Measuring and monitoring learning outcomes and skills: what are the challenges going forward?
# Learning outcomes and skills indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Domain</th>
<th>Required definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1.1</td>
<td>Reading and mathematics</td>
<td>Minimum proficiency level in (i) reading and (ii) mathematics, by sex</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Procedural quality minimum</td>
</tr>
<tr>
<td>4.6.1</td>
<td>Literacy and numeracy</td>
<td>Fixed level of functional numeracy and literacy</td>
</tr>
<tr>
<td>4.7.4</td>
<td>Global citizenship and sustainability</td>
<td>Adequate understanding of global citizenship and sustainability</td>
</tr>
<tr>
<td>4.7.5</td>
<td>Environmental science and geoscience</td>
<td>Proficiency in environmental science and geoscience knowledge</td>
</tr>
</tbody>
</table>
Coverage

Indicator 4.1.1
Number of countries covered

<table>
<thead>
<tr>
<th>Grade 2/3</th>
<th>End of primary</th>
<th>End of lower secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>85</td>
<td>78</td>
</tr>
<tr>
<td>34</td>
<td>98</td>
<td>85</td>
</tr>
</tbody>
</table>

Percentage of population covered

Indicators 4.6.1, 4.7.4 and 4.7.5
Coverage from 5% to 15% and almost exclusively from high-income countries
Data from cross-national assessment questionnaires

Equity

Availability of individual characteristics for disaggregation, among 20 assessments

- Sex: 20
- Age: 20
- Spoken language at home: 18
- Location: 16
- Wealth: 14
- Indigenous background: 10
- Disability: 8
- Immigrant status: 7

Other SDG indicators

Indicators sourced, by assessment

| Assessment | 4.1.1 | 4.2.1 | 4.2.2 | 4.a.1 | 4.c.1 | 4.1.3 | 4.1.6 | 4.1.7 | 4.2.3 | 4.2.4 | 4.5.2 | 4.a.2 | 4.c.2 | 4.c.3 | 4.c.4 | 4.c.7 |
|------------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|
| TIMSS      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |
| PASEC      | 4.1.1| 4.2.2| 4.a.1| 4.c.1 | 4.1.6| 4.1.7| 4.2.4| 4.5.2| 4.a.2| 4.c.2| 4.c.3| 4.c.4| 4.c.5| 4.c.7|      |
| PIRLS      | 4.1.1| 4.2.1| 4.2.2| 4.a.1| 4.c.1| 4.1.3| 4.1.7| 4.2.3| 4.2.4| 4.5.2| 4.a.2| 4.c.2| 4.c.3| 4.c.4| 4.c.7|      |
| SACMEQ     | 4.1.1| 4.2.2| 4.a.1| 4.c.1| 4.1.3| 4.1.6| 4.2.4| 4.5.2| 4.7.2| 4.a.2| 4.c.2| 4.c.3| 4.c.4| 4.c.6| 4.c.7|      |
| PISA       | 4.1.1| 4.2.2| 4.a.1| 4.c.1| 4.1.6| 4.1.7| 4.2.4| 4.5.4| 4.7.5| 4.a.2| 4.c.2| 4.c.3| 4.c.4| 4.c.7|      |
| TERCE      | 4.1.1| 4.2.2| 4.a.1| 4.c.1| 4.1.6| 4.2.4| 4.5.2| 4.a.2| 4.c.2| 4.c.3| 4.c.4| 4.c.7|      |      |      |
| ICCS       | 4.7.1| 4.a.1| 4.c.1| 4.1.3| 4.1.7| 4.2.5| 4.7.4| 4.a.2| 4.c.2| 4.c.3| 4.c.4|      |      |      |
| ICILS      | 4.a.1| 4.c.1| 4.1.3| 4.4.2| 4.c.2| 4.c.3| 4.c.4| 4.c.7|      |      |      |      |      |      |
| EDI        |      | 4.2.1| 4.2.2| 4.2.4|      |      |      |      |      |      |      |      |      |      |      |
Methodological challenges and solutions on 4.1.1

**Challenges**
- Comparability
  - of grades and education levels
  - between countries, over time
- Heterogenous procedural quality among assessment programs, especially national assessments
- Low coverage
- High financial costs

**Solutions developed**
- Global standards and harmonization tools
  - Minimum Proficiency Level (MPL)
  - Linking assessment programs to MPL:
    - Assessments for Minimum Proficiency Levels (AMPL)
    - Rosetta Stone: concordance between international (TIMS/PIRLS) and regional (PASEC and ERCE) assessments
- Capacity development tools
  - Menu of alternatives for reporting
  - Policy linking / Pairwise comparison of items
Agenda forward to work with Member States (1)

- **Assessment harmonization and reporting handbook**
  - Compile and regularly update a handbook with all information on eligibility criteria for reporting:
    - alignment to standards and frameworks; representativeness; administration comparability; process transparency; and participation feasibility (costs, schedules, capacity building, overall burden for a country)

- **Assessment accreditation system**
  - Introduce a process certifying compliance with a checklist of assessment eligibility criteria for reporting based on the handbook

- **Approach to increase investment to fund learning assessments**
  - Build infrastructure at national level
  - Transfer knowledge and skills
  - Transfer purchasing power and decision-making
Agenda forward to work with Member States (2)

- **Standardization of context questionnaires in learning assessments**
  - Agree on key definitions and on standard items and formats to capture individual student, teacher, and school characteristics to improve comparability in measuring equity and drivers of learning

- **Innovative methodologies on indicators with low coverage**
  - Scale up the mini-LAMP as a cost-effective approach to adult literacy measurement to increase coverage of SDG indicator 4.6.1
  - Explore approaches for measuring indicators 4.7.4 and 4.7.5 that mirror the AMPL approach for indicator 4.1.1 through a module that measures the minimum agreed standards taking advantage of existing assessments
Proposed decision (1)
Learning assessment data: challenges and solutions

- *Noting* the information presented in the report ‘Learning assessments and skills survey data: challenges and solutions forward’ (1 UIS/EDS/7);

- *Welcoming* the significant progress made in establishing conceptual, methodological, and reporting frameworks for SDG indicator 4.1.1;

- *Acknowledging* the remaining challenges in reporting SDG indicator 4.1.1;

- *Noting* the low coverage and remaining challenges for SDG indicators 4.6.1, 4.7.4 and 4.7.5;
Proposed decision (2)
Learning assessment data: challenges and solutions

The UNESCO Conference on Education Data and Statistics

- requests the TCG/EDS Commission to focus efforts on:
  - an assessment harmonization and reporting handbook
  - an assessment accreditation system
  - the standardization of context questionnaires in learning assessments
  - innovative methodologies on indicators with low coverage

- invites the international community to develop an approach to increase investment to fund learning assessments
THANK YOU

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