The SDG 4 Learning Agenda: The current state of affairs

Silvia Montoya, UIS Director
May 11th, 2016
...UIS will remain the official *source of cross-nationally comparable data on education*. It will continue to produce international monitoring indicators based on its annual education survey and on other data sources.

In addition to collecting data, the UIS will work with partners to develop new indicators, statistical approaches and monitoring tools to better assess progress across the targets related to UNESCO’s mandate, working in coordination with the Education 2030 SC.
SDG4: 11 indicators for a Life Cycle Approach to Education and Skills

1. Basic Education learning outcomes
2. ECD learning child dev
3. TVET and higher Education
4. Work and skills
5. GCE and ESD

Means of Implementation:
- Education finance
- School environment
- Scholarships
- Teachers

Transversal Dimensions:
- Equity
Mapping assessment efforts at the cross national levels…

Share of countries with a cross-national assessment administered in the last 5 years

<table>
<thead>
<tr>
<th>Target 4.1</th>
<th>Target 4.2</th>
<th>Target 4.4</th>
<th>Target 4.6</th>
<th>Target 4.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERCE, PASEC, PILNA, SACMEQ, PIRLS, TIMSS, PISA</td>
<td>EAP-ECDS, MELQO, PRIDE, IDELA, EDI, ECDI, UIS</td>
<td>ICILS, PIAAC</td>
<td>PIAAC, STEP</td>
<td>ICCS</td>
</tr>
</tbody>
</table>

- 4.1.1.a: 20%
- 4.1.1.b: 29%
- 4.1.1.c: 33%
- 4.2.1: 34%
- 4.2.2: 65%
- 4.4.1: 19%
- 4.6.1: 21%
- 4.7.1: 18%
Mapping assessment efforts…
Monitoring: “the” options

- Define benchmarks and indicators based on nationally defined standards (from national assessments)

- Develop a “global” mechanism on measuring and framing indicators at one point in time i.e. snapshots at different grades / different ages? Based on current instruments

- Indicators derived from an empirically developed scale
However we do not know the characteristics

- Detailed information about assessment:
  - Purpose
  - Scope
  - Funders and other stakeholders
  - Test design
  - Coverage
  - Data reporting and use

- Except for some sources with
  - Detailed information about the culture of assessment in countries
  - Some reporting UIS catalogue of LO, Saber, OECD and some other efforts
Why assessments are not comparable?

- In many cases we do just do not know anything.
- Quality and scope of vary.
- Different conceptual and methodological framework that may not yield comparable results.
- No single measure at any education level:
  - National assessment, if exist, happen in different grade/s;
  - Not Cross National Assessment with global representation;
  - Not all regions conduct assessments.
## Cycles ends in different grade

| Region                   | Last grade of primary education |          | Last grade of lower secondary education |          |          |          |          |          |          |          |          |          |          | Total  |
|--------------------------|---------------------------------|----------|----------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                          | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 | Grade 7 | Grade 8 | Grade 9 | Grade 10 | Grade 11 |          |          |          |          |        |
| East Asia & Pacific      | 1       | 5       | 27     | 2       | -       | 1       | 7       | 18      | 8        | 1        |          |          |          | 35      |
| Europe & Central Asia    | 20      | 11      | 18     | 3       | 1       | -       | 11      | 34      | 7        | 1        |          |          |          | 53      |
| Latin America & Caribbean| -       | 2       | 30     | 9       | -       | -       | 6       | 24      | 11       | -        |          |          |          | 41      |
| Middle East & North Africa| 2      | 4       | 15     | -       | -       | -       | 1       | 18      | 2        | -        |          |          |          | 21      |
| North America            | -       | -       | 3      | 1       | -       | -       | 1       | 2       | 1        | -        |          |          |          | 4       |
| South Asia               | -       | 5       | 1      | 2       | -       | -       | 4       | 2       | 1        | 1        |          |          |          | 8       |
| Sub-Saharan Africa       | -       | 3       | 35     | 10      | -       | -       | 6       | 18      | 22       | 2        |          |          |          | 48      |
| **Total**                | **23**  | **30**  | **129**| **27**  | **1**   | **1**   | **36**  | **116** | **52**    | **5**    |          |          |          | **210**  |
Literacy is defined differently depending on the Assessment

