Annual Status of Education Report

AGE 4-8 असर ASER 2019 RURAL

Facilitated by PRATHAM

ASER 2019
'Early Years'

Main findings

26 districts (Rural)

Why ‘Early Years’ ASER?

The RTE Act 2009 mandates that children should enter Std I at age 6. It recommends states provide free pre-school education to children age 3-6.

However, existing data and studies show that ground realities are different from policy norms as far as age of entry to Std I is concerned.

The draft National Education Policy (NEP 2019) points out that part of the “learning crisis” in elementary school happens even before children enter Std I. This may be because:

- Too many children enter formal schooling before age 6
- Too many children enter formal schooling without exposure to early childhood education and therefore lack readiness for school.
- When children enter school already “behind” or begin to “fall behind” early, it is hard for them to “catch up” later.

No large-scale representative data is available on children in this age group.

Hence, it was decided that ASER 2019 would focus on the age group 4 to 8 and explore key dimensions of schooling and learning that potentially shape the future pathways of children.

ASER 2019 ‘Early Years’: Age group 4 to 8. What was done?

ASER ‘Early Years’ exercise focusses on children in the age group of 4-8 years:

- What are young children doing? Are they enrolled in pre-school/school?
- Are they ready for school? How do they perform on pre-school and academic tasks?

Children were assessed on four domains of development:

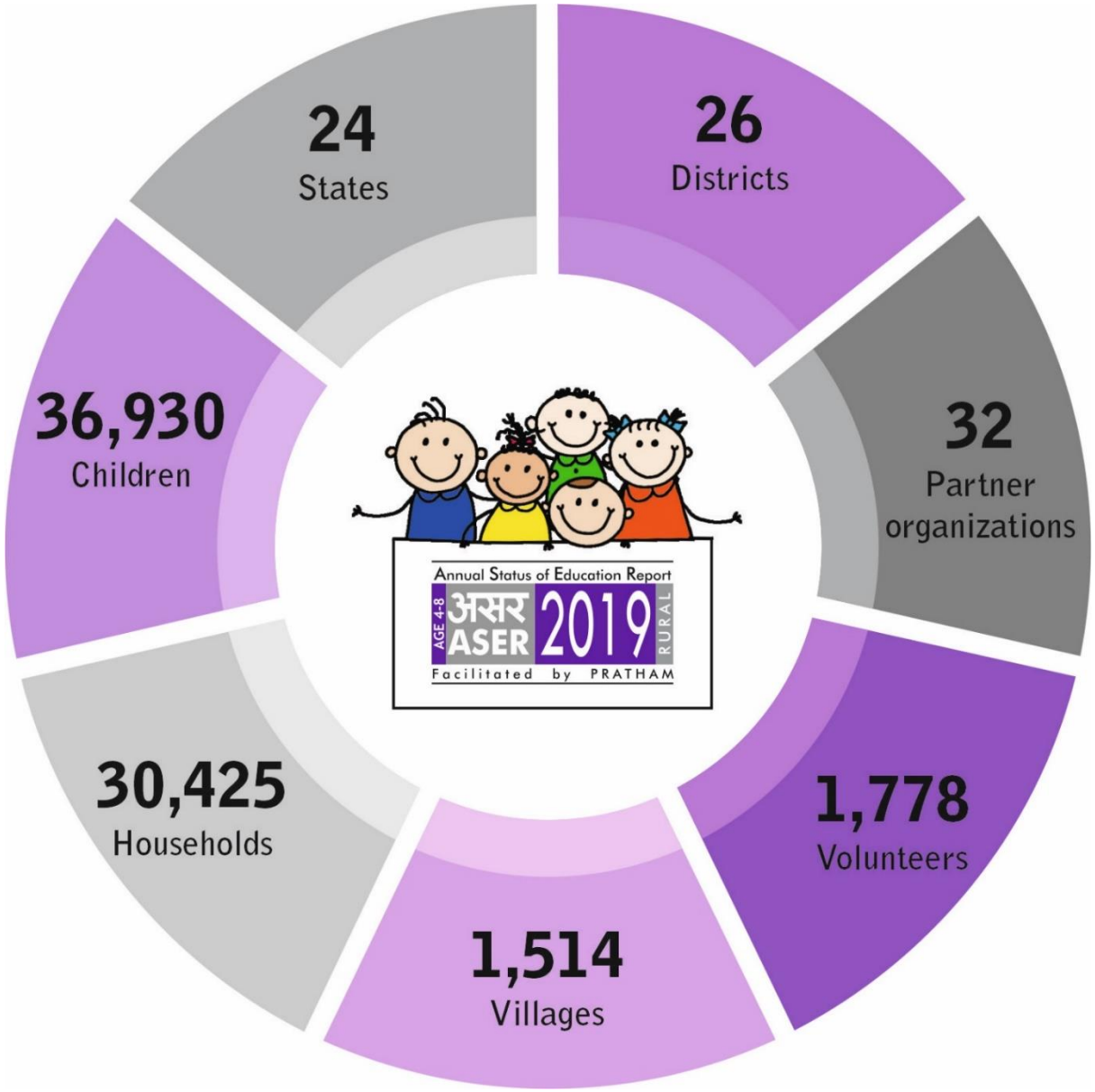
Cognitive: Can children sort by color? Do they have spatial awareness? Can children order by size? Can they recognize patterns? Are they able to solve a puzzle?

