ASER 2023: Assessment tasks

The ASER 2023 ‘Beyond Basics’ assessment tested the functional competencies of youth by assessing them on the following broad domains:
1. Digital tasks like setting an alarm, browsing for information, finding and sharing a YouTube video, using Google Maps
2. Everyday calculations like calculating time, adding weights, measuring length, applying unitary method
3. Basic ASER assessment of reading, arithmetic and English
4. Reading and understanding written instructions (administered only to youth who were able to read at least a Std I level text in the ASER reading test)
5. Financial calculations (administered only to youth who were able to do at least subtraction in the ASER arithmetic test)

Assessment tools were developed in 14 languages across the country.

1. Digital tasks

**Setting an alarm**
8:30 in the morning tomorrow

Question: Set an alarm for 8:30 in the morning tomorrow.
*Instruction: If the phone has an AM-PM setting, ensure that the youth has selected the correct option before recording the answer.*

**Browsing for information**
First woman President of India

Question: Search on the phone and tell me the name of the first woman President of India.
*Instruction: It does not matter which search engine the youth uses to find the answer; he/she could use Google, YouTube, or any other method. He/she should be able to point to/tell you the correct answer.*

**Using Google Maps**
Maps

Question: Open Maps and tell me how much time it would take you to travel from your current location to <district name> bus/taxi stand by bike/two-wheeler?
*Instruction: The youth should be able to do the task on an app (like Google Maps), and not on any search engine (like Google). Even if the youth simply points to the correct answer, it will be considered as correct. Ensure that the youth has chosen the correct option from two-wheeler/four-wheeler on Maps. Do not ask the youth to turn on the location.*

**Finding and sharing a YouTube video**
PMGDISHA Module 1

Question: Find the “PMGDISHA Module 1” video on YouTube.
Send/share it with a friend/family member using WhatsApp or Telegram.
*Instruction: The youth should be able to point at the correct video after searching on YouTube.*

For each task, the surveyor can read out the question twice and shows the keywords to the youth for the relevant question in the testing tool. The youth’s responses are coded as correct or incorrect. If the youth does not respond, or says that he/she does not know the answer, or if the phone stops working in the middle of the task, then that is also coded.
2. Everyday calculations

**Calculating time**

If this girl sleeps at this time at night and wakes up at this time in the morning then for how many hours does she sleep?

**Adding weights**

What is the total weight shown in this picture? Add and give the answer in kilogram.

**Measuring length (easy)**

Using the scale shown, measure the length of the key. Give the answer in centimetre.

**Measuring length (hard)**

Using the scale shown, measure the length of the pencil. Give the answer in centimetre.

**Applying unitary method**

If 3 chlorine tablets are needed to purify 15 litres of water, how many chlorine tablets are needed to purify 25 litres of water?

For each task, the surveyor shows the visual and can read out the question twice. The youth’s responses are coded as correct or incorrect. If the youth does not respond or says that he/she does not know the answer, then that is also coded.
3. Basic ASER assessment

**ASER reading tool**

**Std II level text**

अमन के पिताजी दुकान चलाते थे। दिन भर सब दीक रहता था।
रात को पूछे बहुत परेशान करते थे। अमन ने थूहों को मानाना का एक तरीका सोचा। वह एक बड़ी बिल्ली से आया। बिल्ली के बज़ा हरे थे पूछे अब दुकान में नहीं आते हैं। पिताजी अमन से बहुत खुश रहे। वह अब आराम से दुकान चलाते हैं।

---

**Std I level text**

राजू के पास एक गाय है।
वह हरी भास खाती है।
वह बहुत दुर्गे देती है।
दृष्ट से दरी बनता है।

---

**Letters**

म र भ क ह ट ड व न क ज

**Words**

एक घर खेत मोर पीठ चुप घेत अंक लोटा गिन

---

**ASER arithmetic tool**

**Subtraction**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>35</td>
</tr>
<tr>
<td>73</td>
<td>41</td>
</tr>
<tr>
<td>53</td>
<td>96</td>
</tr>
<tr>
<td>81</td>
<td>64</td>
</tr>
</tbody>
</table>