<table>
<thead>
<tr>
<th>PISA 2000</th>
<th>PISA 2009/2015</th>
<th>PIRLS</th>
<th>SACMEQ</th>
<th>STEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading literacy is understanding, using and reflecting on written texts, in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society</td>
<td>Reading literacy is understanding, using, reflecting on and <strong>engaging with written texts</strong>, in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society</td>
<td>&quot;the ability to understand and use those written language forms required by society and/or valued by the individual&quot;.</td>
<td>the ability to understand and use those written language forms required by society and/or valued by the individual</td>
<td>“Understanding, evaluating, using and engaging with written texts to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential”</td>
</tr>
</tbody>
</table>
Item development follows different processes

<table>
<thead>
<tr>
<th>PISA 2015</th>
<th>LLECE</th>
<th>SACMEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item generation</td>
<td>Uses the expert group approach in which a group of experts calls for submission of items.</td>
<td>Items are developed by a panel of subject specialists drawn from all 15 participating school systems</td>
</tr>
<tr>
<td>Panelling items</td>
<td>TERCE is based on a curriculum analysis, specification tables.</td>
<td></td>
</tr>
<tr>
<td>Cognitive trial</td>
<td>Item development involves specialists from almost all countries</td>
<td></td>
</tr>
<tr>
<td>Field trial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main study selection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
And there are many reporting scale score and reporting levels

<table>
<thead>
<tr>
<th></th>
<th>PISA</th>
<th>PIRLS/TIMSS</th>
<th>ICILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale centre-point</td>
<td>Reading/Math/Science</td>
<td>Reading/Math/Science</td>
<td></td>
</tr>
<tr>
<td>(standard deviation of score)</td>
<td>500 (100)</td>
<td>500 (100)</td>
<td>500 (100)</td>
</tr>
<tr>
<td>Performance/proficiency level</td>
<td>7 levels of proficiency with level 6 representing the most advanced level and level 1 representing the basic level.</td>
<td>4 levels of proficiency with level 4 representing the most advanced level and level 1 representing the basic level.</td>
<td>4 levels of proficiency with level 4 representing the most advanced level and level 1 representing the basic level.</td>
</tr>
</tbody>
</table>
And there are coverage issues
HHS based or School based?

- Population Coverage: In or Out of School Children? All?
- Clarity on challenges
  - Problems (ISCED levels And other standards not included), periodicity,
  - Cost of collecting, errors and biases?
- What type of information do we get in each case?
  - Household based: Individual and his/her enabling context
  - School based: Individual in educational unit in an educational system
Key measurement challenges

Two key sets of challenges:

- reconciling the multiplicity of learning assessments within a common framework that integrates activities
- reducing the high transaction costs currently associated with the lack of coordination and duplication of efforts.
Towards building a universal LO Strategy

- Have a response to emerging priorities for measurement of learning
- Three main pillars:
  - conceptualizing and building a universal learning scale
  - establishing a data quality framework
  - creating a platform for convening key stakeholders and thought leaders to provide input and guidance
Advantages and steps towards a universal learning scale

- Value Added
  - All exams report on the same scale
  - Making it easy to understand how performance on one exam relates to performance on another

- Empirically find a global learning scale
  - Take per grade the frameworks and map the contents and abilities evaluated
  - Build a continuum with the abilities/skills/contents evaluated at each
Reconciling the multiplicity of learning assessments

- A scale that links the various assessments together based on an agreed-upon set of shared quality criteria
- For global usage, the framework must be
  - Comprehensive
  - Transparent
  - Coherent
How would a Global Learning Scale look like?

