

# **LEAP Final Deliverable(s)**

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**Aid for Rural Education Access Initiative** 

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# **TABLE OF CONTENTS**

| Executive Summary   | 5  |
|---|----|
| Part 1: Overview of Program Design  | 8  |
| Deliverable 1   | 9  |
| Introduction  | 9  |
| Learning Journey in Context   | 9  |
| Context   | 9  |
| Stage 1: Selection  | 11 |
| Stage 2: Learning Delivery  | 12 |
| Stage 3: Validation   | 12 |
| Deliverable 2   | 14 |
| Introduction  | 14 |
| Understanding The FastTrack Facilitator Program                               | 14 |
| Facilitator selection criteria  | 14 |
| Community-based facilitator selection process                                 | 15 |
| Challenges in facilitator selection   | 15 |
| Understanding the facilitator journey   | 15 |
| Facilitator outcomes & measures of success                                    | 16 |
| Facilitator Training  | 17 |
| Initial training  | 17 |
| Phase 1 training  | 17 |
| Phase 2 training  | 18 |
| Ongoing support   | 18 |
| Weekly and Monthly reviews  | 18 |
| Training documents/framework  | 19 |
| Trainer guide   | 19 |
| Facilitator manual  | 19 |
| Empowering facilitators and streamlining support - the facilitator manual 2.0 | 21 |
| Scaling Training & Support - A Framework For Decision-Making                  | 22 |
| Takeaways and Recommendations   | 24 |



| Part 2: Recommendations for Program Evaluation    |    |
|---|----|
| Deliverable 3                                     | 26 |
| Introduction                                      | 26 |
| Developing a RCT Template for FastTrack           | 26 |
| Key research questions                            | 26 |
| Steps to conducting RCT / timeline (12-15 months) | 27 |
| Pre-registration                                  | 27 |
| Ethical approval                                  | 27 |
| Sample  | 28 |
| Treatment Conditions                              | 28 |
| Statistical Power                                 | 29 |
| Defining Outcomes                                 | 29 |
| Collecting Data                                   | 29 |
| Deliverable 4                                     | 31 |
| Introduction                                      | 31 |
| Assessments                                       | 31 |
| Primary Outcomes                                  | 31 |
| Secondary Outcomes                                | 33 |
| Child   | 33 |
| Parent  | 35 |
| Facilitator                                       | 35 |
| Relevant Covariates and Sub-Group Identification  | 36 |
| Child   | 36 |
| Identifying Children with Disabilities            | 37 |
| Teacher/Facilitator Measures                      | 38 |
| Takeaways and Recommendations                     | 40 |
| APPENDIX A  | 41 |
| APPENDIX B  | 43 |



# **Executive Summary**

### Introduction

244 million children are currently out of school worldwide.<sup>1</sup> These children are at high risk of never obtaining functional literacy and numeracy, significantly jeopardizing their futures. AREAi has developed a model to teach out-of-school children in IDP camps in Nigeria functional literacy and numeracy skills, and are planning to scale their model to reach 10,000 children in 2023 and 100,000 children over the next 5 years. This report summarizes the learner journey of children in AREAi's program, outlines alternative approaches to scale-up, and develops a template and comprehensive assessment guide for evaluating the program's impacts in the short- and long-term. The report provides a useful template for other programs aiming to support vulnerable children's academic development, as well as any organization planning to scale-up their model.

### Organization's role & strength

Established in 2014 and registered in 2017, Aid for Rural Education Access Initiative (AREAi) is a for-purpose nonprofit grassroots initiative that works with and in under-resourced schools and marginalized communities, providing technical and infrastructural support to scale learning outcomes and drive tangible academic achievement for vulnerable children and youth from low-income families. Its mission is to organize, mobilize, and channel human, material, physical, and financial resources towards creating multiple alternative and informal learning opportunities for marginalized populations to attain self-reliance. Through its programmatic interventions focused on foundational skills development, digital equity, girls' education, and school-to-work transitions, the organization has supported over 45,000 beneficiaries from 23 communities in 18 states across Nigeria. AREAi has worked with and received financial support from organizations such as the United Kingdom Foreign Commonwealth and Development Office, the Malala Fund, the Coca-Cola Foundation, Global Changemakers, One Young World, and the Queen's Commonwealth Trust, among others.

### **Need summary**

Having recently been assessed for scale-readiness by an independent body and placed at Level 2 on the widely-accepted **Nesta Standards of Evidence framework**<sup>2</sup>, AREAi highlighted,

<sup>&</sup>lt;sup>1</sup>United Nations (2022). UNESCO chief calls for transforming education, with 244 million still out of school. https://news.un.org/en/story/2022/09/1125952#:~:text=Around%2012%20million%20children%20may%20never%20s ee%20a%20classroom%2C%20UN%20data%20reveals

<sup>&</sup>lt;sup>2</sup> At Level 2 in the Nesta framework, "[you] capture data that shows positive change, but you cannot confirm you caused this" (Puttick, R., & Ludlow, J., 2013, p. 3). In order to strengthen their evidence base and advance to Level 3, AREAi must demonstrate causality. Further details about the framework are accessible at <a href="https://media.nesta.org.uk/documents/standards">https://media.nesta.org.uk/documents/standards</a> of evidence.pdf



among others, three key objectives:

- Objective 1: Identify key questions to position for scale
- Objective 2: Gain insights to increase impact return on investment
- Objective 3: Strengthen the evidence base for FastTrack

### Solution summary & next steps

We were pleased to come alongside AREAi to offer support in two overarching areas, with accompanying deliverables:

### Overview of Program Design

- Deliverable #1: End-to-end conceptual overview of the learner journey within the context of the program
- Deliverable #2: Understanding the facilitator role in order to develop a framework for a scale-ready facilitator development program

### Recommendations for Program Evaluation

- Deliverable #3: A template to conduct a RCT to assess the impacts of the FastTrack program on children's functional literacy and numeracy
- Deliverable #4: Recommendations for appropriate assessments to measure learning and other relevant outcomes

|  | Part 1 Overview of Program Design                 |  | Par<br>Recommen<br>Program E                    | dations for                             |
|--|---|--|---|---|
| AREAi Objectives   | Deliverable 1:<br>Mapping the<br>Learning Journey | Deliverable 2:<br>Facilitator<br>Training &<br>Support | Deliverable 3:<br>RCT Template for<br>FastTrack | Deliverable 4: Program Assessment Tools |
| Obj 1: Identify key questions to position for scale          | ~   | ~  | <b>~</b>  | V                                       |
| Obj 2: Gain insights to increase impact return on investment | ~   | ~  | ~   | V                                       |
| Obj 3: Strengthen the evidence base for FastTrack            |   |  | <b>~</b>  | V                                       |

### Collectively, these deliverables serve as:

- A documentation of the core components and ancillary activities of the FastTrack program
- A reference, resource, and guide AREAi can draw upon as they develop future iterations of FastTrack
- A tool to help AREAi highlight opportunities for engagement in their conversations with potential funders, partners and supporters



We hope that our documentation of the FastTrack model, along with a framework for assessing its impact, spark scholarly interest and innovation / entrepreneurship so that more children, particularly in marginalized communities, have the opportunity to gain functional literacy and numeracy skills and achieve their life goals.