Early language: Do children know how to describe what they see in a picture? Can they understand a story that is read out to them? Are they able to read letters, words, texts? Can they answer simple questions based on the content they read?

Early numeracy: Can children count objects? Can they compare them? Can they recognize 1-digit and 2-digit numbers and compare them? Do they know how to do simple numeric problems based on these numbers? Are they able to apply these concepts in day-to-day situations?

Social and emotional: Can children identify emotions and regulate them? Can they resolve a situation of conflict? Do they empathize with others?

‘Early Years’: Coverage and Key features. Where was ASER done?



WHERE

Household survey of a representative sample of children in rural India. One district per state surveyed, except Uttar Pradesh and Madhya Pradesh (2 districts surveyed)

HOW

Sampling using Census 2011 frame.

- 60 villages randomly selected in each district
- 20 households with children age 4-8 randomly selected in the village
- All children age 4-8 surveyed and tested

WHO

- District level organizations or institutions conducted this ASER
- Colleges, universities, NGOs and teacher training institutions

Contents

- Enrollment trends: Age 4-8
- Young children: Age 4-5
- Children in Std I
- Children in early primary grades: Std I II III
- Mothers' schooling and children's learning

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Are children enrolled in pre-school or school?

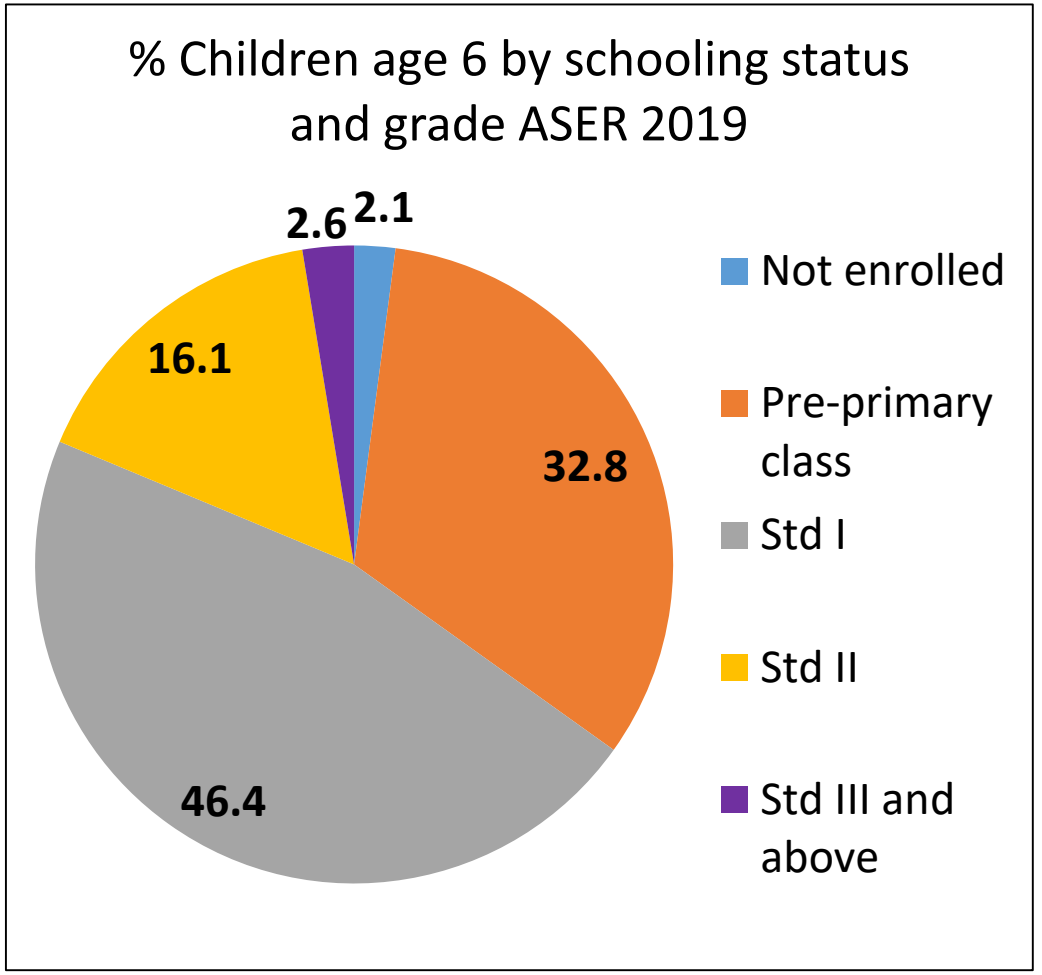
High enrollment across ages

- Of all children age 4-8, more than **90%** are enrolled in some institution in **every** age group.
- In most districts, there is a small percentage of children still not enrolled anywhere in the age group 4 or 5 (for example, Lucknow, Varanasi, Nalanda and Satna)

Many options of where children can be enrolled in age 4-8

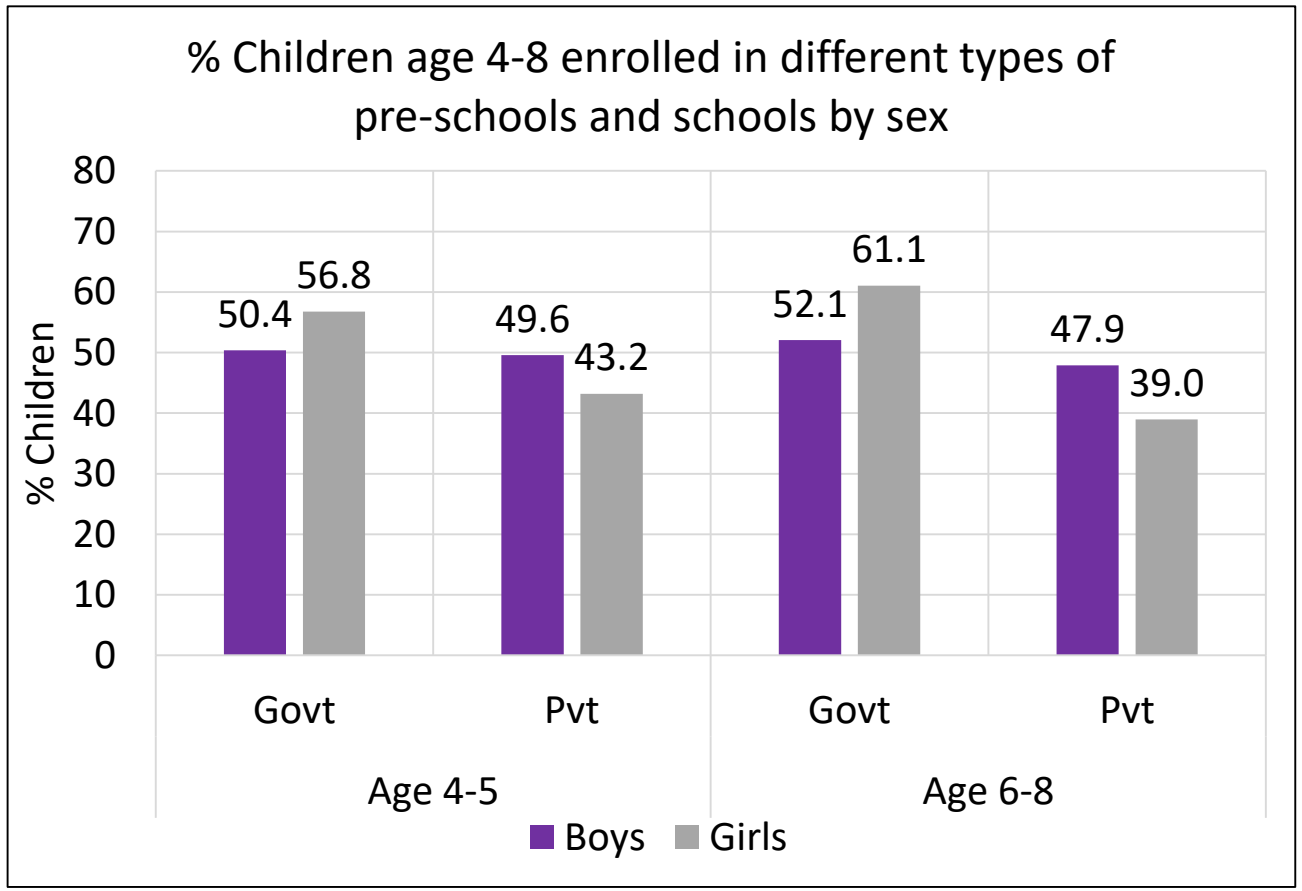
- There are are many options for enrollment of this age group – anganwadi, govt pre-primary, private UKG/LKG, govt school & private school
- Within each age group, there is wide variation in where children are enrolled in terms of:
  - Level of institution – preschool or school
  - Level of grade – pre-primary, Std I or II
  - Type of institution – government or private
- Example of children at age 6 given here

*Government pre-schools include anganwadis and government pre-primary classes.