**Division**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>883</td>
<td>7</td>
</tr>
<tr>
<td>537</td>
<td>4</td>
</tr>
<tr>
<td>778</td>
<td>6</td>
</tr>
<tr>
<td>925</td>
<td>8</td>
</tr>
</tbody>
</table>

**Number recognition 11-99**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>65</td>
<td>43</td>
</tr>
<tr>
<td>55</td>
<td>18</td>
</tr>
<tr>
<td>72</td>
<td>37</td>
</tr>
</tbody>
</table>

**Number recognition 1-9**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

---

**ASER English tool**

**Capital letters**

R F J
T B
M K H

**Small letters**

q z o
w a
d s c

**Sentences**

fun hot jug
bat sun dog

Where is your cow?
This is a big shop.
I like to read.
She has a red kite.
# How to test reading?

**Start here**

If the youth is at ‘Letter Level’, then ask her to try to read the same words again and then follow the instructions for word level testing. If she can recognise at least 4 out of 5 letters but cannot read words, then mark her at ‘Letter Level’.

If the youth is not at ‘Letter Level’ (cannot recognise at least 4 out of 5 letters chosen), then show her the list of letters.

### Words

Ask the youth to read any 5 words from the word list.

Let the youth choose the words herself. If she does not choose, then point out any 5 words to her.

The youth is at ‘Word Level’ if she reads at least 4 out of the 5 words correctly.

If the youth is at ‘Word Level’, then ask her to try to read the same paragraph again and then follow the instructions for paragraph level testing.

If she can correctly and comfortably read at least 4 out of 5 words but is still struggling with the paragraph, then mark her at ‘Word Level’.

If the youth is not at ‘Word Level’ (cannot correctly read at least 4 out of the 5 words chosen), then show her the list of letters.

### Std I level text (Paragraph)

Ask the youth to read either of the 2 paragraphs.

Let the youth choose the paragraph herself. If she does not choose, give her any one paragraph to read. Ask her to read it. Listen carefully to how she reads.

The youth is not at ‘Paragraph Level’ if she:

- Reads the paragraph like a string of words, rather than sentences.
- Reads the paragraph haltingly and stops very often.
- Reads the paragraph fluently but with more than 3 mistakes.

If the youth can read a paragraph, then ask her to read the story.

The youth is at ‘Paragraph Level’ if she:

- Reads the full paragraph with 3 or less than 3 mistakes.

### Std II level text (Story)

Ask the youth to read the story.

The youth is at ‘Story Level’ if she:

- Reads the story like she is reading sentences, rather than a string of words.
- Reads the story fluently and with ease, even if she is reading slowly.
- Reads the full story with 3 or less than 3 mistakes.

If the youth can read the story then mark her at ‘Story Level’.

If the youth is not at ‘Story Level’, then mark her at ‘Paragraph Level’.

### Letters

Ask the youth to recognise any 5 letters from the letter list.

Let the youth choose the letters herself. If she does not choose, then point out any 5 letters to her.

The youth is at ‘Letter Level’ if she recognises at least 4 out of 5 letters correctly.

If the youth is at ‘Letter Level’, then ask her to try to read the same words again and then follow the instructions for word level testing. If she can recognise at least 4 out of 5 letters but cannot read words, then mark her at ‘Letter Level’. If the youth is not at ‘Letter Level’ (cannot recognise at least 4 out of 5 letters chosen), then mark her at ‘Beginner Level’.

**In the Youth Information Sheet, mark the youth at the highest level she can read.**
### Subtraction (2-digits with borrowing)

The youth is required to solve 2 subtraction problems. Show her the subtraction problems. First ask her to choose a problem. If she does not choose, then you pick one problem for her.

**Ask the youth what the numbers are, and then ask her to identify the subtraction sign.**

If the youth is able to identify the numbers and the sign, then ask her to write and solve the problem in the rough booklet. Observe if the answer is correct.

