Children left behind in learning – measuring foundational learning skills in Multiple Indicator Cluster Surveys (MICS)

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Questions

1. Why a Foundational Learning Skills (FLS) module for household surveys?
2. What does it assess? How? What indicators does it yield?
3. How can its data reveal equity and education policy issues?
4. How UNICEF support National Statistics Offices to collect learning data in MICS and non-MICS surveys?
Do we know how *all* children are learning?

Learning Assessment Capacity Index (LACI): diversification of large-scale assessments 2010-2015

Source: UNESCO Institute for Statistics.  
http://uis.unesco.org/apps/visualisations/laci/
So far, **16 countries** have joined the MICS program since the 6th round was launched in 2017.

Yet to decide to include FLS module

[https://mics.unicef.org/](https://mics.unicef.org/)
1) Parental Participation (in child’s learning) – Mothers or caregivers
2) Foundational Learning skills – **Children aged 7-14** (one per household)
   - Unscripted rapport-building exercise
   - Learning environment – reading habits, languages at home and in school
   - **Foundational reading skills** (3 indicators + 1 overall indicator)
     1. % who read 90%+ of words in **story** (70 words, 2nd grade vocabulary)
     2. % who answer 3 out of 3 literal comprehension **questions**
     3. % who answer 2 out of 2 inferential comprehension **questions**
   - Foundational number skills (4 indicators + 1 overall indicator)

Total interviewer-child interaction: 15 minutes (on average)
Foundational Reading Skills, Kyrgyzstan

Foundational Reading Skills: SDG 4.1.1.(a) (i: reading)

- Reads 90% of words correctly in story: 80%
- Answers literal comprehension questions correctly: 76%
- Answers inferential comprehension questions correctly: 67%
- Has foundational reading skills*: 58%

*Percentage of children age 7-14 who can 1) read 90% of words in a story correctly, 2) Answer three literal comprehension questions, 3) Answer two inferential comprehension questions
## Numeracy Tasks, Foundational Learning Skills module

<table>
<thead>
<tr>
<th>Task</th>
<th>Number of items</th>
<th>Last item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number reading</td>
<td>6</td>
<td>731</td>
</tr>
<tr>
<td>Number discrimination</td>
<td>5</td>
<td>146 - 154</td>
</tr>
<tr>
<td>Addition</td>
<td>5</td>
<td>12 + 24 =</td>
</tr>
<tr>
<td>Pattern recognition and completion (missing number)</td>
<td>5</td>
<td>5 8 11 __</td>
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Out of the five classical domains in mathematics, the module currently focuses on one, namely Numbers. The domains of Measurement, Statistics and Algebra may be too advanced for the early grades. The possibility of adding Geometry items should be explored.
Foundational Numeracy Skills: SDG 4.1.1(a) (ii: numeracy)

- Number reading: 97%
- Number discrimination: 94%
- Addition: 93%
- Pattern recognition and completion: 88%
- Has foundational numeracy skills*: 82%

*Percentage of children age 7-14 who can successfully perform 1) a number reading task, 2) a number discrimination task, 3) an addition task and 4) a pattern recognition and completion task.
Wealth and learning poverty

Percentage of children ages 7-14 who could read a short, simple story (grade 2/3 level) and answer 5 questions about it, by wealth quintile (MICS 6)

- Madagascar: 58 (5 richest, 14 poorest)
- Pakistan: 51 (5 richest, 14 poorest)
- Sierra Leone: 39 (5 richest, 3 poorest)

MICS logo

UNICEF logo
Teach every learner at their level

Percentage of children ages 7-14 who could read a short, simple story (grade 2/3 level) and answer 5 questions about it (Sierra Leone, MICS 2017)
Implementing the Foundational Learning Skills module in MICS
MICS questionnaires

- Household Questionnaire
  - Salt Testing
  - Water Quality Testing
  - Questionnaire: Individual Men (Age 15-49)
    - Every other household
  - Questionnaire: Individual Women (Age 15-49)
  - Questionnaire: Children Age 5-17
    - One child per household
    - Foundational Learning Assessment (age 7-14)
  - Questionnaire: Children Under Five
    - Anthropometry
Quality assurance based on:

- Close collaboration with national survey team / MoE specialists
- Review of 2\textsuperscript{nd} grade textbooks
- Comparison of standard and customized stories
- Translation and backtranslation checks
Selecting language(s) of reading test