Pre-primary classes include anganwadis, government pre-primary classes and private LKG/UKG.

More girls in government institutions compared to boys



Across this entire age group, more girls are enrolled in government pre-schools and schools and more boys are enrolled in private LKG/UKG and private schools.

Govt refers to anganwadis, government pre-primary classes, and government schools. Pvt refers to private pre-schools (LKG/UKG) and private schools.

Young children (age 4-5): What activities did children do?

Cognitive Tasks

Cognitive tasks including:

- Sorting objects by colour
- Spatial awareness via pictures
- Seriation of objects of different sizes
- Pattern recognition with shapes
- Puzzle (4 piece & 6 piece)

Counting and relative comparison

Early math tasks:

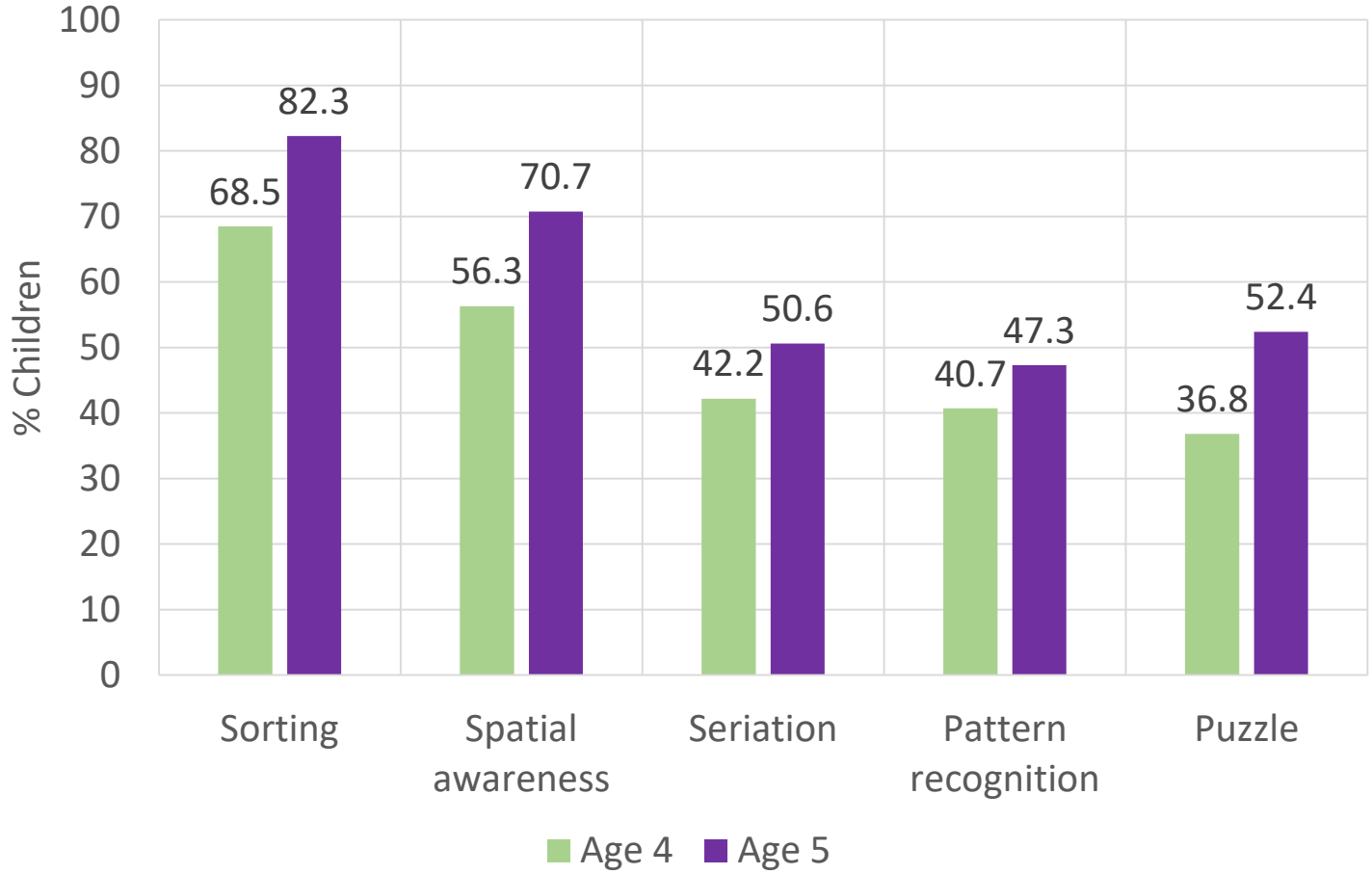
- Counting objects
- Relative comparison of objects

Picture description

Early language tasks:

- Picture description
- Listening comprehension task

Age 4-5: Young children and cognitive tasks. “Ready” for school?



