

## The languages of education in multilingual India: exploring effects on reading and mathematics

1<sup>st</sup> dissemination event: 12–13 July 2018, New Delhi, India

Session summary:

### How can we best assess our learners in reading and mathematics, considering their varied language background?

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This session on the assessment of reading and mathematics of learners with varied language backgrounds began with a discussion on the distinction between testing and assessment. One participant identified testing as ‘an instrument’ and to be product-oriented and it was contrasted with the term assessment, which they believe to be a broader mode of measurement, including feedback in its design and thereby providing a learning opportunity. In other words, they suggested that a test is a tool to gauge a participant’s ability in reading and/or mathematics in a fixed time period where teachers’ feedback is not necessarily provided. On the other hand, assessment is a kind of holistic documentation of a learner’s performance over a period of time, is longitudinal in nature, and is done via tests, classroom observation, diary writing, project, peer work, group work, etc., where learning gets in-built via these assessment tools and the feedback provided thereof.

Alongside this, the concept of bi/multilingual assessment of reading and mathematics was brought in, given the fact that all Indian classrooms have learners who have varied L1s and yet are required to make sense of academic discourse in a language of instruction that may or may not match with their home language. Attempts at multilingual assessment were discussed for classroom purposes and several ideas were introduced around systematic alternations of the language of input (test items, language of instruction) and language of output (oral and/or written).

In the second part of the session a quick round of comprehension check activities were conducted to find out:

1. The participants’ understanding of instances of tests and assessments of reading and mathematics based on mini descriptions of real life testing and assessing events (refer to worksheet 1)
2. The participants’ attitudes towards the use of bilingual assessments and feedback (refer to worksheet 2).

The discussion around these two worksheets helped the participants to understand the types and purposes of tests and assessments and the various ways in which bi/multilingual tests and assessments for classroom and achievement purposes could be designed and administered.

In the last part of the session the participants shared experiences of using multiple languages for purposes of instruction, explanation and eliciting responses from multilingual learners. In one instance, a teacher shared her experience of not knowing a particular L1 and drawing on another learner whose L1 matched with the learner who had difficulty in understanding concepts in mathematics to mediate between the teacher and the learner by translating from the regional language, the medium of instruction, into the specific L1. In another example a teacher explained how she introduced the maths symbols of addition and

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subtraction with Hindi numerals and then used English equivalents to slowly ease the learners into reading maths problems from L1 to L2 (English).

The session concluded on a positive note about best practices to assess learners with varied L1s. These include using multiple languages as ‘cognitive-linguistic resources’ to help such learners for concept understanding in mathematics and for development of ‘reading for meaning’, as distinct from ‘reading for decoding’ in Indian ESL classrooms.



### Worksheet 1: Test or assessment?

**Read** the following descriptions and **identify** if they are instances of assessment or of testing and what (math or reading) do they assess/test. Note that these are all done in the classroom and not for end of the year/semester examination.

- 1 Solving a few questions on percentage and fraction. \_\_\_\_\_
- 2 Reading a text and answering some multiple-choice questions. \_\_\_\_\_
- 3 Looking at a few examples of the number of tourists visiting four places in India and making a table of the percentage of people in each area. \_\_\_\_\_
- 4 Reading a paragraph and underline wrong uses of grammar (tense). \_\_\_\_\_
- 5 Looking at a few instances of errors in solving addition, subtraction and multiplication tasks. Discussing in pairs if there are errors and rectifying the errors. \_\_\_\_\_
- 6 Dividing three boxes of chocolates between 20 kids. \_\_\_\_\_
- 7 Writing a story based on an incident reported in the newspaper. \_\_\_\_\_
- 8 Reading a text and doing a fill in the blanks (supply type) task, then writing a summary of the text. \_\_\_\_\_
- 9 Solving a few exercises on division and algebra and correcting the answers of two or three classmates, before discussing with each other problems encountered. \_\_\_\_\_
- 10 Identifying an author and reading up on his/her biographical details, before making a presentation in class. \_\_\_\_\_

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## Worksheet 2: Teacher Questionnaire

Answer the following questionnaire. Rate each statement on a scale of 1 to 3, where 1 = least likely; 2 = sometimes; 3 = most likely. These statements are applicable for primary as well as secondary level students. At the end add up your score.



- 1 You would ask your students to use their mother tongue to clarify doubts or help in understanding instructions. \_\_\_\_\_
- 2 If a student cannot understand a task or an instruction in English, allow another student to explain it to the first student in his/her mother tongue. \_\_\_\_\_
- 3 While designing a test paper for math you write the instructions in L1. \_\_\_\_\_
- 4 While preparing a test of English, in the reading section you include the text both in L1 and L2. \_\_\_\_\_
- 5 To discuss the syllabus that is relevant for a test next week, you use L1 to ensure that every student has understood the information and can prepare well for the test. \_\_\_\_\_
- 6 You would encourage your students to speak in class using either L1 or L2 or mix both the languages and speak. \_\_\_\_\_
- 7 In explaining technical terms in math, you would use both L1 and L2 for better comprehension of your students. \_\_\_\_\_
- 8 Divide students into groups and make them solve math-based tasks with help of real life objects (e.g., prepare a shopping list with price and add up; divide a box of things between some kids in the neighborhood etc.). As they discuss you go around and find they are using L1. But you do not interfere and let them complete the task. \_\_\_\_\_
- 9 Do a mix of simple and complex reading tasks in class and make students solve questions in either L1 or L2. \_\_\_\_\_
- 10 Ask students to write diary entries. They can use any language or a mix of two languages. You look at the entries once a week. \_\_\_\_\_

What is your total score? \_\_\_\_\_