PISA for Development: Out-of-school initiative (OOSi)

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Key documents: Google PISA-D

PISA for Development
Project Completion Report
PISA, PISA-D and SDG 4 monitoring

- PISA is a source of data for global monitoring of SDG 4.

**Global Indicator 4.1.1.c**

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

- Equates to: Level 2 in PISA (at least 407 points for reading; 420 points for mathematics)
What was the problem we set out to address in OOSi? Percentage of 15-year-olds covered by PISA

On OECD average, PISA 2018 represents 88.2% of the entire 15-year-old population across OECD countries.
What we wanted to achieve

Because out-of-school rates are high in many countries, indices of coverage in low-and-middle income countries especially can be as low as 30%, we wanted to achieve:

- An approach and methodology for incorporating out-of-school youth in PISA assessments
• 14-16 year-old youth who are either enrolled in school at grade 6 or below or who are outside of the school system (PISA-D country averages)
Went *much lower* on the reading scale

<table>
<thead>
<tr>
<th>Illustrative examples</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1c</strong></td>
<td>- Decodes and understands short sentences (&quot;The red car has a flat tyre&quot;, &quot;airplanes are made of dogs&quot;)</td>
</tr>
<tr>
<td><strong>Level 1b</strong></td>
<td>- Understands short text, finds a single piece of explicitly stated information (e.g. &quot;what colour is the car?&quot;)</td>
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<tr>
<td><strong>Level 1a</strong></td>
<td>- Level 1b + Identifies the main theme or the author’s intent in a text about a familiar topic</td>
</tr>
<tr>
<td><strong>Level 2 (baseline)</strong></td>
<td>- Reads and understands simple texts; - connects pieces of information, draws inferences beyond the explicitly stated</td>
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</table>
Went *much lower* on the mathematics scale

<table>
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<tr>
<th>Illustrative examples</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1c</td>
<td>• What is the price of orange juice at this restaurant?</td>
</tr>
<tr>
<td>Level 1b</td>
<td>• Which drink is most expensive?</td>
</tr>
<tr>
<td>Level 1a</td>
<td>• How much do you pay if you order 2 orange juices and a snack?</td>
</tr>
<tr>
<td>Level 2 (baseline)</td>
<td>• How much cheaper is the « breakfast deal » compared to ordering each item separately from the menu?</td>
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</table>
Enhanced the background questionnaires

• In addition to the PISA-D student questionnaire elements, obtained information about why the youth is not in school, barriers preventing the youth from returning to school, and about employment.

• Through the Parent (or the most knowledgeable person) questionnaire, obtained more information about the youth’s background and childhood experiences.

• Expanded measure of economic, social and cultural status (ESCS) to adequately capture lower levels of parental education, income and risk factors of poverty.
The assessment structure (1)

Results from out-of-school linked to the scales used in in-school, thus requiring a large proportion of overlapping items between the two surveys.
The assessment structure (2)

• Administration of out-of-school assessment via tablets
• Maximized the use of automatically scored items to capitalize on the use of tablets
• Focused on reading and mathematics only
• A routed design with two paths: a cognitive path more similar to PISA assessments of in-school populations, or to path with a set of tasks resembling components
• Youth interviewed first for completion of background questionnaire and then takes the test
Data Collection Design

Respondent
In-person interview

Youth Interview
(30-35 Min)

Core Module
(5 Reading and 5 Mathematics Items)
(10 Min)

Fail
(Fewer than 2 core items correct)

Reading Components
(Sentence Processing and Passage Comprehension)
(15 Min)

Pass
(At least 2 core items correct)

Forms 1-12
(Combination of Reading Components, Reading, and Mathematical Literacy Items)
(35 Min)

Person(s) most knowledgeable about the respondent questionnaire
(i.e., parents, caregivers, Guardians)

Household Observation Schedule
(Interviewer)

Others

Respondent
In-person interview

Youth Interview
(30-35 Min)

Core Module
(5 Reading and 5 Mathematics Items)
(10 Min)

Fail
(Fewer than 2 core items correct)

Reading Components
(Sentence Processing and Passage Comprehension)
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Household Observation Schedule
(Interviewer)
PISA-D out-of-school assessment pilot achievements

- **Counted** and located the target population (sampling frame)
- **Found** and identified the target population (sampling strategy)
- **Developed and implemented** an assessment of **reading and mathematics** delivered in the household on a tablet computer
- **Developed and implemented contextual questionnaires** delivered in the household
- **Administered** a survey in the most cost-effective way, **given the strategy**
- **Linked the results to the PISA scale**
- **Achieved** enough completed cases (7,500) to test the validity of the items and allow analyses that are useful to the pilot and relevant for the countries – **Guatemala, Honduras, Panama, Paraguay and Senegal**
- Will **report** on results, achievements and lessons learned on **1st and 3rd December 2020**
Key lesson learned

• The approach and methodology works, but ...

• out-of-school assessment in households is expensive and main in-country costs are those related to identifying and locating respondents...

• ...a large amount of screening required to locate eligible youth and good local area data is essential...

• ...these costs of screening are prohibitive and will constrain scaling-up of the initiative unless solutions are found to screening challenge...
What about countries and economies not in PISA?

All 37 OECD member states and 42 partner countries/economies

Over half a million 15-year-olds from 79 countries and economies
PISA-D assessment *linked to or integrated with* household surveys solves the problems of cost and accessibility

- An international option as part of a future PISA cycle *linked to a household survey* (10 minutes core module and 35 minutes test with results linked to the PISA scale); and

- A shortened *PISA-D test* (15-20 minutes) *integrated with a multi-topic household survey* designed solely to discriminate whether respondent is above or below 406 points on reading and 419 points on mathematics – the SDG 4 benchmarks for minimum levels of proficiency - may be part of a future PISA cycle or a completely separate study.