# Part 1: Overview of Program Design

Understanding how FastTrack works (context, processes, key interactions) to derive insights and identify key questions for scale-readiness



### **Deliverable 1**

### Introduction

FastTrack<sup>3</sup> is a technology-enabled and self-assisted accelerated foundational skills development program designed to support out-of-school refugee children in acquiring functional literacy and numeracy skills (ability to read, write and do basic arithmetic) which are vital, indispensable foundational skills needed for further higher education and to lead an empowered, self-determined life. By design, FastTrack is a low-cost remedial learning program aimed at closing learning gaps and building the foundational literacy and numeracy competencies of out-of-school children in either English or in their Indigenous language (Mother Tongue) by adopting marginalized communities with a high population of children who are out of school and do not have access to formal or informal education.

The program combines 3 proven, independent teaching and learning approaches, namely:

- Mavis Talking Book and Pen: an offline digital pen with audio capabilities, and a book with unique dot patterns and learner-friendly graphics to aid understanding and comprehension.
- Teaching at the Right Level (TaRL): Pioneered by education NGO Pratham, is an approach to accelerate learning and ensure that children gain foundational Hausa reading and mathematics skills.
- Mother tongue-based literacy acquisition model: a dual language approach which involves using Hausa as a bridge to learn English.

There are two key stakeholders in the FastTrack program - the learner and the facilitator. Deliverable seeks to explain and visualize the journey of one of these stakeholders - the learner.

### Learning Journey in Context

The FastTrack program is implemented in three broad stages: Selection, Learning Delivery and Validation. At each stage, the Learner experience is Facilitator-guided, framed around the **Teaching-at-the-Right-Level (TaRL) approach**<sup>4</sup>, and tailored to the Learner's context.

### Context

#### FastTrack Learner Profile

- Location: FastTrack targets Learners living in camp sites and communities designated for Internally Displaced Persons (IDP Camps) in the Northern region of Nigeria.
- Biographics:
  - Between the ages of 5 to 14 (FastTrack's target age range)

<sup>&</sup>lt;sup>3</sup> Excerpt from FastTrack Operational Guide for Facilitators developed by AREAi

<sup>&</sup>lt;sup>4</sup> The TaRL approach is described in detail at <a href="https://www.teachingattherightlevel.org/">https://www.teachingattherightlevel.org/</a>.



- Male and Female Learners
- Background
  - Displaced from their homes across the Northeastern states
  - o The primary language spoken is *Hausa*
  - o Most are Muslims; a few identify with the Christian faith

### **Stakeholders**

- Community Leaders: For FastTrack's target population, community leaders are trusted and their decisions respected. They play an influential role in mobilizing students and parents, and recommending community-based facilitators.
- Parents: Though not directly involved in the FastTrack program, AREAi has observed anecdotally that parental influence and support contributes to program completion. Other considerations around parental influence are discussed in Deliverable 4.
- Facilitators: They play an essential role in the end-to-end implementation of the FastTrack program.
  - Community-Based Facilitators: Nominated by their community leaders, community-based facilitators typically have a basic teaching certificate and 2 or 3 years of teaching experience. As recognized community members, their influence on Learners may extend outside the formal learning environment.
  - NYSC Teaching Fellows: Teaching fellows are recruited from the National Youth Service Corps (NYSC), which places recent university graduates in a one-year service assignment outside their

### **EXPLORE**

### How does the learner context impact learning outcomes?

Considering the unique and sensitive context within which the FastTrack program is typically implemented, it would be worthwhile to identify the influence of specific contextual factors on learning outcomes. Understanding how context plays into the Learner experience at each stage of the program could help surface causality and opportunities to improve learning outcomes. A few recommendations are offered in Deliverable 3 and Deliverable 4.

### How does parental influence contribute to Learner engagement?

There is an opportunity to substantiate with evidence AREAi's anecdotal observation that Learners are more likely to complete FastTrack if their parents demonstrate interest in their learning experience.



### Stage 1: Selection

Learner selection is on the basis of age, the qualifying range being 5 years - 14 years old. Any student meeting the age criteria who wishes to participate in the program is eligible for enrollment. Parental consent is assumed.

Learners participate in two key activities during the Selection stage:



#### **Baseline Assessment**

On the day designated for program enrollment, *community leaders* mobilize children who qualify to participate in a baseline assessment. The assessment measures proficiency in literacy and numeracy in line with the TaRL system. Assessments are conducted by trained facilitators, comprising community members and NYSC teaching fellows.

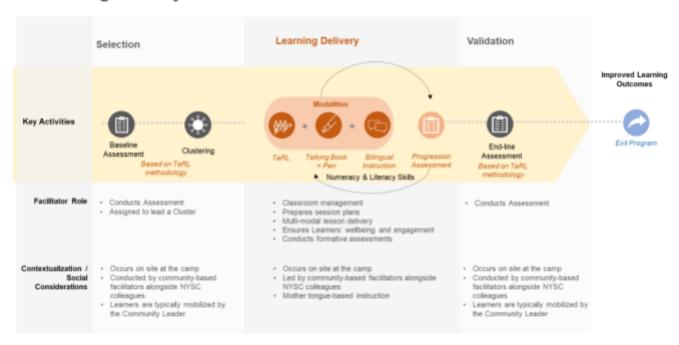


### Grouping

The baseline data is analyzed and Learners are placed into learning levels<sup>5</sup>--which may vary for literacy and numeracy.

- Literacy Learning Levels progress from Beginner → Letter → Word → Paragraph → Story
- Numeracy Learning Levels progress from Beginner → One-digit → Two-digits
   → Subtraction → Division

### Learning Delivery at A Glance



<sup>&</sup>lt;sup>5</sup> The FastTrack program designates literacy and numeracy learning levels on a similar scale as the TaRL system: <a href="https://www.teachingattherightlevel.org/the-tarl-approach/assessment/">https://www.teachingattherightlevel.org/the-tarl-approach/assessment/</a>



### Stage 2: Learning Delivery

Following assessment of their individual learning levels, Learners are placed in groups for foundational learning in literacy and numeracy. This component of the program runs for **6 months**. Learning delivery is multimodal, comprising direct facilitation based on TaRL approach, use of the talking pen, peer interaction, and formative assessments.

The core modalities for FastTrack learning delivery include:



### Teaching-at-the-Right-Level (TaRL)

A scalable and effective remedial methodology that helps children develop basic reading and mathematics skills, using oral tests to sort children into distinctive groups that match their learning levels. FastTrack contextualizes the TaRL model with its emphasis on mobilizing community-based facilitators alongside those recruited through the NYSC scheme.



### Mother tongue-based literacy acquisition model

A dual language approach which involves using Hausa as a bridge to learning English.



### Mavis talking book and pen

An offline digital pen with audio capabilities paired with a book featuring unique dot patterns and learner-friendly graphics to aid understanding and comprehension. The learner interacts with this tool by touching the pen to text and images to listen to the corresponding audio.