Skills

Contents

SDG reporting scale

Age/grade
And SDG reporting scale that allows coexistence with other scales
That would allow current assessment to be mapped

<table>
<thead>
<tr>
<th>Common Framework for Reference</th>
<th>Advanced</th>
<th>Proficiency</th>
<th>Basic</th>
<th>Below Minimum</th>
<th>Digital literacy</th>
<th>GCED and so on</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>PISA/TIMSS</td>
<td>Country A</td>
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<td>ICILS</td>
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<td>PASEC/PILNA</td>
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<td>Advanced</td>
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<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>SACMEQ/PASEC/PILNA/LLEC</td>
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<td>Basic</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>SACMEQ/PASEC/PILNA/LLEC</td>
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<td></td>
<td>Below Minimum</td>
<td>EGRA</td>
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<td></td>
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<td></td>
<td>EGRA</td>
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</tbody>
</table>

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Define a SDG reporting scale and find the conversion function
The Global Framework for Reference
Accompanied by an assessment of quality of process (DQAF)

- Set to address:
  - Uneven technical standards.
  - Need to increase coherence of data.

- Aimed to cover:
  - Institutional environments,
  - Content alignment
  - Statistical processes
  - Data characteristics.
Value added to collaborative action

- Increase Cost-effectiveness
- Participatory approach
- Favors Multilateralism (not tied to one donor)
- Favors Neutrality
- Sustainability
UIS Framework for data collection and Indicators implementation

- How to make data comparable for all areas from the many existing initiatives
- Expectation Management: what could be achieved and when
- Stepping stones approach
  - Define when the use of placeholders/proxy indicators is needed
What does it take?

- Measurement tools that
  - Yield data on outcomes
  - Definition on benchmarks
  - Repeated measurement for monitoring

- Capacity for action (human, financial and technology)
Roadmap to implementing Indicators 
Stepping Stones Framework

- **Step 1:** List metadata
- **Step 2:** Availability of data
- **Step 3:** Define better possible placeholder
- **Step 4:** Define process and timeline to make it happen
Roadmap to implementing thematic indicators framework

- Is the indicator currently available?
  - Yes
    - Is the UIS responsible for? Disaggregation
      - Yes
        - Targets 2016-2018
        - Activities to disaggregate data
        - Estimated cost
      - No
    - Is the UIS responsible for? Source
      - Yes
        - Targets 2016-2018
        - Activities to change Questionnaire
        - Estimated cost
      - No
    - Is the UIS responsible for? Coverage
      - Yes
        - Targets 2016-2018
        - Activities to increase coverage
        - Estimated cost
      - No

- Defining the placeholder
  - No

- Is there an agreed definition and methodology?
  - No

- Is the UIS responsible to collect/process the data?
  - Yes
    - Activities to implement data collection or data processing
    - Outputs 2016-2018
    - Estimated cost
  - No
    - Activities to coordinate: definition of the indicator, methodology and data collection
    - Outputs 2016-2018
    - Estimated cost

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Reconciling the multiplicity of learning assessments

- A scale that links the various assessments together based on an agreed-upon set of shared quality criteria (the scale and its reporting metrics)

- What are the alternatives for the assessment?
  - One measure used everywhere: Same items, same administration everywhere?
  - Common core of items?
  - Common constructs (items that vary)

- How to ensure Quality?

- How to ensure countries’ support?

- How to better link to new methodological developments?

- What is the best institutional setting?
Thank You

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We still have some information ...

**Percentage of students on level of assessment reflecting the minimum achievement or more in language (Grade 2 or 3). National Assessment (Between 2010 and 2015)**

**TARGET 4.1.** By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.

4.1. **Global indicator:** Proportion of children and young people: (a) in grades 2/3, (b) at the end of primary, and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex.

4.1.1. **Thematic indicator:** Percentage of children/young people (i) in Grade 2/3, (ii) at the end of primary and (iii) at the end of lower secondary who achieve minimum proficiency standards in (a) reading and (b) mathematics.
Percentage of students in proficiency level 2 or more of Language (End of lower secondary education), Cross-National Assessments (Between 2010 and 2015)

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