School “readiness” has many dimensions. For example, in pre-school years, children develop a range of cognitive abilities.

Age matters:

Young children’s ability to do any of the **cognitive tasks** improves substantially with **age**.

These findings are true for both early numeracy and early language tasks.

Many 4 & 5-year old children are able to comfortably do several of the cognitive activities.

High cognitive skills & better performance in early language & math

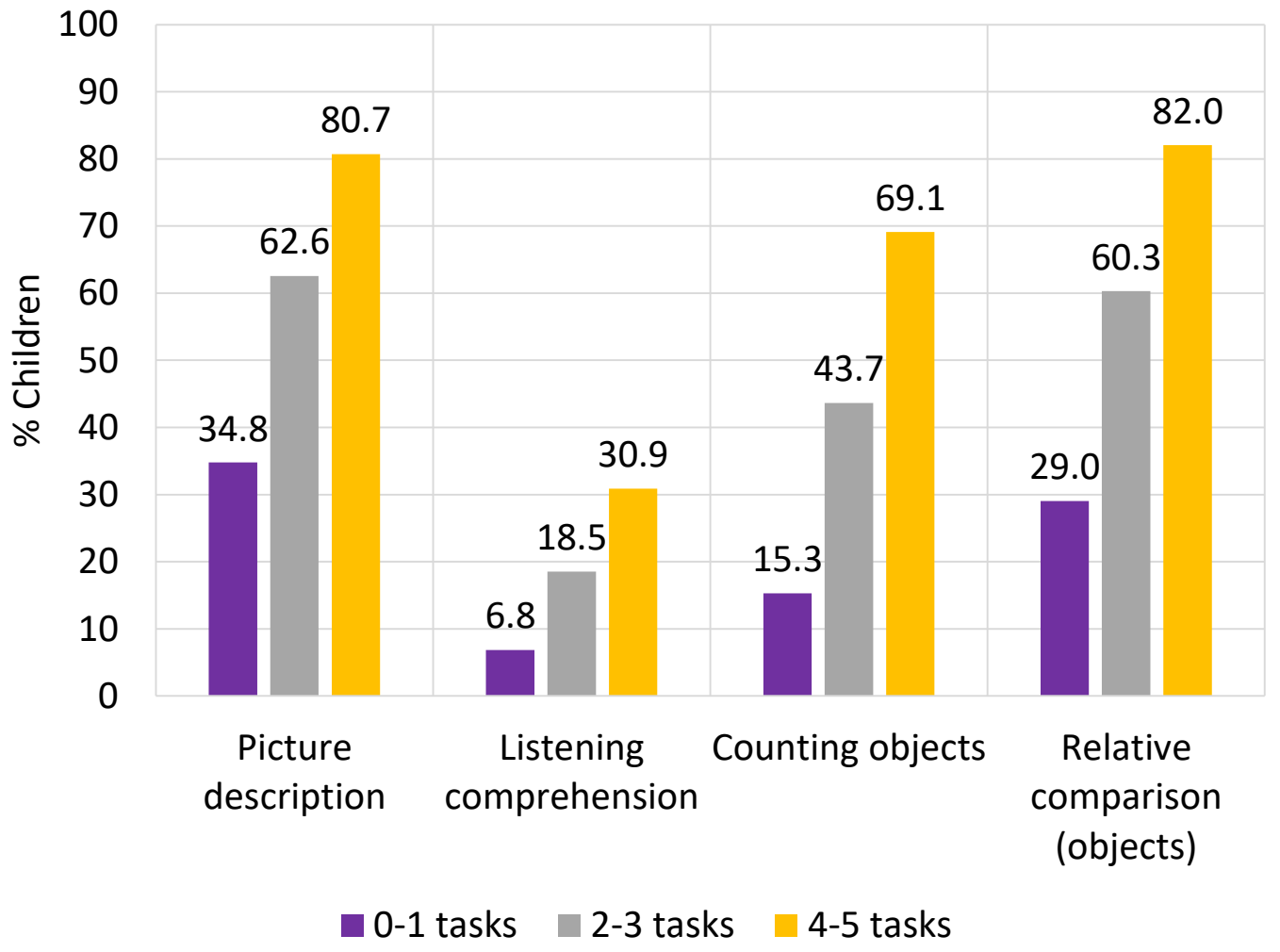
For both age 4 & 5:

- Children's performance on **cognitive tasks** (like sorting, spatial awareness, seriation, patterns, puzzles etc.) is **strongly related** to how well they can do **early language tasks** (like picture description & listening comprehension) and **early numeracy tasks** (counting objects or comparing objects)

- Those who were better at cognitive tasks are more likely to be better at other tasks as well.