### Learning Content

Facilitators are granted autonomy and creative liberty in developing lesson plans based on the scheme of work provided by AREAi. Facilitator involvement and preparation for this process is discussed in greater detail in <a href="Deliverable 2">Deliverable 2</a>. AREAi maps learning to the nationally approved literacy and numeracy curriculum through the use of the Mavis talking book, which is verified by Nigeria Education Research and Development Council (NERDC).

### Stage 3: Validation

In keeping with the TaRL methodology, Learners' literacy and numeracy skills are regularly assessed throughout the FastTrack program to determine any changes in their learning levels.



#### **Progression (Formative) Assessments**

These are integrated throughout the program duration to identify learners who meet the benchmark to move up to a higher level. Facilitators conduct the assessments orally, through a one-on-one interaction with each Learner. Learners who demonstrate progression in their reading and numeracy skills are advanced to a higher learning level group. A Learner may progress many times within the 6-month period.





#### **Endline Assessment**

This is conducted in the final week of intervention by Facilitators. Results are compared with results from the baseline assessment to measure learning outcomes. Findings are shared with key stakeholders in the community, funders and partners/prospective partners.

### **ENHANCE**

### The Learner-Facilitator Interaction

The FastTrack program is driven largely by Facilitators, who not only help operationalize the TaRL methodology, but may also influence learning outcomes through interactions outside the classroom (with specific reference to community-based Facilitators). Given their critical role, Facilitator success is a key determinant of the program sustainability and scalability. The organizing body for TaRL identifies ongoing facilitator development as a key program pillar, without which "implementation can break down and undermine learning." 6

With these considerations in view, we propose that particular attention be paid to Facilitator development and training standardization. Recommendations and a framework for developing a scale-ready training program are presented in <u>Deliverable 2</u>.

12

<sup>&</sup>lt;sup>6</sup> Teaching at the Right Level. (n.d.). *Is TaRL right for my context?* TaRL. https://www.teachingattherightlevel.org/home/is-tarl-right-for-my-context/



# **Deliverable 2**

### Introduction

Facilitators are key stakeholders in the FastTrack program, with the program implementation relying considerably on their ability to perform their duties consistently well. While all of the facilitators are compensated for their time, the value exchange between AREAi, the learners and the facilitators is based significantly on trust, shared beliefs and an intrinsic need to deliver outcomes for learners. With the program's success and scalability relying on the performance of the facilitators, it is imperative for AREAi to invest in ensuring that there is a structured, robust framework for training and supporting facilitators throughout the FastTrack journey.

Currently, facilitators are being trained at the beginning of the program as well as through monthly refresher sessions by subject matter experts from AREAi. Ongoing classroom observation and feedback programs, while implemented, do not follow a standard approach, relying heavily on the expertise of the evaluator from the AREAi team. From the perspective of readiness for scale, AREAi needs to consider designing a cost-effective training and ongoing support program that is replicable, accessible to all participants and delivers value without compromising on the learners' experience.

In this deliverable, we seek to address this need by offering a framework within which AREAi can build a facilitator development program that is scale-ready.

### Understanding The FastTrack Facilitator Program

The FastTrack program engages two types of facilitators:

- NYSC teaching fellows assigned to AREAi and
- community-based facilitators identified via interactions with community stakeholders.

The facilitators are typically in the age range of 23 to 37. While the NYSC teaching fellows have university level education, community-based facilitators have varying qualifications, ranging from technical school certificate to the Nigerian Certificate in Education (NCE) and university degree. The NYSC fellows don't have any teaching experience, with about 50% of them having a background in education-related studies. The community-based facilitators, however, typically come with 2-3 years of teaching experience.

### **Facilitator selection criteria**

AREAi uses two main criteria in the selection process. These criteria are common for both the NYSC teaching fellows and the community-based facilitators They are:

- a. Passion for education development
- b. Working proficiency in English and Hausa
- c. (optional) Prior teaching experience.



### Community-based facilitator selection process

Community-based facilitators are selected through a process of discussion, observation and engagement with community members. Discussions with key stakeholders in the community (such as camp heads) helps the AREAi team identify adults who

- would potentially be interested in participating in the program,
- demonstrate English and Hausa speaking proficiency and
- (optional) have prior teaching experience.

### Challenges in facilitator selection

The biggest challenge identified by AREAi in facilitator selection is in finding adults with working knowledge of Hausa. English, though not an official language, is widely used as the language of communication and therefore, a large majority of adults have working knowledge of English. It is much more challenging to find adults with working knowledge of Hausa while also meeting other selection criteria as Hausa is one of several local languages and therefore not as widespread as English.

The facilitator selection process, though based on only simple criteria, is currently carried out in an ad-hoc manner, depending solely on the judgement of the AREAi subject matter experts. From the standpoint of scalability, this can quickly become a bottleneck, potentially leading to reduced cost and/or ineffective selection.

### **ENHANCE**

To streamline and standardize the selection process, AREAi can consider designing a facilitator selection criteria checklist. It should list the key criteria for selection, with guiding questions and a response evaluation rubric. This will significantly reduce ambiguity in the selection process.

- a. Questions must be simple, conversational and easy to adapt based on the context.
- b. The questions must be easy to translate into Hausa to allow for evaluation of both English and Hausa proficiency.
- c. The rubric should be straightforward, not requiring the evaluator to put in a lot of thought into each response. It could be a simple 3-point scale Low proficiency, marginal proficiency, high proficiency separately for English and Hausa along with written notes capturing the candidate's passion (or lack thereof) for education development, teaching proficiency, etc.

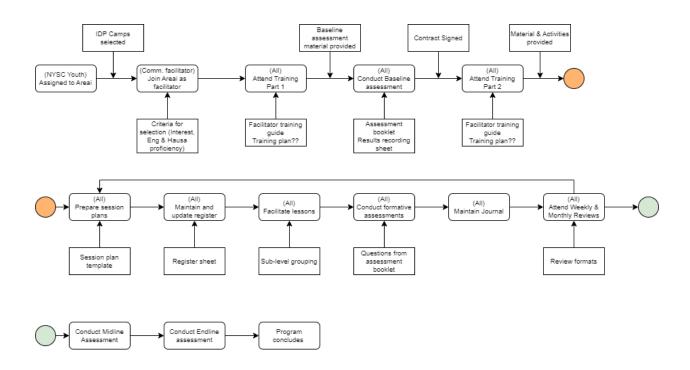
### Understanding the facilitator journey

The facilitator's role in the FastTrack program requires a wide variety of skills across administration, teaching, counseling and evaluation. All of these skills are required, in different forms, on a daily basis. In particular, facilitators need to be able to

- Manage the learners in their class,
- Prepare session plans based on the level of learners they are assigned
- Administer the session plans, combining instruction, activities and assessment
- Guide and support their learners, ensuring their wellbeing and engagement



Given the short duration of the program (6 months), facilitators have very limited time to build trust with their learners and deliver results. AREAi's approach, therefore, is to streamline and standardize tasks to the extent possible, with the expectation that facilitators, once trained, will follow the guidelines as suggested, ensuring consistency in the delivery of the program.