- Standard reading tests available in English, Spanish and French.
- Countries use available language(s) and/or translate into local language(s) as needed, with limited localization.
- **What if several languages are used as medium of instruction in early grades?**
- Goal is to measure overall reading skills of target population, regardless of language in which children are able to read.
- Limiting reading assessment to one single language may result in underestimation of reading skills.
- Possible to conduct test in all instructional languages if these are few e.g. Lesotho (Sotho/English), Madagascar (Malagasy/French), Eswatini (Swati/English)
- In countries with multiple language of instruction, need to find a balance between coverage and feasibility. e.g. Zimbabwe (Shona/Ndebele/English)
- It’s a complex discussion that needs to involve relevant experts, especially in contexts with fragmented/reversed language-in-education policies, inconsistency between policy and practice, or political sensitivities
Special considerations when interviewing children

- Verbal consent from mother/caretaker to talk to the child.
- Verbal assent from child to participate in interview.
- Children must be told (in terms they can understand) that they can refuse to answer and withdraw at any time.
- If signs of distress: Interview is paused or ends.
Privacy and Protection:
Parent or adult known to the child should be visible to the child but not be able to overhear.
Child may choose location for interview but it should meet requirements: lack of background noise, no interference/interruptions by others.
How long does it take to collect data about reading and number skills?
Interviewing children requires specialized skills and training

- Child may feel shy / intimidated or unable to express feelings about interview.
- Emphasis on building rapport, putting the child at ease.
- Typical interviewer lacks experience and skills to interview children.
- Fieldwork logistics might not allow for dedicated child interviewers.
- Specialized training, close fieldwork supervision and coaching of enumerators are critical.
- Invest in technical support system.
Training methodology

**DAY 1:** Preparation and recording of interviews with children for demonstration purposes (children identified and logistics arranged prior to training).

**DAY 2:** Full day training session with interviewers (introduction to module, ethical considerations, obtaining consent, interviewing techniques, questionnaire structure and practice, administration protocol, how to record answers, neutrality, what is an error/what is not an error, demonstration by expert facilitator, discussion of recorded interviews)

**DAY 3:** Field practice.

**DAY 4:** Debriefing, clarification of key issues, review of protocols.
Adopting the Foundational Learning Skills module in other national household surveys
Adaptation of the FLS module to Non-MICS Surveys

The **guideline** takes readers through the adaptation processes including:

- **General requirement** (e.g., sample size)
- **Identification of respondent** (e.g., age group)
- **Ethical considerations** (e.g., consent and assent)
- **Module incorporation and adaptation** (e.g. customization of the reading story)
- **Special consideration for field work** (e.g., training)
- **Data processing and tabulation** (e.g., SPSS codes)
- **Analysis** (e.g., generic tabulation plans)

It also provides links to **Toolkit** needed for design, data collection, sampling, data processing, data analysis and dissemination.
Pilot Project in Indonesia to Integrate FL module to SUSENAS

- In 2019 the Indonesian Central Bureau of Statistics (BPS) with support from UNICEF initiated pilot testing of the Foundational Learning Survey (FLS) for primary school-age group children (7-12).
- The FLS would be included in the annual national socio-economic household survey (SUSENAS) which is carried out regularly in March (district level) and September (province level) every year.
- The pilot aims to give recommendations on appropriate survey methodologies in measuring learning outcomes (reading and mathematics).
Thank You
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<tr>
<th>April to May</th>
<th>June</th>
<th>July to Aug</th>
<th>Sept</th>
<th>Oct to Nov</th>
<th>Dec</th>
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**Preparation**
- Instrument & guideline development (adjusting the MICS6 module with Indonesia conditions).
- Technical support from experts from UNICEF HQ and MICS Coordinator in EAPRO to consult specific issues.

**Pre-pilot test**
- Testing the instrument to children aged 7-12.
- Conducted in 4 sub-districts of Sukabumi District with 60 respondents.

**Training**
- Training of trainers
- Training for the enumerators.

**Enumeration**
- The Implementation of FLS pilot in the field.
- Supervision in the field.
- Preparation for data processing.

**Data processing**
- Data processing training.
- Receiving & batching documents.
- Data entry and validation process.

**Finalization**
- Cleaning data.
- Developing final report, syntax, and tabulation plan.