How to Develop the Foundational Reading Assessment Tool

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Section 1: Introduction and Background

Why foundational reading?

The ability to read and understand a simple text is one of the most fundamental skills children can learn. Without basic literacy, there is little chance that a child can progress further in his or her academic journey or indeed even in life. Yet in many countries, despite students being enrolled in school for several years, they are unable to read and understand simple text. Recent evidence indicates that learning to read with understanding at the right time is essential for later success.

To help students become proficient readers, it is important to monitor their progress at the foundational stage. In this note, we will explore what is the foundational reading assessment, and what are the guidelines to develop and adapt such a tool for different contexts.

What is the foundational reading assessment?

‘Foundation’ means an underlying structure that supports further progress. In the context of ‘literacy’, building a ‘foundation’ involves building a skill set to meaningfully engage with written texts. While other knowledge bases and skills are also important, we define the ability to read as ‘foundational’ using which other skills can be built.

Most national and international assessments are paper-and-pencil tests based on the assumption that students can read and write. Results from these assessments show what test-takers cannot do or get wrong. However, this data does not help to figure out whether the child does not know what was being asked or if he or she simply cannot read the test. The foundational reading assessment described in this note is designed to orally assess the most basic skills for literacy acquisition: Reading.

The foundational reading assessment tool

The foundational reading assessment tool is designed to capture children’s early reading skills. It employs the framework used by the internationally renowned ASER tool, developed by ASER Centre and Pratham in India. Initially developed in 15 Indian languages and English in 2005, the ASER tool has since been adapted for use in more than 16 countries and in over 30 languages. All the tools and reports are available as open-source materials. ¹

This tool is administered on a one-on-one basis to each child orally. This was done as children who are not yet able to read, are just beginning to read, or are struggling readers, have difficulties with pen-and-paper assessments. To get a true sense of children’s reading ability, or where they are struggling, it is important to listen to and observe each child as they make their way through a set of simple reading tasks.

Can this assessment tool work in different languages?

This assessment tool can be used for assessing reading in languages with different writing systems. This is possible because research on reading acquisition indicates that all children move through the same stages when they are learning to read, although the rate at which they progress may differ by language. Developing a tool in any language would require a careful constitution of a core team of linguists, curriculum or textbook developers, and teachers for the language of concern. Writing systems represent language, and writing scripts vary in how speech is mapped to print. Therefore, it is imperative to adapt the foundational reading assessment framework to cater to the differences in writing systems for the respective languages.²

Case Study: Use of the tool in India

Reading is a process that is embedded in both the language system and the writing system. For the Indian languages, the smallest functional unit of the writing system is the ‘akshara’, which represents sounds at the syllable level with its constituent parts encoding phonemic information. The akshara can vary from simple to complex depending on the extent of the phonemic information encoded. The primary forms of vowels and consonants with an inherent vowel that is unmarked comprise the set of simple akshara and contrast with the complex akshara that comprise ligatures (consonants with vowel markers, or consonant clusters with a marked or unmarked vowel).

For other languages as well, learning to read requires learners to understand writing units that represent various sounds. For example, English is an alphabetic language, where each letter (grapheme)³ represents a phoneme or an individual sound. The consonants and vowels are presented by different graphemes and combining these letters (graphemes) form a word.

Given that the ASER reading assessment is designed to assess early and basic reading skills, its tasks assess children’s knowledge of the simple akshara; ability to accurately decode simple, everyday words; and ability to fluently read a Grade 1 and Grade 2 level passage. The selection of the tasks is based on the premise that the acquisition of symbol-sound mapping and the ability to decode symbol strings are among the early set of skills that contribute to reading in the Indian alphasyllabaries akin to the alphabetic orthographies (Nag 2007; Nag and Snowling 2011). Although the pace of acquisition of the akshara tends to be slow given the extensive set of orthographic units that children have to master, the acquisition of simple akshara is expected to be complete by Grades 1 and 2 (Nag 2007; Sircar and Nag 2013) and is therefore appropriate for use in a foundational reading assessment.