### Facilitator outcomes & measures of success

For AREAi, facilitators drive program implementation. For that reason, the outcomes expected from facilitators must be closely aligned to the outcomes AREAi wishes to achieve.

In the long term, AREAi expects to deliver on the following outcomes:

- a. Learners develop skills that allow them to become independent learners capable of engaging in personalized lifelong learning activities
- b. The FastTrack program impacts 10,000 learners in 5 years
- c. Create an evidence base that contributes to research on the use of TaRL + bilingual approach in informal learning settings.

Since facilitator performance impacts all of the above outcomes, it would follow that facilitator outcomes must align with overall organizational outcomes. Therefore, by the end of the their time on the FastTrack program, facilitators must ideally have:

- a. Helped their learners achieve the intended outcomes, which include
  - Literacy and numeracy learning outcomes as defined by the TaRL methodology



- ii. Improved learner confidence and ability to continue learning at a regular primary school, if they so choose.
- b. Built (with AREAi) a repository of successes, setbacks and ideas that can be helpful for other facilitators and contribute to research on the methodology
- c. (for those identified as trainers) empowered another group of facilitators who can carry forward the FastTrack program.
- d. Assisted learners in developing the confidence and self-belief to engage with the world around them, providing additional support, where required, to learners presenting with any form of disability.

### **EXPLORE**

For facilitators to perform their work to the best of their abilities, they must be aware of the outcomes expected from them. Currently, the facilitator training guide only lists project outcomes. Ideally, the facilitator manual should clearly state the role of a facilitator and the outcomes expected of them, along with indicators that will help them understand what they can do in order to achieve those outcomes.

### Facilitator Training

The FastTrack facilitator training program is designed to ensure that facilitators

- i. Understand the vision of FastTrack
- ii. Know how to facilitate learning (not focused on end goal but on the learning process)
- iii. Know how to deploy assessment

### Initial training

Training for facilitators is conducted in two phases. Phase 1 is at the start of the program, focusing primarily on the baseline assessment and its delivery. Phase 2 is a more extensive training program that prepares facilitators for their ongoing role in the program.

### Phase 1 training

The first phase of training is conducted at the start of the program, after community interactions have been completed. Both NYSC teaching fellows as well as newly selected community-based facilitators attend this session.

The objective of this training session is to

- give facilitators a brief introduction of FastTrack and train them on how to conduct baseline assessments using the TaRL assessment tools in English and Hausa
- collect contextual information on the community-based facilitators' such as name, previous education, teaching experience, etc.



The training is conducted by a Subject matter expert from the AREAi education programs and M&E team.

### Phase 2 training

The second phase of training is conducted after the baseline assessment has been completed and children have been assigned to different levels. It is carried out over 2 days, focusing primarily on

- the FastTrack methodology and
- the pathways for facilitating and managing a classroom.

Facilitators are exposed to the FastTrack learning approach and the tools they will use to deliver on this approach, including the FastTrack level-based curriculum (derived from the TaRL methodology), activity guides for the different learning levels, session planning, group management and assessments. This is made available to the facilitators in the form of a Facilitator manual, a comprehensive document covering all aspects of a facilitator's role on the FastTrack program.

Group sessions are conducted to help facilitators put their learning in context and demonstrate their understanding.

Based on the observations of individual performance of the facilitators by the AREAi Education Programmes team during the training program, each facilitator is assigned to a specific learning level. They are then provided with all materials needed for effective classroom delivery such as

- writing materials for facilitators and learners,
- learning aids,
- curriculum,
- attendance register,
- Mavis talking books and pens,
- Weekly review sheet to document, on a daily basis, what happens in the classroom, as well as successes and challenges.

The training is conducted by subject matter experts from the AREAi Programs and M&E team, using the AREAi facilitator manual as reference.

### **Ongoing support**

Ongoing support to facilitators is provided during weekly and monthly review sessions, driven by AREAi team members and held either in the community or at the AREAi office.

### Weekly and Monthly reviews

Weekly and monthly facilitator reviews are done by members of the AREAi programs and M&E team. Facilitators are provided a weekly review sheet in which they are expected to fill in daily classroom events as well as successes and challenges. This document guides the discussion during the review process.



In addition, a representative from the AREAi program and M&E team carries out a monthly classroom observation with the objective of identifying potential challenges for the facilitator and supporting them with ideas to help overcome these challenges. For this purpose, a standardized monitoring tool is used.

### Training documents/framework

To streamline the facilitator training process and build a shared understanding, AREAi has developed a set of resources for the trainer and the facilitators. Of these, the two key documents are the trainer guide and the facilitator manual.

### Trainer guide

Currently, the facilitator manual is used as a guiding document to plan and conduct training programs for facilitators. AREAi subject matter experts ensure that all components of the facilitator manual are covered, while also giving adequate room for practice and reflection.

#### Facilitator manual

The objective of the facilitator manual is to provide facilitators with a document that they can refer to for a better understanding of all aspects of their role. The manual is comprehensive and covers the following:

- 1. Overview of FastTrack
- 2. Assessment and Grouping
- 3. Approach to learning
- 4. Activities
- 5. Session planning
- 6. Managing the group

### **EXPLORE**

- 1. AREAi can optimize resources, time and costs by combining the phase 1 and phase 2 training.
  - a. At scale, this will reduce the need for planning logistics multiple times
  - b. This can be supplemented with a review/refresher session at the community while conducting the monthly reviews.
  - c. AREAi can consider making a **digital version** of the training available to facilitators after the in-person training. This will allow facilitators to remind themselves of key information and go back to it as and when necessary. A few things to consider while choosing this option:
    - i. It is not possible to ensure complete, sustained attention from the facilitator, particularly on the digital version. It would be worthwhile to consider multiple ways of presenting the content, such as audio, video, highlighted text, etc.
    - ii. This could be a great opportunity for AREAi to get feedback on facilitator knowledge. Including a short quiz on key concepts could serve the dual purpose of helping both the facilitator themselves and AREAi evaluate content understanding.
    - iii. The digital version of the training should align completely with the facilitator manual, including, where possible, references to related parts of the manual.



2. Scenario-based case studies can help trainees apply what they have learned and get feedback from their peers. AREAi could also consider making these scenario-based exercises the focus of the training, giving trainees access to the reading material beforehand and answering questions at the training session. It is important, however, to ensure that the training plan has opportunity for reflection, role-play and review.

Here are some sample scenarios mapped to the purpose they can serve:

- a. Managing different skill levels

  You have given your learners a paragraph reading activity. You notice that 4 of the learners completed the activity very fast and are now distracted. 2 other learners are struggling to read a few words at a time. What is the best course of action in this scenario?
- b. Making effective session plans
  One of your co-facilitators mentioned that the last time she conducted a session, she
  ran out of materials for her learners and was forced to come up with a new plan in the
  middle of a session, which was stressful. She asked for your help in planning her next
  session and asked for a sample session plan. What process would you recommend to
  her? What would your sample session plan look like?
- 3. AREAi should consider designing a trainer presentation/guide that is easy to use and captures only the key information that needs to be communicated to facilitators.
  - a. It should ideally be in a format that is easy to present (like a presentation).
  - b. The key information should be presented in a short and concise manner with detailed notes for the trainer as a footnote.
  - c. To make the sessions more engaging and productive, the training should focus more on activities and less on information sharing.

