ASER 2019 'Early Years' – National findings

ASER 2019 'Early Years' was conducted in 26 districts across 24 states in India, covering a total of 1,514 villages, 30,425 households, and 36,930 children in the age group 4 to 8. Sampled children's enrollment status in pre-school or school was collected. Children did a variety of cognitive, early language, and early numeracy tasks; and activities to assess children's social and emotional development were also conducted. All tasks were done one-on-one with children in their homes.

Overview: Pre-school and school enrollment patterns among young children (age 4-8)

- Overall, more than 90% of young children in the age group 4-8 are enrolled in some type of educational institution.

  The proportion of young children who are enrolled in either pre-school (anganwadi, LKG or UKG class in private or government schools) or school (government, private, or other type of school) increases as children grow older, from 91.3% among 4-year-olds to 99.5% among 8-year-olds.

- Gender gaps are visible even among these young children, with more girls than boys enrolled in government institutions, and more boys than girls enrolled in private institutions.

  Among 4- and 5-year-old children, 56.8% girls and 50.4% boys are enrolled in government pre-schools or schools, while 43.2% girls and 49.6% boys are enrolled in private pre-schools or schools. The gap in enrollment between boys and girls is larger among 6- to 8-year-olds, with 61.1% of all girls versus 52.1% of all boys in this age group going to a government institution.

- Within each cohort of the same age, there is enormous variation in what children are doing.

  For example, at age 5, 70% children are in anganwadis or pre-primary classes, but 21.6% are already enrolled in Std I. At age 6, 32.8% children are in anganwadis or pre-primary classes, while 46.4% are in Std I and 18.7% are in Std II or higher. These enrollment patterns vary substantially across districts.

Children in the pre-school age group (age 4-5 years)

- From age 4 to age 5, children's ability to do all tasks improves substantially, in line with what child development experts expect and other studies have found.

  Regardless of whether or where they are enrolled, young children's ability to do cognitive, early language, early numeracy, and social and emotional learning tasks is higher among 5-year-olds than among 4-year-olds. For example, while 31% of 4-year-olds enrolled in anganwadis or government pre-primary classes were able to do a 4-piece puzzle, 45% of 5-year-olds attending these institutions could do so.

- However, although at age 5, all children should be able to perform most of these tasks with ease, a large proportion is unable to do so. Children from less advantaged homes are affected disproportionately.

  Although almost half of all 4-year-olds (44.2%) and more than a quarter of all 5-year-olds (26.3%) are enrolled in anganwadis, these children have far lower levels of cognitive skill and foundational ability than their counterparts in private LKG/UKG classes.

  Overall in this sample, about half the children have mothers who had completed eight or fewer years of schooling. Among the pre-primary age group, these children are more likely to be attending anganwadis (or, in a small proportion of children, government pre-primary classes); whereas their peers whose mothers studied beyond the elementary stage are more likely to be enrolled in private LKG/UKG classes.

- At both age 4 and age 5, there is a clear relationship between children's cognitive skills and their ability to do early language and early numeracy tasks.

ASER 'Early Years' data shows that children's performance on tasks requiring cognitive skills (such as sorting, seriation, and pattern recognition) is strongly related to their ability to do early language tasks (such as describing what they see in a picture) and early numeracy tasks (such as relative comparison of objects).

This suggests that focusing on play-based activities that build memory, reasoning, and problem-solving abilities is more productive than an early focus on content knowledge.

- At age 5, what we offer to and expect from children varies enormously across the country.

  Different states have different norms for entry to school. As a result, what a 5-year-old is doing depends largely on where she lives. For example, in Thrissur (Kerala), 89.9% of 5-year-olds are in a pre-primary grade and almost all the rest are in Std I. But in East Khasi Hills (Meghalaya), just 65.8% are in pre-school, 9.8% are in Std I, and 16% are in Std II. On the other hand, in Satna (Madhya Pradesh), 47.7% are in pre-school, 40.5% are in Std I, and 4.1% are in Std II.

  Anganwadis, LKG/UKG classes in private schools, the early primary grades in government schools and those in private schools each have different expectations for what children should do, and each offers a different type of structure, environment, and set of inputs to children. This means that we have a different set of expectations for children of the same age, depending on which institution they attend.

Children in Std I

- The Right to Education Act, 2009 (RTE) mandates that children should enter Std I at age 6. Many states allow entry to Std I at age 5+. However, 4 out of every 10 children in Std I are younger than 5 or older than 6.