**Even if the first subtraction problem is answered incorrectly, ask the youth to solve the second question following the process explained above. If the second problem is correct, then ask her to try and solve the first problem again.**

If the she makes a careless mistake, then give her another chance with the same question.

| If the youth **cannot do both** the subtraction problems correctly, then ask her to recognise numbers from 11-99. Even if she solves just one subtraction problem incorrectly, give her the number recognition (11-99) task. |
| If the youth solves **both** the subtraction problems correctly, then ask her to do a division problem. |

### Number Recognition (11-99)

Ask the youth to identify any 5 numbers from the list. Let her choose the numbers herself. If she does not choose, then point out any 5 numbers to her. If she can correctly recognise at least 4 out of 5 numbers, then mark her at ‘**Number Recognition (11-99) Level**’.

| If the youth is not at ‘**Number Recognition (11-99) Level**’ (cannot correctly recognise at least 4 out of 5 numbers chosen), then ask her to recognise numbers from 1-9. |
| If the youth is unable to solve a division problem correctly, mark her at ‘**Subtraction Level**’. |

### Division (3-digits by 1-digit)

The youth is required to solve 1 division problem. Show her the division problems. She can choose any one problem. If she does not choose, then you pick one for her.

Ask her to write and solve the problem. Observe what she does. If she is able to correctly solve the problem, then mark her at ‘**Division Level**’. **Note:** The quotient and the remainder both have to be correct.

If she makes a careless mistake, then give her another chance with the same question.

| If the youth is not at ‘**Number Recognition (11-99) Level**’ (cannot correctly recognise at least 4 out of 5 numbers chosen), then mark her at ‘**Number Recognition (1-9) Level**’. |
| The youth must solve the numerical arithmetic problems in the rough booklet. |

In the Youth Information Sheet, mark the youth at the highest level she can reach.
How to test English?

There are 2 parts in the English testing: Reading and Meaning.
- First administer the reading section and mark the highest reading level of the youth.
- Then administer the meaning section. This is only for youth who are marked at word or sentence level in the English reading section.

### Part 1: Reading

#### Capital letters

Start here

Ask the youth to recognise any 5 capital letters from the capital letter list. Let her choose the letters herself. If she does not choose, then point out any 5 letters to her.

The youth is not at ‘Capital Letter Level’ if she cannot recognise at least 4 out of the 5 letters.

The youth is at ‘Capital Letter Level’ if she correctly recognises at least 4 out of the 5 letters.

If the youth is not at ‘Capital Letter Level’ (cannot recognise at least 4 out of the 5 letters chosen), then mark her at ‘Beginner Level’.

If the youth is at ‘Capital Letter Level’, then ask her to recognise small letters.

#### Small letters

Ask the youth to recognise any 5 small letters from the small letter list. Let her choose the letters herself. If she does not choose, then point out any 5 letters to her.

The youth is not at ‘Small Letter Level’ if she cannot recognise at least 4 out of the 5 letters.

The youth is at ‘Small Letter Level’ if she correctly recognises at least 4 out of the 5 letters.

If the youth is not at ‘Small Letter Level’ (cannot recognise at least 4 out of 5 letters chosen), then mark her at ‘Capital Letter Level’.

If the youth is at ‘Small Letter Level’, then ask her to read the words.

#### Simple words

Ask the youth to read any 5 words from the word list. Let her choose the words herself. If she does not choose, then point out any 5 words to her.

The youth is not at ‘Word Level’ if she cannot read at least 4 out of the 5 words.

The youth is at ‘Word Level’ if she correctly reads at least 4 out of the 5 words.

If the youth is not at ‘Word Level’ (cannot read at least 4 out of the 5 words chosen), then mark her at ‘Small Letter Level’.

If the youth is at ‘Word Level’, then ask her to read the sentences.

Continued on the next page...
Easy sentences

Ask the youth to read all four of the given sentences.

The youth is not at ‘Sentence Level’ if she:
■ Cannot read at least 2 out of the 4 sentences fluently.
■ Reads the sentences like a string of words, rather than a sentence.
■ Reads the sentences haltingly or stops very often.

The youth is at ‘Sentence Level’ if she:
■ Reads at least 2 out of the 4 sentences fluently.
■ Reads the sentence like a sentence and not a string of words.
■ Reads the sentence fluently and with ease, even if she is reading slowly.

If the youth is not at ‘Sentence Level’, then mark her at ‘Word Level’ AND Ask her to tell you the meaning of the words she has read correctly.

If the youth is at ‘Sentence Level’, then mark her at ‘Sentence Level’ AND Ask her to tell you the meaning of the sentences she has read correctly.