### **ENHANCE**

- From the perspective of facilitator development, it would be helpful for AREAi to design a
  knowledge assessment for facilitators, to be done immediately after training, followed by
  periodic assessment through the course of their journey. This will allow AREAi to identify when
  facilitators may need refresher training. In <u>Deliverable 4</u>, we discuss approaches to assessing
  facilitator knowledge.
- 2. The monthly review template is currently both a reflection and monitoring tool. To create opportunity for facilitators to self-assess, pause and evaluate their own progress, AREAi should consider using the monthly review template purely as a self-reflection tool
  - This is an opportunity for facilitators to reflect on their work and their learners' progress. The tool should allow for free-flowing reflection in addition to guided questions.
  - b. The objective of the template should be to offer a judgment-free tool for them to voice their thoughts. Therefore, it must not be tied to payment or other metrics.
  - c. The monitoring tool, on the other hand, is for use by the trainer and therefore, a payment sign off can be included in that document, as indicated below.
- 3. The monitoring tool is meant to be used by trainers to record their unbiased evaluation of a facilitator's performance/progress and therefore ideally should not leave any room for subjectivity.
  - a. Answers to open-ended, subjective questions can be captured using a 5-point scale and rubric, potentially capturing how often it occurs (never all the time). This will also



be useful to track changes and improvements over time.

b. Evaluator comments can be captured but ideally must only be used for giving feedback to the facilitator.

### Empowering facilitators and streamlining support - the facilitator manual 2.0

The facilitator manual is the key guiding document given to facilitators during the training program. The objective of this document is to provide facilitators a ready reckoner to be used at any point in their journey, when they need to revisit, remember or revise any of the activities of guidelines taught to them during the training.

Given this objective, there is opportunity for AREAi to streamline the facilitator manual. The content in the manual is sufficiently extensive but the manner in which it is presented could make it hard for a facilitator to quickly find relevant information when needed. By re-aligning the content in such a manner that it addresses questions or challenges a facilitator might have, AREAi can ensure that when facilitators need something in particular, they will know where to look.

Standardizing the facilitator manual will also be helpful should AREAi choose to scale facilitator training through third-party partner organizations or individuals.

Things to consider while designing the facilitator manual:

- 1. This is for the facilitator, not a trainer. A trainer should be provided a separate training guide that complements this manual.
- 2. It would be helpful to design the manual for an at-scale context in which there are no AREAi staff to support & guide facilitators (only other third-party facilitator-trainers).

The following is a sample outline for the manual, designed based on the content in the current manual as well as aspirations as expressed by AREAi. The outline considers the following overarching objectives:

- a. Facilitators must understand the vision and background of FastTrack
- b. Facilitators must know how to facilitate learning and deploy assessments
- c. Facilitators must understand the support provided by AREAi and the expectations from the facilitators in this regard

### Suggested outline for the facilitator manual:

- AREAi and the FastTrack program
  - About AREAi
  - Objectives of the FastTrack program
  - Key components of the FactTrack program
- Your role as a facilitator
  - Outcomes & expectations
  - Your daily activities
  - Classroom & learner management FAQs
- Assessing learner progress
  - Baseline assessment
  - Ongoing assessment
  - o Endline assessment



- Planning sessions
  - Curriculum
  - Activities
  - Grouping learners
  - Helpful tips
- Reflection & reporting
  - Weekly reflection
  - Monthly review sessions
- Frequently asked questions

### Scaling Training & Support - A Framework For Decision-Making

For AREAi, scalability of the program is a key consideration in their endeavour to impact 100,000 students in 5 years. With standardization in implementation hinging on facilitator understanding and performance, it is important for AREAi to be able to ensure that comprehensive, structured and standardized training is provided to all facilitators.

The table below provides guidelines to assist AREAi in evaluating two primary approaches to scaling training and weigh their relative benefits and risks. The first one is the current approach of training, where AREAi SMEs control both training delivery and ongoing support. The second is based on the Cascade model, a top-down model of disseminating training through a train-the-trainer approach. Finally, a hybrid model has been proposed, which combines parts of both the current and the Cascade approach.

As the Cascade model is a new approach for AREAi, guidelines for how this can be applied in the context of FastTrack, along with constraints & risks, have been included in Appendix A.

|        |                         | Current  | Cascade  | Hybrid   |
|--------|-------------------------|--|--|--|
| Design | Model                   | Training: Conducted by AREAi SMEs Ongoing Support: Provided by AREAi SMEs  | Training: Conducted by secondary trainers Ongoing support: Provided by secondary trainers  | <b>Training:</b> Conducted by AREAi SMEs <b>Ongoing support</b> : Provided by secondary trainers   |
|        | Pedagogy/<br>Curriculum | <ul> <li>Go through the facilitator<br/>manual</li> <li>Practice facilitation in peer<br/>groups</li> <li>Periodical reviews +<br/>refresher sessions</li> </ul> | <ul> <li>Scenario/case study driven<br/>training</li> <li>Standardized training content<br/>with limited flexibility</li> <li>Periodical reviews + refresher<br/>sessions</li> </ul> | <ul> <li>Scenario/case study driven training</li> <li>Standardized training content with<br/>limited flexibility</li> <li>Periodical reviews + refresher<br/>sessions</li> </ul>   |
|        | Benefits                | <ul> <li>Greater control on content &amp; outcome</li> <li>Opportunity to evaluate facilitators</li> </ul>   | <ul> <li>Easier to disseminate without<br/>the need for SMEs.</li> <li>Opportunity for decentralized,<br/>cluster-level support groups</li> </ul>                                    | <ul> <li>Greater control on content &amp; outcome</li> <li>Opportunity to gather baseline data on facilitator skills</li> <li>Easier to provide support without dependence on SMEs</li> <li>Opportunity for decentralized, cluster-level support groups</li> </ul> |