This suggests the need to strongly encourage play-based activities that develop cognitive abilities in pre-school years.

Relationship between performance on cognitive tasks and early language and numeracy tasks for children **age 5** (in pre-school)



Std I: How old are children in Std I?

% Children in Std I by age and school type: All districts ASER 2019			
Age	**Government schools**	**Private schools**	**All**
4	3.1	2.6	2.9
5	23.0	13.1	19.0
6	43.5	38.9	41.7
7	25.3	32.8	28.3
8	5.1	12.6	8.1
Total	100	100	100

Std I age distribution is different in different kind of schools

Looking at all districts together, Std I in government schools & private schools:

- Children under the **age of 6**:
  - 26.1% govt schools
  - 15.8% private schools
- Children above the **age of 6**:
  - 30.4% in govt schools
  - 45.4% in private schools

Differences in age distribution may be one of the reasons for the difference in performance of government schools and private schools.

% Children who are able to recognize at least letters	
Age	**%**
Less than 6	37.4
Age: 6	59.1
Age: 7 & 8	76.5

Early numeracy in Std I: Numerical vs conceptual

For children in Std I, there is data on several types of tasks including:

- Early math tasks like counting objects, comparing objects, oral word problems
- Basic math tasks with numerals like recognizing and naming numbers up to 9, numeric addition & subtraction

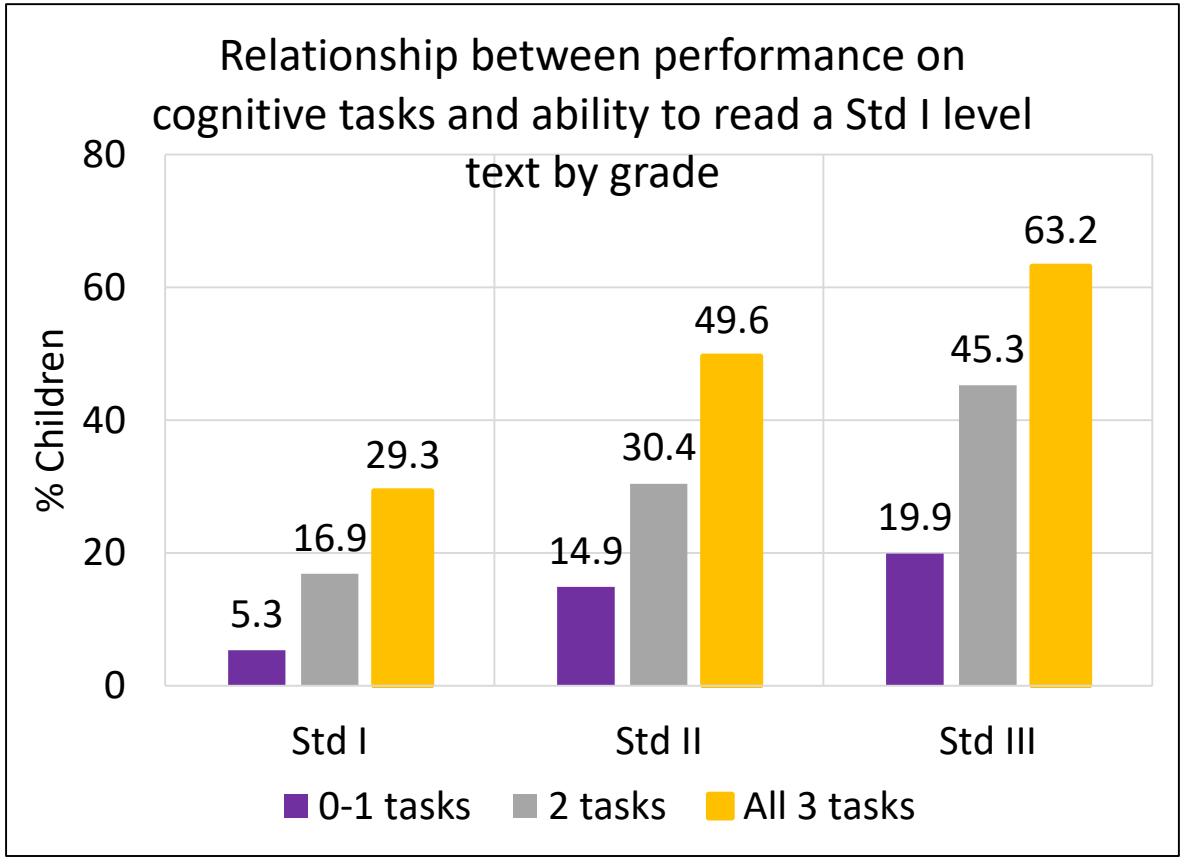
% Children in Std I who can do 1-digit numeracy tasks by age					
Age	**Number recognition**	**Oral addition**	**Numeric addition**	**Oral subtraction**	**Numeric subtraction**
Age 4 & 5	51.9	22.2	25.6	21.1	18.0
Age 6	74.0	35.6	48.1	30.5	35.4
Age 7 & 8	86.5	53.5	66.9	44.2	55.4
All in Std I	74.1	39.5	50.6	33.7	39.4