² The five types of writing systems are: logo syllabary (E.g., Chinese), in which each character stands for a morpheme, and the characters can be used for the sound of the morpheme as well as for its meaning; syllabary (E.g., Japanese), in which each character stands for a syllable; abjad (the Semitic-type script-Arabic), in which each character stands for a consonant; alphabet (i.e., the Greek-typescript. E.g., English), in which each character stands for a consonant or a vowel; abugida (the Sanskrit-typescript- Hindi), in which each character stands for a consonant accompanied by a particular vowel, usually /a/, and the other vowels (or no vowel) are indicated by consistent additions to the consonant symbols (Daniels and Bright 1996).
³ In linguistics, the grapheme is the smallest functional unit of a writing system.
The foundational reading assessment tool has the following types of tasks:

- Reading a “paragraph” (Grade 1 level text) and “story” (Grade 2 level text) fluently
- Reading basic commonly occurring words in print
- Recognizing letters/ syllables/ symbols

Note that this adaptive tool can be used as a common tool to assess foundational literacy skills across all primary grades. A common tool can help schools define foundational learning goals for themselves. This tool not only helps a teacher/ instructor track the learning levels of her own class but also enables school systems to use this common tool to compare and track children’s learning levels across grades. Moreover, experience suggests that training of teachers and discussion among the teachers in a school are easier and more effective when a common tool is used. Additional ‘bonus’ tasks for different grades can be added as is suitable for the context.

The framework of the foundational reading assessment tool can be adapted for many languages. However, a core team of assessment experts, language teachers have to be constituted. This core team needs to be careful when adapting reading tests from one language (source) to another (target) because it may alter the construct (knowledge, skills, abilities, and other characteristics that are the focus of the assessment) that is being tested (Tombokan-Runtukahu and Nitko 1991; Hambleton and Kanjee 1995).
The development of a tool in a new language can be approached through direct translation techniques (borrowing, loaning and literal translation). This is best suitable when the concepts and structure of the source language can be used in the target language and are only applicable when languages (and cultures) are very close. The other approach is through adaptation or indirect/oblique translation techniques. This is suitable when the target language is very different from the source language. E.g., Hindi to English. In this approach, the structural and conceptual elements are introduced to preserve the meaning and nuance of the source text.

Translation of tool-texts from source to target language usually involves the use of anyone or a combination of these techniques in a non-systematic way. However, it should be kept in mind that the target translation should be equivalent to the source text. This principle applies mostly to literacy skills, and to all other tests that use the medium of language to assess the target skills.

**Section 2: Process to develop/adapt foundational reading assessment tasks**

This section explains:

a) what each task in the reading tool is about  
b) why the task is important  
c) how the items in the task should be developed  
d) how the tasks and items can be adapted for your context.

<table>
<thead>
<tr>
<th>Task</th>
<th>Examples of items</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying primary symbols</td>
<td></td>
<td><strong>What is this task about?</strong></td>
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<tr>
<td></td>
<td></td>
<td>This task assesses a child’s ability to map symbols with sounds.</td>
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<td><strong>Why is this task important?</strong></td>
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<td></td>
<td>The primary focus in the early years of schooling is on the learning of the primary symbols – the smallest unit of a language. Children are expected to master the</td>
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Note that even for the same language, items should be adapted as per the context. The examples provided are from India (English and Hindi) and Kenya (Kiswahili).
primary symbols in Grade 1. Hence, items comprise a random selection of the primary symbols (i.e., syllables for Kiswahili and simple akshara for the Indian orthographies). In some languages the primary symbols are letters, and in other languages syllables - which can be only two letters (a vowel and a consonant), or a mix of vowels and consonants.

**Guidelines for item creation and adaptation**

- The 8-10 primary symbols selected for inclusion should be commonly used.
- Selection of letters should be based on their frequency of appearance in reading material commonly available for children (textbooks etc.)
- Phonetically similar letters such as ‘s’ and ‘sh’ should not be used in the same test sample. Similarly in Arabic, ت (t) and (th) are very close.