| Effectiveness | Dissemination | <ul><li>Slow but controlled</li><li>High dependence on SMEs</li></ul>  | <ul> <li>Quicker dissemination</li> <li>Low dependence on SMEs</li> <li>Risk of dilution and misrepresentation</li> </ul>  | <ul> <li>Slow but controlled</li> <li>Lower dependence on SMEs</li> <li>Lower risk of dilution</li> <li>Ability to offer more frequent support</li> </ul>                                 |  |
|---------------|---------------|--|--|---|--|
|               | Effective     | Outcomes   | <ul> <li>Greater ability to control<br/>outcomes</li> <li>Opportunities for direct<br/>feedback &amp; course<br/>correction</li> </ul>                             | <ul> <li>Lower ability to control outcomes</li> <li>Opportunities for more honest, peer sharing</li> <li>Longer feedback loop can lead to longer course correction time</li> </ul>        | <ul> <li>Greater ability to control outcomes</li> <li>Opportunities for more honest peer sharing.</li> <li>Longer feedback loop can lead to longer course correction time</li> </ul>                 |
|               | ıty           | Cost<br>considerations   | <ul> <li>High expert trainer fee</li> <li>Travel expenses (Facilitator &amp; Trainer)</li> <li>Training resource/material costs</li> </ul>                         | <ul> <li>Lower trainer fee</li> <li>Travel expenses (lower owing<br/>to shorter distances)</li> <li>Training resource/material<br/>costs</li> </ul>                                       | <ul> <li>High expert trainer fee (limited to training only) + low support staff fee</li> <li>Travel expenses (lower owing to shorter distances)</li> <li>Training resource/material costs</li> </ul> |
| Feasibility   | Feasibil      | Resource<br>availability   | Hard to find SMEs  | Trainers identified from existing facilitator group   | Limited need for SMEs - easier to find<br>Support staff identified from existing<br>facilitator group  |
|               | Risks         | <ul> <li>Potential for<br/>exhaustion/burn-out</li> <li>SME attrition can disrupt<br/>implementation</li> <li>Slow pace of dissemination<br/>may not be aligned to<br/>AREAi's growth aspirations</li> </ul> | <ul> <li>Potential for<br/>misrepresentation &amp; dilution -<br/>can impact outcomes</li> <li>Lower engagement without<br/>connect back to AREAi</li> </ul>       | Lower engagement without connect<br>back to AREAi   |  |
|               | Opportunities | <ul> <li>Find volunteer trainers to<br/>reduce costs and burden on<br/>SMEs</li> <li>Leverage technology to<br/>reduce support visits</li> </ul>   | <ul> <li>Leverage technology to<br/>standardize training content</li> <li>Build in ad-hoc field visits to<br/>gather feedback and monitor<br/>progress.</li> </ul> | <ul> <li>Leverage technology to standardize training content and create a trust-network with support staff</li> <li>Find volunteer trainers to reduce costs and burden on SMEs</li> </ul> |  |

In making a decision on the best approach, AREAi must consider all of the above variables in the context of their current circumstances, fund availability as well as their aspirations for the near future.

### EXPLORE

- 1. AREAi should consider collecting feedback on the training content, structure and trainer. This
  - a. Serves as a good way for AREAi to get feedback on the performance of the trainers
  - b. Sets the right tone with facilitators and trainers that they are part of the solution
  - c. Can help identify potential gaps in training content that need to be fixed
  - d. Can help identify dilution or misrepresentation of key information at every stage of growth.
- 2. Periodic reflection/feedback focusing on understanding motivation and identifying fatigue/burn-out would be valuable, particularly since
  - a. Candidates on the trainer track are likely to feel fatigued after a few months of repeating the same tasks. Identifying this as early as possible will allow AREAi to



support the trainer and prevent burn-out before it happens. Please see <u>Deliverable 4</u> for assessments.

- 3. It is critical to determine the optimum ratio of trainer to facilitators particularly since they will need to monitor and support their cohort of facilitators on an ongoing basis
  - a. This ratio should be determined based on the number of tasks a trainer is expected to complete every month, accounting for travel time and the maximum time taken to complete each activity in a satisfactory manner.
  - b. Over time, as AREAi understands trainer capacity and capabilities better, this ratio should be revisited .

### **ENHANCE**

It would be worthwhile to consider using technological tools that allow AREAi to control the content and delivery of key pieces of information during each phase of training. These could be in the form of short videos, handouts or an app that allows facilitators to browse through key information at any time.

The following questions must be considered when exploring the use of technology:

- a. What is the specific problem that needs solving (scaling training, offering ongoing support, etc.)?
- b. How has the problem been solved till date? What worked and what didn't?
- c. Will the use of technology allow AREAi to amplify what was working and/or fix what was not working?
- d. Is there a way to use technology in a manner that requires minimal behaviour change? If yes, can that be implemented in a cost-effective manner?
- e. Does the introduction of technology assume a certain skill level (of technology use) on the part of the end user? If so, has AREAi validated that the target audience possesses these skills or is willing to acquire them?
- f. What is the simplest way (e.g. least number of clicks, easy to access, easy to understand, lightweight) in which the content can be created, delivered, or used.
- g. What are some industry best practices that can be adopted to optimize resources and increase chances of success?

# **Takeaways and Recommendations**

- 1. The FastTrack program operates in a unique and sensitive context and therefore, it would be worthwhile to understand how context plays into the Learner experience. This could help surface causality and opportunities to improve learning outcomes.
- 2. Facilitator success is a key determinant of the program sustainability and scalability. Therefore, facilitator training and ongoing development should be a key consideration for AREAi. Deliverable 2 offers some insights into how existing practices can be enhanced to improve facilitator learning outcomes as well as standardize the training process.
- As AREAi prepares to scale the FastTrack program, optimization of resources, time and costs become critical. Streamlining opportunities as well as frameworks for optimization have been provided, based on the general guiding principles of empower (facilitators), standardize and evaluate.



# Part 2: Recommendations for Program Evaluation

Resources, templates, and guidance on strengthening the evidence-base for FastTrack



# **Deliverable 3**

### Introduction

Randomized Controlled Trials (RCTs) can be useful for evaluating the causal impact of a program on a particular set of outcomes, and are regarded as one of the most valued research methodologies for examining the efficacy or effectiveness of interventions. To sufficiently isolate the impact of the intervention on the outcome, RCTs must be thoughtfully designed and conducted and must involve team members with expertise across all relevant practical and methodological aspects of the study.

Deliverable 3 provides a template to conduct a RCT to assess the impacts of the FastTrack program on children's functional literacy and numeracy skills. The deliverable outlines critical steps to conducting an RCT as well as key decisions to be made before beginning the research study.

We align our proposed template map based on the "learner's journey" / theory of change as specified in the first deliverable. This theory of change allows us to understand the different elements of the program and the target outcomes and can be used as a "road map" to develop the RCT and assessment guides.

### Developing a RCT Template for FastTrack

### **Key research questions**

The goals of the RCT would be to be able to address the following questions:

- 1. What is the impact of the full FastTrack program on children's basic literacy and numeracy skills?
- 2. What is the added value of the Mavis Pen on basic literacy and numeracy skills?
- 3. Are the impacts of FastTrack equitable for boys versus girls, children with and without disabilities, and children of different ages?
- 4. Potential exploratory questions:
  - a. What are the impacts of FastTrack (with and without Mavis Pen) on other child outcomes, including social-emotional skills, well-being, educational aspirations, and later school enrollment and progression?
  - b. How does facilitator knowledge and motivation moderate the impacts of the FastTrack program on child outcomes? (i.e., if facilitators are more knowledgeable and motivated, are program impacts larger?).