- Older children do better than younger children. About half of all 7- & 8-year-olds can do a 1-digit numerical subtraction problem correctly. Why is this figure not higher?
- Std I children do better on numerical tasks as compared to oral word problems irrespective of age.
- There is a need for more “talk” and “discussion” in early grades so that children learn to apply what they know.

Std I to III: Learning level of children in early primary grades

% Children in Std II & III who can do different tasks by age. All districts ASER 2019						
Reading				Arithmetic		
Can read Std I level text				Can do 1-digit oral subtraction problem		
Std	Age 7	Age 8	All	Age 7	Age 8	All
Std II	34.5	43.1	34.8	51.7	59.1	51.4
Std III	46.1	53.4	50.8	57.8	69.6	66.0

- Children's foundational skills improve in each subsequent grade.
- But even by Std III, a substantial percentage of all children are well behind where they are expected to be by end of Std I.



A focus on "breadth of skills" and activities that strengthen cognitive skills rather than formal subject learning in the early years may generate substantial benefits for children's later academic performance.

Social and emotional development: An important domain

- Social and emotional development involves the ability of children and adults to understand and cope with their emotions, establish and maintain relationships and make responsible decisions.
- It is especially important in the early years, when children are transitioning to or adjusting to a formal school environment. Research indicates that these skills are correlated with children's cognitive development.

Emotion identification:
4 cards showing different emotions. Child is told about an emotion and asked to point to the card that best matches that emotion.

Situation to emotion matching :
4 hypothetical situations. Children are told a situation and asked to point to the card that best characterizes how they feel in that situation.

Situation-reaction assessment:
2 hypothetical situations:
Conflict: You had one toy. Your friend took it away.
What would you do?
Empathy: You had a toffee. Your friend's toffee fell down. What would you do?

Social and emotional development: Tasks with young children

One example of social emotional task and young children

- Emotion identification is the foundation of social and emotional development.
- Child is given an emotion and asked to point to the card that best matches the emotion.
  The emotions are happy, sad, angry and afraid.

