Special LaNA Administration: Establishing a link between LaNA and TIMSS/PIRLS

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The LaNA Assessment
What is LaNA?

• A new ready-to-use **Literacy and Numeracy Assessment** targeting low- and middle-income countries

• Developed by IEA and its partner the TIMSS & PIRLS ISC at Boston College to deliver high-quality standardized data as a basis for evidence-based education policies

• Rooted in the TIMSS and PIRLS frameworks -> same construct

• Administered at the end of primary school (4\textsuperscript{th} – 6\textsuperscript{th} grades) as a stand-alone paper-and-pencil assessment

• Student and school questionnaires allow for the association of achievement results with important factors that influence the learning environment
What is LaNA?

• Comprised of easier items from TIMSS Numeracy and simplified passages from PIRLS Literacy adapted to meet the needs of less advanced student populations

• LaNA can also be considered easier than TIMSS and PIRLS in terms of administration
  – Multiple-choice items only (no scoring)
  – No teacher questionnaire (i.e., no student-teacher linking)
  – More flexibility in terms of timelines and operation procedures

• Previously administered in Haiti, Nigeria, North Macedonia, Pakistan (Punjab), and Serbia
LaNA Design

- Rotated booklet design (4 rotated booklets) with two literacy and two numeracy blocks each
  - One common easy literacy block and four rotating literacy blocks: 2 literary (stories) and 2 informational passages
  - Four rotating numeracy blocks
- Multiple-choice format only
- 2*40-minute testing sessions followed by a context questionnaire session
- Additional administration of a school questionnaire
Next Step: Establishing a link between LaNA and TIMSS/PIRLS
Objective

• Collect sufficient data to establish a link between LaNA results and TIMSS/PIRLS achievement scales
  – To provide an indication of the percentage of students reaching minimum proficiency levels in reading and mathematics (via TIMSS/PIRLS benchmarks)
  – To monitor progress towards SDG 4.1.1b via LaNA

• In the future, only the LaNA booklets will need to be administered to measure progress toward SDG 4.1
LaNA Linking Study: Design

- About 4500 students per country for five+ countries needed -> country acquisition nearly finalized
- LaNA design will be complemented by four additional linking booklets (reading material from PIRLS Literacy and mathematics items from TIMSS Numeracy)
- Materials from PIRLS and TIMSS represent the lower end of the difficulty level in the two studies
- Half of the students will receive LaNA material, while the other half will receive linking booklets

→ Statistical linking* approach will benefit from experiences gained with the Rosetta concordance approach

*LaNA can be linked to TIMSS/PIRLS as both measure the same construct
## Tentative LaNA timeline

<table>
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<tr>
<th>Timeline</th>
<th>Activity</th>
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<tr>
<td>31 Dec 2022</td>
<td>Deadline to confirm participation</td>
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<tr>
<td>Mar – Apr 2023</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; NRC Meeting (training for Practice Administration)</td>
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<td>Apr – May 2023</td>
<td>Practice Administration (5-10 schools)</td>
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<td>June 2023</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; NRC Meeting (review of Practice Administration &amp; preparation for Main Data Collection)</td>
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<td>Sep 2023</td>
<td>Workshop on data entry and scoring (Main Data Collection)</td>
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<tr>
<td>Oct – Nov 2023</td>
<td>Main Data Collection (100 schools)</td>
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<td>May 2024</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; NRC Meeting (table review, preparation for analysis)</td>
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<tr>
<td>Aug 2024</td>
<td>Release of draft IDB and User Guide</td>
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<tr>
<td>Sep/Oct 2024</td>
<td>Release of LaNA reports (linking &amp; international results and methods)</td>
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• Objective: Establish a psychometrically sound link of LaNA to IEA‘s TIMSS and PIRLS (allowing eventual measurement of SDG 4.1.1b via TIMSS and PIRLS benchmarks) in 5 to 10 countries

• Link will provide participating (and future) LaNA countries a means to monitor progress towards SDG 4.1.1b

• Once link is established, no further administration of link material needed; measuring of progress toward SDG 4.1.1b (via PIRLS and TIMSS benchmarks) should be possible directly through administration of LaNA Assessment
Outlook

• LaNA is a ready-to-use monitoring tool for measuring numeracy and literacy achievement, and can be administered at any time on demand

• LaNA also indicates strength and weaknesses of education systems and can be used to monitor changes over time

• LaNA provides capacity building experience in the implementation of standardized international large-scale assessments

• Countries who want to join the linking study are still welcomed until the end of the year – no international study fees will be charged*

*Regular LaNA costs: 150,000 Euros for the first country and 100,000 Euros for each additional country administering LaNA on the same schedule
Thank you for your attention!

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More information on LANA: https://www.iea.nl/studies/iea/LaNA