### Steps to conducting RCT / timeline (12-15 months)

- 1. Recruit children within camps, obtain consent of children and parents required (~1-2 months)
- 2. Conduct baseline assessments (~2 months)
- 3. Clean baseline database; randomize children to each of the three conditions using a computer program or a lottery using sealed envelopes with all children's names (~1-2 weeks)
- 4. Implement program (6 months)
- 5. Conduct endline assessments (~2 months)
- 6. Analyze data (~2 months)
- 7. AREAi may consider including midline assessment and a follow-up assessment. A midline assessment would allow AREAi to capture effects of the program with a shorter duration; and follow-up will allow AREAi to examine fade-out effects (i.e., to see if any impacts of the program are maintained over time. This may be resource intensive if participants leave IDP camps and need to be tracked throughout the county.)

### **Pre-registration**

Pre-registering a trial is increasingly common in the social sciences and a requirement for publication at many journals. Before the RCT is deployed, we recommend that the study be pre-registered to increase scientific transparency and potential publishability of the results. (Two common registries are the American Economic Association (AEA) Registry<sup>7</sup> and the Research in Educational Effectiveness Studies)<sup>8</sup>.

Pre-registration will entail specifying in detail the participant sample, power calculations, sample size, randomization strategy, analytic plan, and primary and secondary outcomes to be examined. Pre-registration should happen before participant enrollment begins.

### **Ethical approval**

If AREAi is interested in publishing their results, it is imperative that the randomized trial be approved through a formal, ethical review process before beginning. Many countries have local government-run ethical review boards, and every university will have one as well. When considering potential partners for the RCT, AREAi should consider the various requirements for ethical review board approval both in Nigeria and with any partner institutions.

Prior to participating in the RCT, all participants will need to complete an informed consent procedure. Parents will need to consent to participate in the study, and children will need to provide assent (as minors, they will not be able to consent to participate). AREAi will need to provide participants with information about what participating in the study entails (description of procedures), the potential benefits and risks of participating in the study, right to withdraw, and procedures in place for maintaining participant confidentiality and anonymity. AREAi will need to determine what types of data safety and monitoring protocols are required for their RCT. AREAi

<sup>&</sup>lt;sup>7</sup> https://www.socialscienceregistry.org/

<sup>8</sup> https://sreereg.icpsr.umich.edu/sreereg/



will also need to establish a data transportation and storage protocol (i.e., if paper records are collected in the field, how will records be transported to a secure location; how will paper and/or electronic data be stored, are electronic records store securely [i.e. encrypted server, 2FA], how long will data be stored for, who will have access to records).

### **EXPLORE**

As part of conducting an ethical RCT, it would be valuable for AREAi to familiarize their team with research ethics. This can be done by completing a training module, such as the CITI training (https://about.citiprogram.org/).

### Sample

Study participants will include children (ages 5-14) in one of the partner camps who enroll to participate in the FastTrack program. It will be important for AREAi to define in advance inclusion and exclusion criteria for children to participate in both the program and the study. We would recommend carefully considering generalizability of the results to children the program targets (e.g., criteria that are too narrow may create challenges in identifying enough participants, whereas criteria that are too broad may create challenges in detecting true effects of the intervention for the target population).

It will be critical to put in place a tracking system to ensure participants are able to be followed and data linked across the start and end of the study. This may be challenging if the sample is highly mobile, and thus collecting the right information to be able to find participants for the endline is critical. Importantly, the tracking system will entail personally identifying information, and will need to be kept in a secure location to comply with data privacy standards.

### **Treatment Conditions**

Once children are recruited and selected, they would be randomized to one of the following three conditions:

- (1) Full FastTrack program (targeted instruction plus Mavis Pen),
- (2) FastTrack program with targeted instruction only,
- (3) Wait-list control.

### **EXPLORE**

AREAi should decide on the importance of testing the separate impacts of the Mavis Pen. This will increase the sample size needed by one-third and will increase costs and scope of the RCT.



### **Statistical Power**

In order to have enough statistical power to be able to detect impacts of the FastTrack program, we recommend randomizing children within participating camps. This can be done as a wait-list control, where children who serve in the control group can receive the program after the evaluation is completed.

We recommend at least 900 children participate in the program (300 in each treatment arm). Assuming 80% power, and baseline data collected on children included in the analysis (R-squared = 0.2), this would lead to a minimum detectable effect size of 0.17 for each treatment contrast (i.e., FastTrack versus control, FastTrack without Mavis Pen versus FastTrack).

We list below several iterations of the power calculations to provide a summary of how the minimum detectable effect size changes as the sample size increases:

- 600 total (200 per arm): MDES = 0.25
- 900 total (300 per treatment arm): MDES = 0.17
- 1200 total (400 per arm): MDES = 0.15
- 1500 total (500 per treatment arm): MDES = 0.12
- 3000 total (1000 per arm): MDES = 0.09

### **Defining Outcomes**

Given the potential wide-reaching effects of the FastTrack program, we propose dividing outcomes into primary outcomes (considered a confirmatory test of the program's impacts) and secondary outcomes (considered an exploratory test of the program's outcomes). This division will be important for pre-registration as well.

### **Primary outcomes**

- 1. Functional literacy skills
- 2. Functional numeracy skills

Secondary outcomes (see Deliverable 4)

### **Collecting Data**

Baseline data (including learning outcomes and demographic characteristics of the children and other covariates) should be collected to evaluate the degree of balance across the treatment groups to ensure the integrity of the randomized design. Enumerators will need training in the assessment protocol and in working with children specifically. Ideally, outcome data would be collected by an individual blinded to the children's treatment group allocation, to reduce the risk of subjective interpretation by the enumerator.

We recommend collecting the selected primary and secondary outcomes at baseline in addition to endline to further increase statistical power and to allow for the detection of subgroup effects.



### **EXPLORE**

- 1. *Implementation and fidelity measures*: Consider collecting indicators of implementation (also known as dosage) through attendance records for children at the sessions each day, and of fidelity to implementation through logs of the facilitators.
- 2. **Contamination**: Because treatment status will be randomized within camps, consider measuring "contamination" (i.e., if control group children end up attending the FastTrack program). The level of contamination will reduce the detected program impacts.

### **ENHANCE**

We recommend AREAi consider finding a research partner to help guide the study, including key decisions regarding the research questions, sample selection, data collection, and data analysis.



### **Deliverable 4**

### Introduction

Administering appropriate assessments is a key component of tracking the impact of the FastTrack program on learners. In Deliverable 3, we presented a template for an RCT to measure the impact of FastTrack. The RCT involves measuring primary and secondary outcomes before and at the end of the FastTrack program (i.e., baseline and endline), as well as collecting additional information (i.e., social and demographic variables) that may help to understand better how, why, and for whom FastTrack works.

Within the context of the RCT template (Deliverable 3), Deliverable 4 provides recommendations for assessments that measure the impact of FastTrack on primary outcomes (e.g., foundational literacy and numeracy skills). Beyond FastTrack's primary outcomes (literacy, numeracy), additional secondary outcomes may be directly impacted by FastTrack, or moderate the impacts of FastTrack on primary outcomes. Secondary outcomes include children's socio-emotional development, well-being, school enrollment and progression, and parents' aspirations for their children.

We also suggest approaches to identifying subgroups of children and recommend assessments/screeners that will allow for identifying children in particular relevant sub-groups (for example, gender, age, and children with disabilities). These subgroups may differentially benefit from FastTrack, and conducting sub-group analyses will be relevant to establishing whether program impacts are equitable across sub-groups.