**Assessor’s instructions**

Point to any letter or syllable and read them aloud. Read any 5 letters or syllables. (If the child does not begin to choose, the assessor can choose the 5 letter/syllables for him or her)

**Guidelines for scoring the task**

The child gets full credit he or she recognizes at least 4 out of 5 letters or syllables correctly.
<table>
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<tr>
<th>Task</th>
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</thead>
<tbody>
<tr>
<td><strong>Reading common everyday words</strong></td>
<td><img src="image1" alt="English Example" /> <img src="image2" alt="Kiswahili Example" /> <img src="image3" alt="Hindi Example" /></td>
<td><strong>What is this task about?</strong>&lt;br&gt;This task assesses a child’s ability to decode symbol strings, i.e., to read words by mapping a combination of symbols to their sounds. <strong>Why is this task important?</strong>&lt;br&gt;Decoding symbol strings, i.e., reading words by mapping a combination of symbols to their sounds, is an important building block for children to acquire fluency. <strong>Guidelines for item creation and adaptation</strong>&lt;br&gt;● The selected words should be from the common print and language vocabulary of young children who may not even be at grade 1 level.&lt;br&gt;● Use 1-2 syllable words. The words should ideally have a CVC (consonant, vowel, consonant) or CVCV structure.&lt;br&gt;● Ensure that a variety of words are included – verbs, nouns, etc. – and are not from one single category (like all animal names). <strong>Assessor’s instructions</strong>&lt;br&gt;Point to any word and read it aloud. Read 5 words. <em>(If the child does not begin to choose, the assessor can choose the 5 words for her or him)</em> <strong>Guidelines for scoring the task</strong>&lt;br&gt;The child gets full credit if he/she reads at least 4 out of the 5 words correctly.</td>
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5 Note that even for the same language, items should be adapted as per the context. The examples provided are from India (English and Hindi) and Kenya (Kiswahili).

6 In the context of English, 2-3 syllable words will have 3 or more alphabets. CVC or CVCV word structure are high frequency words that are usually found in textbooks and, ‘beginning’ readers are expected to master these consistently spelled words before they move into decoding of words having conjoint sounds.
<table>
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<tr>
<th>Task</th>
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<tr>
<td>Reading a simple passage</td>
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<td><strong>What is this task about?</strong></td>
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<td></td>
<td>This task assesses a child’s ability to fluently read simple sentences, typically at Grade 1 level. Analysis of the early grade textbooks shows that children in most contexts are expected to read simple sentences by the end of Grade 1.</td>
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<tr>
<td></td>
<td></td>
<td><strong>Why is this task important?</strong></td>
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<tr>
<td></td>
<td></td>
<td>Proficiency in reading sentences is an important milestone in learning how to read. This task helps to infer if children are able to decode words. This task also helps to infer if children are able to understand meaningful phrases that would eventually build their ability to read and understand longer texts.</td>
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<tr>
<td></td>
<td></td>
<td><strong>Guidelines for item creation and adaptation</strong></td>
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<tr>
<td></td>
<td></td>
<td>● The passage should have 4 sentences.</td>
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<tr>
<td></td>
<td></td>
<td>● Each sentence should have 4 to 5 words. For languages that have long words, fewer words should be used. For example, many words shown in the Kiswahili paragraph are long and therefore only 3 words are used in most sentences.</td>
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<tr>
<td></td>
<td></td>
<td>● Words with conjoint sound (Example- st, sk) should not be used as far as possible. Exceptions can be made for languages that inherently have conjoint sounds in basic words.</td>
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<td>● Words should be commonly found in grade 1 textbooks and commonly used by a grade 1 child.</td>
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<td>● Each paragraph should have a maximum of 1 difficult word for grade 1 level.</td>
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<td>● The context of the paragraph should be familiar to the child in the country, especially in rural areas.</td>
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<td>● It should be ensured that there are no stereotyping sentences related to gender, race, or religion.</td>
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7 Academic research tells us that children find the words difficult to decode or read if they appear less frequently in the textbooks, if the words are far from their immediate contexts (unfamiliar in meaning), if the words are made up of many letters, or if there are conjoint sound units (combination of consonant sounds).
A mix of girls’ and boys’ names should be used across samples.

