ASER 2019 'Early Years' – Coverage

- 24 States
- 26 Districts
- 32 Partner organizations
- 36,930 Children
- 30,425 Households
- 1,514 Villages
- 1,778 Volunteers
A team of two volunteers goes to the village assigned to them by their ASER state team. They carry the material required to conduct the survey.

Once in the village, the volunteers meet the Sarpanch/Village representative. They explain what ASER is and ask for support to conduct the survey in the village.

The volunteers then walk around the entire village. They make a map showing the important landmarks in the village and fill the Village Information Sheet based on the facilities they observe. Next, the volunteers select the households. To do this, the volunteers:

- Divide the map into 4 sections or select 4 hamlets.
- Randomly select 5 households with children in the age group 4 to 8 from each hamlet/section using the 'every 5th household rule'.
- Follow this process in every hamlet/section in order to survey a total of 20 households in the village.

Volunteers record some basic information about all the households they visit during the sampling process. This includes: hamlet/section number, locked or no response household, name of head of the household, number of children in the age group 4 to 8 who regularly live in the household, and mobile number of the household.

In each sampled household the volunteers do the following tasks:

- Record information about children in the age group 4 to 8.
- Use the Testing Tool to assess children in the age group 4 to 8 on cognitive development, early language, early numeracy, and social and emotional development.
- Record children's response for each test item administered.
- Record information about parents' education and household assets.

After all 20 households are surveyed, the volunteers check and then submit the completed Survey Booklet to their ASER state team.
ASER 2019 'Early Years' – Early learning tasks

Young children’s development can be assessed along many dimensions. While all of these are important, the guiding principles while creating an assessment for the ASER survey require it to be rapid, easy to administer consistently to children in the target age group in the household, and easy to understand by all stakeholders: children, volunteers doing the administration, and parents or community observing the assessment as well as researchers, educationists, and policy makers. The tasks for the ASER 2019 assessment were created keeping these principles in mind.

At the outset, a mapping of children’s learning trajectories, policy guidelines, curricular frameworks, and learning outcomes defined for pre-school and early primary school (Std I and II) was conducted. Based on this exercise, an initial set of domains and tasks was developed, piloted extensively, and refined over several months. For the final assessment, four key domains were selected: cognitive development, early language, early numeracy, and social and emotional development. These broadly seek to address four key questions: Can children do simple problem-solving tasks? Do children have early language skills? Do children have a sense of numbers and quantity? Are children able to identify emotions? On average, four competencies within a domain were retained to provide an overview of what young children in India can and cannot do. The complexity of tasks within each domain is varied to accommodate expectations from the youngest child (age 4) to the oldest (age 8) in the survey age group.

Like every ASER, the assessment was conducted at home rather than in school, so as to include children not enrolled anywhere as well as children attending different types of pre-schools and schools. All children in the 4 to 8 age group in a sampled household were assessed using the same tool, irrespective of grade or schooling status. The ASER assessment process incorporated various elements aimed at ensuring that it captured the best that each child can do. Volunteers were trained to build rapport with children to create a relaxed and encouraging environment. The test was adapted in 14 Indian languages. The volunteers were trained to speak slowly and clearly to ensure that all children are able to fully understand the expectation from the task. Children were given the time they needed to do each task. The assessment process was adaptive to the child’s ability, so that she did not have to attempt all levels. Thus, the child’s comfort and the commitment to accurately record her best possible response was at the core of the test design. The following pages describe the testing process for tasks in each domain in ASER 2019.

I. Cognitive development

Cognitive ability helps build problem-solving, memory, logical reasoning, and creative thinking skills in young children. These skills help children think, explore, and make meaning of the world around them. They are fundamental to any kind of learning in school or in life. ASER 2019 tasks for this domain comprised sorting by color, spatial awareness, seriation, pattern recognition, and puzzle.

1. Sorting by color

Children are given four shapes of different sizes and colors. As an example for the child, the volunteer separates the blue shapes from the rest. Then the child is asked to sort the remaining shapes into separate groups by color. This question is administered to children in the age group 4 to 5 only.
2. Spatial awareness
The volunteer shows the picture to the child and asks two questions:
i. Which boy is on top of the tree?
ii. Which boy is farthest from the tree?
This question is administered to children in the age group 4 to 5 only.

3. Seriation
The volunteer shows the child the four cards and asks her to arrange them in a line from the smallest to the biggest banana. Even if the child correctly arranges the cards from the biggest to the smallest banana, this is considered correct.

4. Pattern recognition
The volunteer describes a two-picture pattern to the child as an example: "Look, the star comes first, then the box comes next, then the star comes again, and then the box comes again". Then the child is shown the three-item pattern question and asked to point to the shape (from the options given) that should fill the blank space.

