal Study](#)', *School Psychology Quarterly*, 23(2), pp. 199–229.
- Pimenta, SM and Sosu, EM 2023, '[Early childhood education attendance and school readiness in low- and middle-income countries: The moderating role of family socioeconomic status](#)', *Early Childhood Research Quarterly*, vol. 63, pp. 410–423.
- Rao, N. et al. 2021, '[Fostering equitable access to quality preschool education in India: challenges and opportunities](#)', *International Journal of Child Care and Education Policy*, vol. 15, no.1, p. 9.
- Rao, N and Sun, J 2015, '[Quality early childhood care and education in low resource level countries in Asia](#)' in PTM Marope & Y Kaga (Eds.) *Investing against evidence: The global state of early childhood care and education*, pp. 211–230, UNESCO.
- Rao, N, Ranganathan, R, Kaur, R and Mukhopadhyay, R 2021, '[Fostering equitable access to quality preschool education in India: challenges and opportunities](#)', *International Journal of Childcare and Education Policy*, vol. 15.
- Chandra, R 2017, '[School Readiness in India Perspective, Initiatives, Practice and Approaches](#)', *Journal of Indian Education*.
- Reynolds, AJ 2019, '[The power of P-3 school reform](#)', *Phi Delta Kappan*, vol. 100, no. 6, pp. 27–33.
- Sharma, M and Hussain, A 2020, '[Role of Caste and Gender in School Readiness among Children Attending Early Childhood Education \(ECE\) Programme in India](#)', *Journal of Social Research and Policy*, vol. 10.
- Shrivastava, S et al. 2019 '[Assessment of school readiness of children and factors associated with risk of inadequate school readiness in Ujjain, India: an observational study](#)', *BMJ Paediatrics Open*, vol. 3, no.1, p. e000509.
- Sood, M n.d., [Research on ICDS: An Overview \(1986-1995\)](#), National Institute of Public Cooperation and Child Development, vol. 2.
- Sparling, J, Ramey, SL and Ramey, CT 2021, '[Mental Health and Social Development Effects of the Abecedarian Approach](#)', *International Journal of Environmental Research and Public Health*, vol. 18, no. 13, p. 6997.
- Economist Intelligence Unit 2012, [Starting well: Benchmarking early education across the world](#).
- Taggart, B et al. 2015, [Effective pre-school, primary and secondary education project](#), UCL Institute of Education, University College London, Birkbeck, University of London, University of Oxford.
- UNESCO 2017, [Accountability in Education-meeting our commitments](#), Education for All Global Monitoring Report.
- Weltbank (ed.) 2018, [Learning to realize education's promise](#). Washington, DC, USA: World Bank Group.
- Young Lives India 2020, [The Young Lives Longitudinal Study](#).