**Assessor’s instructions**

Ask the child to read the given paragraph. Listen carefully to how she reads. It is helpful to ask the child to point the finger at what she’s reading.

**Guidelines for scoring the task**

The child gets full credit if he/she does the following:

- Read like s/he is reading sentences, rather than a string of words.
- Reads the paragraph fluently and with ease, even if she is reading slowly.
- Pronounces words correctly and does not stop between words.
- As a rule, three mistakes are allowed.

**Note:** Refer to the resources on the foundational reading assessment tool to see some examples of common mistakes.

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Reading a short story</td>
<td><img src="image" alt="Image" /></td>
<td></td>
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</tbody>
</table>

**What is this task about?**

This task assesses a child’s ability to fluently read a simple text, typically of Grade 2 level. Analysis of the early grade textbooks shows that children in most contexts are expected to read texts that are 60 words and longer by the end of Grade 2.

**Why is this task important?**

Reading and understanding a simple text is the culmination of all literacy skills like print awareness, phonological skills, orthographic knowledge, and language acquisition. The structure of this task ascertain that a child is proficient in understanding written script, can decode successfully, understands the culture and the language, and can develop understanding by reading the text.
Guidelines for item creation and adaptation

- Each passage should contain 7-10 sentences.
- Each passage should contain approximately 60 words.
- Each story should have a proper narrative structure with a beginning, middle, and end.
- The priority should be to select stories with humans as characters. This is to ensure that the stories are relatable for children of all ages. Stories should be contextually relevant.
- Words used should be very commonly found in grade 2 textbooks and commonly used by a grade 2 child.
- It should be ensured that there are no stereotyping sentences related to gender, race, or religion.
- A mix of girls’ and boys’ names should be used across samples.

Assessor’s instructions
Ask the child to read the given story. Listen carefully to how she reads. It is helpful to ask the child to point the finger at what she is reading.

Guidelines for scoring the task
The child gets full credit if he/she does the following:

- Reads the story like she is reading sentences, rather than a string of words.
- Reads the story fluently and with ease.
- Pronounces words correctly and does not stop between words.
- As a rule, three mistakes are allowed.

Note: Refer to the resources on the foundational reading assessment tool to see some examples of common mistakes.
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| Answering Comprehension questions based on the story [Optional] | **Q1.** What stood in the garden?  
**Q2.** How did a plant grow?  
*English*  
**Maswali**  
**Q1.** Ngozi ya mbuzi inatumika kutengeneza ninii?  
**Q2.** Kwa nini Maria anampenda mbuzi?  
**Q3.** Kwa nini Maria aliwashi majirani wafuge mbuzi?  
*Kiswahili*  
**Q1.** गाँव में हर जगह गंदा पानी क्यों भर गया?  
**Q2.** बारिश रुकने पर क्या हुआ?  
*Hindi* | **What is this task about?**  
This task assesses a child’s ability to comprehend a simple text by answering a few questions based on the story.  
**Why is this task important?**  
It is important to assess whether children in early grades can understand written text and not simply decode it. This is a core skill that makes reading enjoyable and informative for children. Reading with meaning is the main goal of reading.  
**Guidelines for item creation and adaptation**  
Create 2-3 questions based on the story. The questions can be of the following types:  
1) Direct fact retrieval: To locate a single piece of information that is explicitly given in the reading passage. [Type-1]. For example, question 1 in the English tool on the left can be answered easily if the child has understood the first sentence, and it is a single word answer.  
2) Indirect fact retrieval: To locate, combine, and connect explicitly stated information from the reading passage. [Type-2]. For example, answering question 2 in the English tool requires the child to follow the story at least till the middle, combine and connect a couple of sentences.  
**Assessor’s instructions**  
If the child could read the story, then read aloud the questions to the child. Keep the tool in front of the child. Listen to the child’s answer carefully. |

**Note:** For more information on how to administer this tool, visit the [online resources](#) on the FLN resource hub.