On the Youth Information Sheet, mark the youth at the highest level she can reach.

Part 2: Meaning

For ‘Word Level’ youth

Word Meanings

Ask the youth to tell the meaning of the words she has read correctly, in her local language.

The youth knows the meaning of the words, if she can correctly tell the meaning of at least 4 of the read words. She can tell the meaning of the words by:
■ Saying the correct meaning in her local language
OR
■ Pointing to an object, which explains the meaning of the word. For example, pointing to her father while explaining the meaning of ‘man’; pointing to something red to explain the meaning of ‘red’.

If the youth can correctly tell the meaning of at least 4 of the words, then mark her as ‘Can say’ in the meaning column.
If the youth cannot correctly tell the meaning of at least 4 of the words, then mark her as ‘Cannot say’ in the meaning column.

Note: If the youth is marked at ‘Word Level’, then ask only word meaning. If the youth is marked at ‘Sentence Level’, then ask only sentence meaning.

For ‘Sentence Level’ youth

Sentence Meanings

Ask the youth to tell you the meaning of the sentences she has read correctly, in her local language.

The youth knows the meaning of the sentences, if she can correctly tell the meaning of at least 2 of the read sentences. She can tell the meaning of the sentences by:
■ Saying the correct meaning in her local language
OR
■ Explaining the meaning of at least the main underlined words in the sentence. For example, for a sentence like ‘What is the time?’ the youth should at least be able to say ‘kyakitna’ and ‘samay/waqt’.

Note: Do not ask the meaning of the main underlined words by pointing at them one by one.

If the youth can correctly tell the meaning of at least 2 of the sentences, then mark her as ‘Can say’ under the meaning column.
If the youth cannot tell the meaning of at least 2 of the sentences, then mark her as ‘Cannot say’ under the meaning column.
4. Reading and understanding written instructions*

- How many packets of O.R.S. should be added to 4 litres of water?
- Within how many hours should the prepared solution of O.R.S. be consumed?
- How many litres of O.R.S. solution can be given to a 45 year old man within a span of 24 hours?
- Based on the information given, can this packet of O.R.S. be consumed in March 2024?

The surveyor shows the visual and can read out each question twice. The youth’s responses are coded as correct or incorrect. If the youth does not respond or says that he/she does not know the answer, then that is also coded.

5. Financial calculations**

For each task, the surveyor shows the visual and can read out the question twice. The youth’s responses are coded as correct or incorrect. If the youth does not respond or says that he/she does not know the answer, then that is also coded.

---

This task was administered only to youth who were able to read at least a Std I level text in the ASER reading test.

**These tasks were administered only to youth who were able to do at least subtraction in the ASER arithmetic test.
Alignment with learning outcomes

The National Council of Educational Research and Training’s (NCERT) learning outcome indicators for elementary education highlight concepts that students are expected to be familiar with at the end of each grade.1 The tasks in ASER 2023 ‘Beyond Basics’ assess some of these concepts in the context of everyday usage. The application-based tasks of the ASER 2023 tool are mapped to corresponding learning outcomes below:

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Task</th>
<th>Corresponding grade of learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday calculations</td>
<td>Calculating time</td>
<td>Std IV</td>
</tr>
<tr>
<td></td>
<td>Adding weights</td>
<td>Std IV</td>
</tr>
<tr>
<td></td>
<td>Measuring length (easy/hard)</td>
<td>Std III</td>
</tr>
<tr>
<td></td>
<td>Applying unitary method</td>
<td>Std VI</td>
</tr>
<tr>
<td>Reading comprehension</td>
<td>Reading and understanding written instructions on an ORS packet</td>
<td>Std V</td>
</tr>
<tr>
<td>Financial calculations</td>
<td>Managing a budget</td>
<td>Std III</td>
</tr>
<tr>
<td></td>
<td>Applying a discount</td>
<td>Std VII</td>
</tr>
<tr>
<td></td>
<td>Calculating repayment</td>
<td>Std VII</td>
</tr>
</tbody>
</table>

These application-based tasks were originally developed for the ASER 2017 ‘Beyond Basics’ survey which was also focused on the 14-18 age group. A detailed note on the development of the tool can be found on page 37-38 of the ASER 2017 report.2

---