  Overall, 41.7% of children in Std I are of the RTE-mandated age of 6 years, 36.4% are 7 or 8 years old, and 21.9% are 4 or 5 years old. Because the ASER sample was restricted to the age group of 4-8 years, the true proportion of overage children in Std I may be slightly higher (a small proportion may be 9 or older and were therefore excluded from the ASER 'Early Years' sample).

- Even within Std I, children's performance on cognitive, early language, early numeracy, and social and emotional learning tasks is strongly related to their age. Older children do better on all tasks.

  For example, within the Std I cohort, almost no children age 4 and 5 can read a Std I level text (5.7%). This proportion increases steadily with age, with 12.7% of 6-year-olds and 26% of 7- and 8-year-olds in Std I able to do so.

- Children in Std I in government schools are younger than those in the same grade in private schools.

  A clear difference in the age distribution in Std I is visible between children in government and private schools. More than a quarter of Std I students in government schools are either 4 or 5 years old (26.1%), while the corresponding proportion for private schools is ten percentage points lower at 15.7%. On the other hand, 30.4% students in Std I in government schools are 7-8 years old, while this proportion in private schools is far higher at 45.4%.

  Comparing learning levels in Std I between government and private schools is therefore problematic. Since there is a clear progression in learning with age, the higher learning levels observed in Std I in private schools may be partly due to the fact that Std I in those schools have a higher proportion of older children.

- As seen among the 4- and 5-year olds, a clear relationship is visible between children's cognitive skills and their ability to do early language and early numeracy tasks in Std I.

  For example, children in Std I who could do 3 cognitive tasks correctly (seriation, pattern recognition, and puzzle) had higher reading ability and were also more likely to solve oral word problems than their peers who could not.

- Irrespective of age, children in Std I do better in numeric arithmetic tasks (addition and subtraction problems presented in written numeric form) than oral word problems involving similar operations. For example, while 50.6% of Std I children could solve a 1-digit numeric addition sum correctly, 39.5% could do an oral word problem involving 1-digit addition.

Children in early primary grades (Std I-III)

- The variation in age distribution is widest in Std I and decreases in each subsequent grade. But older children continue to do better than younger ones on every task.

  By Std III, most children in both government and private schools are either 7 or 8 years old. But whereas 53.4% of 8-year-olds in Std III could read Std I level text, 46.1% of 7-year-olds could do so.

- Children's skills and abilities improve in each subsequent grade. But the huge jump between curriculum expectations at each grade means that by Std III, their early language and numeracy outcomes are already well behind curriculum expectations.

  For example, children's ability to read Std I level text improves from 16.2% of children in Std I to 50.8% children in Std III. This means that half of all children in Std III are already at least two years behind where the curriculum expects them to be.

  Similarly, 41.1% of students in Std I can recognize 2-digit numbers, while 72.2% of students in Std III can do so. But according to NCERT's specification of learning outcomes, children are expected to be able to recognize numbers up to 99 in Std I itself.

- As before, there is a strong relationship between children's cognitive skills and their performance on early language and early numeracy tasks.

  For example, in Std III, 63.2% of children who did all 3 cognitive tasks correctly were able to read at Std I level, as compared to 19.9% of children who were able to do one or none of the cognitive tasks correctly.

Implications for policy

Three key implications emerge from ASER 2019 'Early Years':

- *Expand and strengthen the existing network of anganwadi centres.* These institutions cater to large proportions of children well before they can enter pre-primary grades. The already significant scale of this network can be leveraged to reach those children who remain unreached. At the same time, the ability of these centres to implement appropriate school readiness activities for 3- and 4-year-olds needs to be strengthened.

- *Revisit state and national norms for age of entry to school.* Data from ASER 2019 'Early Years' shows clearly that performance on cognitive, early language, early numeracy, and social and emotional learning tasks is closely related to children's age, with older children doing better than younger ones. Permitting underage children into primary grades puts them at a learning disadvantage which is difficult to overcome.

- *Breadth of skills is important, and focusing too early on formal subject learning is counter-productive.* ASER 2019 data shows a clear relationship between children's performance on cognitive tasks and measures of early language and early numeracy, suggesting that a focus on activities that strengthen cognitive skills rather than subject learning in the early years may generate substantial benefits in terms of children's future learning. The entire age band from 4 to 8 needs to be seen as a continuum and curriculum progression across grades and schooling stages should be designed accordingly. For an effective and implementable curriculum, the process of designing, planning, piloting, and finalizing needs to keep ground realities in mind.