Measurement for Distance Teaching and Learning During COVID-19

11 May 2021
Webinar Housekeeping

Participant audio and video are disabled.

Post questions using the Q&A function at any time.

This session is being recorded.

Closed captioning available in En

The recording and presentations will be shared on the INEE website – inee.org
**TOR OBJECTIVES**

1. Produce, curate, and share guidance and knowledge on distance education in emergencies to inform policy & practice

2. Advocate for quality, safe, and relevant distance education solutions [...], especially the most vulnerable & marginalized young people

**WORKSTREAMS**

1. EVIDENCE
2. KNOWLEDGE MANAGEMENT
3. GUIDANCE & TOOLS
4. ADVOCACY
Distance Education Channel under INEE Community on

https://ineecommunity.slack.com/archives/C01T96QA5J9
INEE Technical Note: Measurement for Education During the COVID-19 Pandemic
INEE COVID-19 Technical Notes: An Evolution

INEE Technical Note on Education During the COVID-19 Pandemic

INEE Technical Note on Measurement for Education During the COVID-19 Pandemic
In August 2020, INEE hosted an online workshop entitled “How do we monitor and evaluate distance learning programs during COVID-19?”

- The goal of the workshop: To allow the EiE community to come together around key technical questions and challenges faced in the COVID-19 response.

- Participants included 24 evaluation specialists from 13 different countries.

- Groups were facilitated by:
  - Annie Smiley (previously, FHI360)
  - Helena Pylvainen & Frosse Dabit (UNRWA)
  - Christine Beggs (Room to Read)
  - Ally Krupar (Save the Children)

- The technical note was then drafted based off of notes and recordings from the online workshop.
INEE Technical Note on Measurement: The Structure

- Overarching Distance Education Measurement Considerations
- Formative Learning and Evaluation
- Measuring Access and Reach
- Measuring Learning Outcomes
- Measuring Social and Emotional Wellbeing
INEE Technical Note on Measurement: Key Takeaways

- Take care of yourself
- Prioritize safeguarding and ethical considerations
- Prioritize heightened transparency
- Consider sampling bias when collecting and analyzing data
- Prioritize understanding and addressing barriers to access for learners
- Report unintended beneficiaries
- Be innovative and creative with program delivery and data collection
Distance Monitoring and Learning: Capturing the Learning Experiences of the most Marginalized Girls in Nepal
Aarambha: Project Overview

Project Locations
- Bara and Rautahat districts (Province-2), Nepal
- Cohort 1 & 2: Two rural municipalities (RMIs) each in Bara and Rautahat districts in each Cohort

Project Components:
- Literacy, numeracy and life skill courses, through Community Learning Centers (CLCs)
- Gender transformative workshops in formal school
- Community engagement and local government mobilization

Project Primary Beneficiaries
- Married & out of school (M/OOS) adolescent girls (10-19 years)
- 1,709 girls enrolled in Cohort 1 (2019/2020), 2,454 girls enrolled in Cohort 2 (2020/2021)
- Nearly 60% of the girls have never been to school and the rest have dropped out at either primary or secondary schools. Over 50% of these girls are married or are promised to be married. They all belong to the most marginalized ethnic communities of Nepal, with over a quarter belonging to Dalit and Muslim families.
Program Adaptation: COVID-19 Output Domains

- Nation-wide lockdown declared from March 24, 2020
- All 83 CLCs & other project activities of Cohort 1 suspended
Distance MEL adapted for-

- Rapid situation assessment (access to information, mobile phones/digital media), risk assessment & parental consent
- Beneficiary tracking - identify vulnerable groups/sub-groups (telephone tracking and follow up)
- Capturing attendance, learning & experiences of distance learning
Primary Approaches

Community-led monitoring

- Leverage community members/contacts in monitoring
  - Mobilization of families and local leaders (e.g., Change Champions), who live together with the girls, building acceptance and trust
  - "Peer-tracking", i.e., taking support from the girls in the same CLCs to find out whereabouts about the other girls who cannot be directly contacted.
  - Frontline staffs (consideration of gender, caste, age, religion) having direct contact with the girls brought into the regular communication chain in order to provide proper orientation