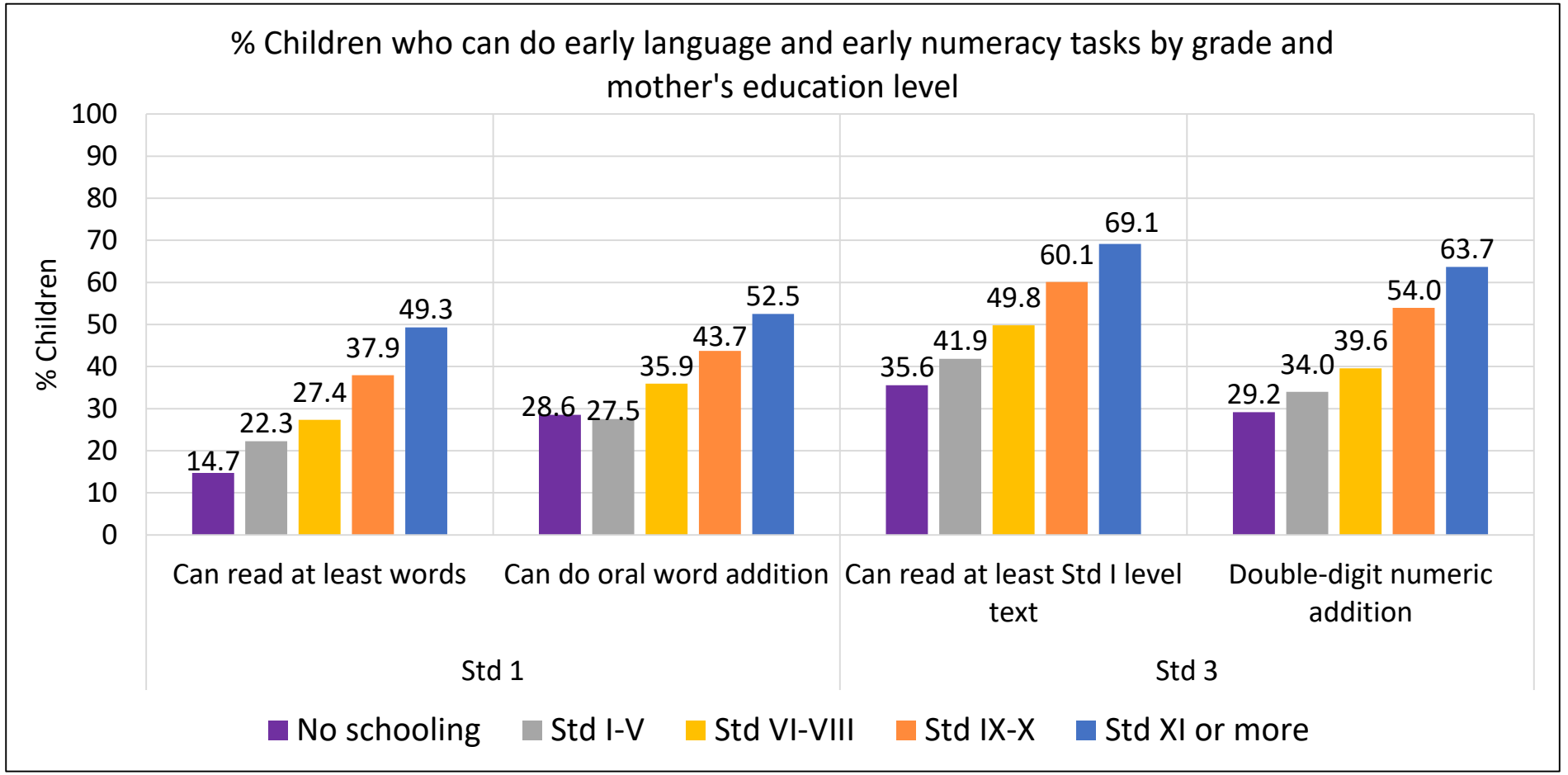
Emotion cards used for the task

% Children age 4-8 who can correctly identify emotions					
Age	**Happy**	**Sad**	**Angry**	**Afraid**	**All 4 emotions**
Age 4	62.2	43.3	47.7	47.4	24.0
Age 5	72.3	50.1	57.4	55.8	33.6
Age 6	77.6	56.7	67.2	66.1	44.6
Age 7	82.0	62.8	73.7	73.3	54.0
Age 8	83.8	68.2	78.0	78.6	60.5

Happiness is the most easily identified emotion.
At age 4, only one out of four children can identify all four emotions.
Even at age 8, close to 40% children cannot identify all emotions correctly.

Educate mothers, educate children

% Mothers by education level in ASER 2019 sample	
No schooling	22.7
Std I-V	12.2
Std VI-VIII	18.3
Std IX-X	24.2
Std XI or more	22.7
Total	100



- Mothers' schooling level is highly correlated with where are young children are enrolled. Children whose mothers have 8 or less years of schooling are more likely to be enrolled in anganwadis and government schools as compared to children whose mothers have studied further.
- Children's performance on tasks in all domains is positively related to their mother's education level.

Thinking ahead

Expand and strengthen the existing network of anganwadi centres

- Increase outreach: ICDS already has an extensive outreach hence bringing in more children is possible.
- Strengthen ECD & ECE components in anganwadis. School readiness needs higher priority.

Review & revisit state and national norms for entry into Std I & expectations from Std I children

- State and national policy on age of entry into Std I are in place. But ground realities are often different. Each state needs to look at the policy vis-à-vis actual patterns of school enrollment to reconsider policy.
- Older children have an advantage. Hence, early enrollment into formal schooling ought to be discouraged.
- Given variation in age distributions in Std I & variation in preschool exposure, curriculum and learning outcome/goals need to be modified so that they are achievable. Children cannot "fall behind" in Std I.

"Breadth of skills" is important. Age 4 to 8 should be considered as a continuum.

- Breadth of skills includes cognitive activities, attention to social-emotional skills. These are needed in addition to language & early math. Subject-wise academic learning too early can be counter productive.
- Age 4 to 8 (i.e. pre-school and early grade years) need to be looked at as a continuum. Progression is needed in terms of expected outcomes, instructional approach, materials and assessment. Instructors, teachers as well as those who support them need to be equipped accordingly.

Mothers, family members and community - all can help children to grow and thrive

- Active participation in pre-school & school. Widespread awareness about breadth of skills is needed.

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Every Child in School & Learning Well

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