Example

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*  ■  *  ■  
  ■  *  ■  
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Question

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○  ■  △  ■  △  
  ■  △  ○  
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5. Puzzle
The volunteer solves the horse puzzle in front of the child, as an example of how to solve a puzzle. Then the child is given the elephant puzzle to solve. Children in the age group 4 to 5 are given a four-piece puzzle and children in the age group 6 to 8 are given a six-piece puzzle to solve. A separate picture of the elephant remains in front of the child while she is fitting the puzzle pieces together.

II. Early language
Language is an essential skill for communication, needed to express and communicate thoughts, feelings and needs, as well as to understand and have conversations with others. Language is also the foundation for literacy. The ability to read begins when children learn to connect shapes of written letters with their sounds. Comprehension is essential to make meaning of any communication. The following tasks were included in ASER 2019 to provide a snapshot of early language acquisition in young children: picture description, listening comprehension, reading (letters, words, a short paragraph equivalent to a Std I level text), and reading comprehension.

1. Picture description
The volunteer shows a picture to the child and asks her two questions based on it:
   i. What are people doing here?
   ii. What can you see outside the window?
A comprehensive repository of answer options collated from extensive piloting was available with the volunteer for grading. Correct answers in the local dialect and synonyms were marked as correct.
2. Listening comprehension

The volunteer reads out a four-sentence story. Each sentence is short, comprising about six simple words. The volunteer then asks two simple questions on the story to the child:

Geeta wanted to fly a kite. Geeta made a kite with paper. Then she tied a thread to the kite. Geeta was happy to fly the kite.

i. Who wanted to fly a kite?
ii. What did Geeta tie to the kite?

In view of the short attention span of young children, the story can be read up to three times to a child. The volunteer is trained to take cues from the child on her comprehension of the task and make decisions about repeating the story.

3. Reading

Three types of reading tasks are administered to children.

i. **Letters:** A set of commonly used letters is shown to the child. To be marked correct, she should read at least 5 out of 8 letters correctly.

ii. **Words:** If the child is able to read at least 5 letters correctly, she is asked to read words. Common, familiar words with two letters and one or two matras are shown to the child. To be marked correct, she should read at least 5 out of 8 words correctly.

iii. **Std I level text:** If the child is able to read at least 5 words correctly, she is asked to read a Std I level text. A set of four simple linked sentences, each having no more than six simple words is shown to the child. The words and sentence construction are compatible with the content of Std I textbooks. To be marked correct, she should read the Std I level text fluently and make three or less than three mistakes while reading it.

4. Reading comprehension

If the child reads the Std I level text, the volunteer asks two simple comprehension questions to the child. She is free to read the text a second time after listening to the questions.

बाहर कौन खेल रहा था?
रूपा ने खाना खाने के बाद क्या किया?
III. Early numeracy

Counting, measurement and sense of quantity are essential early numeracy skills. A strong foundation in early numeracy helps not only in school math but also in everyday life. The following tasks were included in ASER 2019 assessment to provide a snapshot of young children’s early numeracy skills: counting objects, relative comparison of objects, oral word problems, single- and double-digit number recognition, relative comparison, and numerical operations.

1a. Counting objects

This question is administered to children in the age group 4 to 5 only.

The volunteer shows the picture to the child and asks her to identify each object. The volunteer names any object that she is unable to name, and then asks four questions:

i. Count how many umbrellas are there?
ii. Count how many balls are there?
iii. Count how many fish are there?

1b. Relative comparison of objects

iv. Which of these objects is the most in number?

2. Oral word problems

One at a time, the volunteer reads out two word problems. These tasks involve simple single-digit addition and single-digit subtraction, so that child can solve them mentally or by using her fingers.

Seema has 3 toffees. Her sister gave her 5 more toffees. Tell me, how many toffees does Seema have in total?

Reena has 7 bananas. She gave 3 bananas to her friend. Tell me, how many bananas are left with Reena?

3. Single-digit arithmetic tasks

i. Number recognition: A set of 8 numbers from 1-9 is shown to the child. She is asked to read them aloud. If the child is able to recognize at least 5 numbers correctly, she is asked to do the next two tasks involving single-digit relative comparison and single-digit numerical operations.

ii. Relative comparison: The child is asked to look at all the numbers in the question. The volunteer points at the number in the circle on top. He then asks the child to look at the numbers in the box below and point to the number that is smaller than the one in the circle.

iii. Numerical operations: One at a time, the volunteer copies each numerical problem onto a sheet of paper and asks the child to add (or subtract) the numbers. Oral answers are also accepted.