Mobile data collection

- Use of simple mobile phones – the most feasible low-tech solution, since internet penetration in the community is low or non-existent.
  - Bi-weekly (later shifted to monthly) primary beneficiary tracking
  - Weekly recording/reporting tool to capture micro-sessions learning progress
  - Geography-wise working groups formation to collect data
  - Online orientation and training to data collectors,
  - Guidelines and Quality Standard Checklists
  - Phone-based interviews, SMS-based pre/post tests (quan+qual data collected)

Safeguarding and Protection

Capacity building of partner staffs
• Learning measurements adapted to become more flexible, more micro-sessions based
• Redefining ‘at risk of drop-out’ to suit the mobile-based learning.
• In addition to the learning data, the experiences and opinions of the facilitators and families were continuously captured to enrich remote monitoring and assessments.

"I am interested in learning, so even feeling alone at home, learning through mobile makes me engaged. This mobile is provided by my Ami (mother-in-law) and Aba (father-in-law) so I can use it based on my need."
- Cohort 1 participant, married out of school girl, 19 years with 2-years old baby

"I assign homework to the girl after the end of the chapter. In the next day of class I check the homework verbally by asking them to answer the given exercise of the chapter. While in CLC, it was easier to correct and teach them to write by holding their hands. It is quite hard to check and ensure the answer verbally. Some girls who are weak in studies and those who do not have any educated member to assist them find difficult to do their homework and learn."
- CLC local female facilitator
Use of collected data

- Distance (mobile-based) teaching & learning planning, piloting and scale up
- Wider program response and adaptation, for instance- immediate Medium-Terms Response Planning

- Identifying the girls with multiple vulnerability and follow up tracking plan with targeted approach, i.e. reaching the girls most at risk with necessary information, including offering telephonic psycho-social support for the both girls and their families. around COVID-19 and available services in the communities

For instance- PIN partnered with ADRA Nepal to address key Sexual and Reproductive Health (SRH) needs of the girls during pandemic via mobile camps

- Closely monitoring girls at risk of drop out, identify and address ‘new’/’emerging’ learning barriers, etc.

- Protection/safeguarding risk assessment and necessary support/referral.
Key Challenges/Risks

1. Expectation management (esp. during early days as families were expecting calls to be about emergency relief distribution)
2. Reluctance of some family members to allow the girls to use phone (for interviews, attend sessions)
3. Access to mobile phone & technological competency (only a quarter of girls had their own mobile phone, network coverage issues)
4. Unfavourable learning environment at home (space, house responsibilities - house chores, increased expectation from the family-compromised livelihood, increased economic burden and shifting family needs)
5. Capacity development and distant support to facilitators and frontline staffs - remote data collection and monitoring (access to internet, network coverage)
Phone-based Learning Assessments: Lessons from Botswana

Connecting youth to proven life-saving information.

Young love
Young love
Young love
Prior to Covid-19: Scaling Up Teaching at the Right Level in Botswana

Reached 15% of schools cumulatively
COVID Response: Low Tech Education

Low-tech: Calls & Texts & Radio

Parents as Teachers at the household

Rapid evidence in monthly cycles

Immediate policy implications for government & teachers

Only 10-15% of low and middle income countries households have internet but over 80% have mobile phones. Reaching out to 10k numbers.

Parents typically complements to schooling, not somewhere in between complements and substitutes

Rapid randomized trial in partnership with J-PAL and Columbia University comparing text and calls and ideal activity package

Share optimized, simplified package with government and teachers for national scale-up

Young Love
Interventions: SMS Only; SMS + Phone Calls; Targeted

Hello Mma,
my name is Kago from Young Love.

I’m calling to make sure you received our SMS. Has your child, Sunshine attempted to solve any of the SMS problems? Please can we include your child in our call and put the phone on loud speaker so we can all hear the session.

Sunshine, let’s do a question together:
I will share the number 284, how many hundreds, tens and units?
Rapid Trial

~13% initial dropout

~71% consent & interest

Phone assessment
Sample of ASER test used in Botswana

Levelling Tool (Version 5)
Basic Operations

<table>
<thead>
<tr>
<th>62</th>
<th>33</th>
<th>16</th>
<th>91</th>
<th>42</th>
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<tr>
<td>+ 18</td>
<td>+ 49</td>
<td>+ 47</td>
<td>- 52</td>
<td>- 38</td>
<td>- 43</td>
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<table>
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<td>x 3</td>
<td>x 2</td>
<td>x 5</td>
<td>93</td>
<td>53</td>
<td>49</td>
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# The M&E System: An Overview

<table>
<thead>
<tr>
<th>Implementation Phase</th>
<th>Platforms Used</th>
<th>Purpose</th>
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<tbody>
<tr>
<td><strong>Pre-Implementation</strong></td>
<td>• WhatsApp</td>
<td>• Facilitator training &amp; communication</td>
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<tr>
<td></td>
<td>• DT-One</td>
<td>• Disbursing calling airtime to facilitators</td>
</tr>
<tr>
<td><strong>Implementation</strong></td>
<td>• Newline Technology</td>
<td>• Managing SMS outreach campaigns</td>
</tr>
<tr>
<td><strong>Data Collection</strong></td>
<td>• SurveyCTO</td>
<td>• Collecting metrics on facilitator accountability, beneficiary participation, other program-related data</td>
</tr>
</tbody>
</table>

What tools do we use before engaging with beneficiaries?

What tools do we use to reach our beneficiaries?

What tools do we use for Monitoring & Evaluation?
Training for Data Collection

**STEP 1:** Training materials are drafted, iterated & finalized within the Young 1ove team.

**STEP 2:** Training materials are sent to facilitators the day before training.

**STEP 3:** The Young 1ove training team gives a training using WhatsApp to create a virtual “training room.”

Note: Trainers can send notes via PDF, short voice notes and videos to give in-depth explanations of key concepts.
Sample Weekly Recurring Data Collection

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
</table>

**Teachers**

1. Training as needed
2. 1st batch Goal: 5x reached
3. 2nd batch Goal: 5x reached
4. 3rd batch Goal: 5x reached
5. 4th batch Goal: 5x reached

**Guidelines distributed**

**5th batch, as needed**

Data submitted

Data received, cleaned

SMSes sent to treatment group

*Iteration, of phone calling guidelines as needed*

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**Teachers**

*Note: Data submission @ ~ 9:00AM Monday.*

*Note: SMS sent @ ~ 12:00PM Tuesday.*
Results: Learning

- **31% reductions in innumeracy.**
- For the combined phone and SMS group there is an increase in the average numerical operation learned.
- Targeted instruction is more effective on a broad set of competencies.
- Phones can provide a cost-effective and scalable method to deliver educational instruction.
Robustness Tests on Learning Outcomes

Table 4: Robustness Check: Random Problem

<table>
<thead>
<tr>
<th></th>
<th>(1) Addition</th>
<th>(2) Subtraction</th>
<th>(3) Multiplication</th>
<th>(4) Division</th>
<th>(5) Fractions</th>
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</thead>
<tbody>
<tr>
<td>Random Problem 2</td>
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<td>0.024</td>
<td>0.017</td>
<td>-0.039</td>
<td>0.017</td>
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<td></td>
<td>[0.938]</td>
<td>[0.936]</td>
<td>[0.530]</td>
<td>[0.124]</td>
<td>[0.501]</td>
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<tr>
<td>Random Problem 3</td>
<td>0.014</td>
<td>0.007</td>
<td>-0.004</td>
<td>-0.008</td>
<td>-0.023</td>
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<tr>
<td></td>
<td>[0.512]</td>
<td>[0.765]</td>
<td>[0.895]</td>
<td>[0.765]</td>
<td>[0.400]</td>
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<td>Random Problem 4</td>
<td>-0.011</td>
<td>0.036</td>
<td>-0.044</td>
<td>0.005</td>
<td>-0.008</td>
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<td>[0.145]</td>
<td>[0.101]</td>
<td>[0.858]</td>
<td>[0.753]</td>
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<tr>
<td>Random Problem 5</td>
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<td>-0.011</td>
<td>0.002</td>
<td>-0.032</td>
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<td>[0.849]</td>
<td>[0.681]</td>
<td>[0.951]</td>
<td>[0.228]</td>
</tr>
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</table>

- High level of internal reliability tested using randomized problems across the same proficiency levels.
- Learning gains attributable largely to the function of cognitive skill, rather than effort.
## Practical Lessons for Phone-Based Assessments of Learning

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Specific Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Protect Children</td>
<td>• E.g. low-stakes, ask parent for privacy</td>
</tr>
<tr>
<td>2. Test reliability of measures</td>
<td>• Build on prior assessments (e.g. ASER), include randomized sets of problems</td>
</tr>
<tr>
<td>3. Keep instructions simple &amp; practice first</td>
<td></td>
</tr>
<tr>
<td>4. Some assessments more conducive than others</td>
<td>• E.g. reading need to combine with text</td>
</tr>
<tr>
<td>5. Account for sample bias</td>
<td>• Demographic info and sample comparison</td>
</tr>
<tr>
<td>6. Keep it short</td>
<td>• 20 minutes of call-time maximum</td>
</tr>
<tr>
<td>7. Experiment to get phone response take-up</td>
<td></td>
</tr>
<tr>
<td>8. Establish rapport</td>
<td></td>
</tr>
<tr>
<td>9. Choose cost-effective approaches</td>
<td>• Two-way texting logistically harder and lower take-up so did phone call</td>
</tr>
</tbody>
</table>
Publications

• Stemming Learning Loss During the Pandemic: A Rapid Randomized Trial of a Low-Tech Intervention in Botswana

• Practical Lessons for Phone-Based Assessments of Learning
Re a leboga!
Designing and Monitoring DTL Interventions: A guide for projects and implementers

May 2021
Why examine distance teaching and learning?

- To identify which characteristics hinder or enable a successful DTL approach across GEC projects
- To support projects in thinking about the areas they need to consider when creating or adapting a DTL intervention
- To share findings not only across the GEC portfolio but also with the wider sector
Developing and Piloting the Guide

➔ The FM collaborated with the ETH to create this DTL guide.
➔ Projects contributed to the guide content through filling in a tool to show what their DTL approaches looked like.
➔ A workshop was held between the FM and ETH to draw out key themes from the project tools, and determine areas to prioritise (i.e. the domains).
➔ Project feedback/reflection workshop.
➔ GEC projects piloted the guide (3 in Nepal, 2 in Uganda, 1 in Malawi).
➔ Projects selected country team members to reflect on their DTL interventions in light of the DTL guide.
➔ Project team members and an FM Teaching and Learning Technical Advisor discussed the highlights/key aspects of the completed guide, including:
  - strengths and challenges of their DTL approaches,
  - value/usefulness of the tool itself,
  - future application of the tool.
Team Girl Malawi: Adaptation Process

Domain 1: Local Context and Education System
- During school closure Ministry of Education delivered radio and internet based distance teaching.
- Rapid Assessment (12% of learners) - CBE learners were asked how they would like to continue learning if schools remained closed: radio (56%), group study (42%) and phone calls (38%).

Domain 2: DTL Modality
- 88% had no access to phones. 56% of those contacted do not have access to a radio and 69% do not have internet.
- Another type of DTL needed to be identified – small group teaching in Study Circles.

Domain 3: Content and Curriculum
- Reduced number of subjects from 7 to 4 to give more time to core subjects (literacy and numeracy).

Domain 4: Pedagogy and Assessment
- Teacher Guides were modified, teachers’ roles changed and re-trained, and home-learning approach introduced.
TEAM Girl Malawi: MELA & Impact

- TGM worked quickly to understand the context, stakeholders, and infrastructure
- Aligned to government overall goals but not all strategies because of the nature of the project (learners, interventions)
- More investments were needed for small group learning and additional DTL capacity building
- Content was redesigned in stages, due to the need to adapt quickly
- Strategies for remote assessment and quality of learning developed, compliant with Government Covid-19 restrictions
- Adapted key lessons from DTL for post Covid-19, tracer studies, home learning
  - DTL framework helped to conduct reflection on our DTL strategies, and absence helped innovation
  - The tracer study helped to unearth safeguarding incidents, which were followed up on and resolved by the TGM safeguarding team, and victims given relevant support