Assessments are also relevant for monitoring Facilitator/Trainer knowledge and ensuring that FastTrack is implemented according to program standards by the Facilitators. In Deliverable 2, we suggested assessing Facilitator knowledge at regular intervals and measuring factors that may affect Facilitator performance, such as motivation and burnout. Within Facilitator Training (Deliverable 2), Deliverable provides recommendations for assessing Facilitator knowledge, motivation, and burnout.

### Assessments

### **Primary Outcomes**

The primary outcomes of FastTrack are children's literacy and numeracy skills. Below we provide recommendations for appropriate tests to measure literacy and numeracy skills, in addition to the ASER assessments used to group children in the TaRL approach already implemented in FastTrack. Importantly, we add comprehensive measures of reading and reading-related skills (e.g., phonological awareness, oral language comprehension, vocabulary), and include language and reading measures in Hausa. Given that beneficiaries of the FastTrack program are bilingual children, it is relevant to measure their language skills in their native/first language (Hausa). Bilingual children's language skills may be higher in one language relative to



their other. Thus, a comprehensive measure of language and reading abilities of bilingual children should include measures in both languages. Moreover, language and reading skills in the first language transfer to the second language, and the impacts of FastTrack in the child's first language are relevant to the second.

### 1. Literacy skills

- a. ASER assessment groupings plus a broader test of basic literacy skills (e.g., phonological awareness)
- b. Early Grade Reading Assessment (EGRA)<sup>9</sup>: EGRA is an oral student assessment designed to measure the most basic foundation skills for literacy acquisition in the early grades: phonological awareness (awareness of and ability to manipulate the sound units of language), recognizing letters of the alphabet, reading simple words, understanding sentences and paragraphs, and listening with comprehension. Ed Data II developed the EGRA methodology and has applied it in 11 countries and 19 languages. It has been adopted and used by other implementing partners in more than 30 other countries and more than 60 other languages.
- c. <u>EGRA Hausa version</u><sup>10</sup>: The Hausa language version of the EGRA will capture children's first language and literacy abilities, which are both important potential outcomes of the intervention, as well as predictors of English language and literacy. Language skills in a child's first language transfer to the child's second language; cross-language transfer<sup>11</sup>.
- d. Oral language measures -- EGRA has an oral language comprehension task, and a phonological awareness task, however, there is no measure of vocabulary. We recommend including this in both L1 and L2 (English). There are a number of good measures that are quick and easy to administer, such as the WIAT receptive vocabulary picture-based task<sup>12</sup>, or Woodcock-Johnson IV synonym and antonym generation tasks<sup>13</sup>.
- e. IDELA early literacy assessment<sup>14</sup>

### 2. Numeracy skills

a. ASER assessment groupings plus a broader test of basic numeracy skills (e.g., quantity discrimination)

<sup>&</sup>lt;sup>9</sup> RTI International, 2012

<sup>&</sup>lt;sup>10</sup> RTI Interntional, 2014

<sup>&</sup>lt;sup>11</sup> Cisero, C. A., & Royer, J. M. (1995). The Development and Cross-Language Transfer of Phonological Awareness. *Contemporary Educational Psychology*, *20*(3), 275-303. https://doi.org/10.1006/ceps.1995.1018

<sup>&</sup>lt;sup>12</sup> Wechsler, D. (1992). Wechsler Individual Achievement Test

<sup>&</sup>lt;sup>13</sup> Woodcock, R. W., McGrew, K. S., & Mather, N. (2001). Woodcock-Johnson III NU Complete. *Rolling Meadows, IL: Riverside Publishing*.

<sup>&</sup>lt;sup>14</sup> Pisani, L., Borisova, I., & Dowd, A. J. (2015). *International development and early learning assessment technical working paper*. Save the Children.



- b. <u>Early Grade Math Assessment (EGMA)</u><sup>15</sup>. The EGMA is an assessment of early mathematics learning consisting of six subtests measuring number identification, reasoning about magnitude, recognition of number patterns, addition and subtraction, and word problems. The EGMA is an oral assessment administered individually to primary school students. The EGMA was developed by RTI International and has been used in over 14 countries.
- c. IDELA early numeracy assessment<sup>16</sup>

### **Secondary Outcomes**

There are multiple other potential benefits of FastTrack, beyond foundational literacy and numeracy skills. We recommend measuring additional outcomes, such as children's social-emotional skills, well-being, and longer term school participation.

### **EXPLORE**

As part of finalizing the design of the RCT, there are decisions to be made regarding which secondary outcomes will be measured, and whether both child and parent data will be collected. These decisions will depend on the funds available for the RCT, the amount of testing time available with each child (we recommend each child testing session be a maximum of 60 minutes), whether parents will be included in the RCT, and ultimately, which of the secondary outcomes have strategic value for AREAi.

### Child

Participating in FastTrack may improve children's well-being, social and emotional skills, and school participation. While these are not the direct targets of FastTrack, we recommend measuring these outcomes, if possible. There is strategic value for AREAi in establishing (through an RCT) that FastTrack has additional benefits. For example, if FastTrack is shown to have multiple benefits for children, this may increase stakeholder buy-in. Additionally, FastTrack may have different impacts on children who differ in socio-emotional skills and well-being. The measures outlined below also capture multiple aspects of a child's environment and child characteristics. This information may be useful to determine if FastTrack has equitable impacts across different sub-groups of children (i.e., children who experienced greater adversity, children from more socioeconomically disadvantaged backgrounds).

### 3. Social-emotional skills

a. Social-emotional skills. International Social and Emotional Learning Assessment (ISELA)<sup>17</sup>. ISELA measures the development of social and emotional learning

<sup>&</sup>lt;sup>15</sup> EdData, I. I. (2009). Early Grade Mathematics Assessment (EGMA): A Conceptual Framework Based on Mathematics Skills Development in Children.

<sup>&</sup>lt;sup>16</sup> Pisani, L., Borisova, I., & Dowd, A. J. (2015). *International development and early learning assessment technical working paper*. Save the Children.

<sup>&</sup>lt;sup>17</sup> D'Sa, N., & Krupar, A. (2021). Developing and Validating the International Social and Emotional Learning Assessment: Evidence from a Pilot Test with Syrian Refugee Children in Iraq.



- skills in children between 6-12 years, and whether this development differs by key equity factors: age, gender, socioeconomic status, exposure to adversity, and interpersonal threats in the environment around the child. The tool is adaptable for different cultural and social contexts.
- b. <u>Strengths and Difficulties Questionnaire</u> (SDQ)<sup>18</sup>: The SDQ assesses well-being (emotional-behavioural regulation and prosocial behavior) in children 3-17 years. It consists of 25 items in five sub-scales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behavior. The SDQ has been extensively evaluated and applied worldwide (Woerner et al., 2004). Children ages 11 and older complete a self-report, for children 10 and under, parents complete a report.
- c. The Holistic Assessment of Learning and Development Outcomes (HALDO) for situational analysis in conflict and crisis settings<sup>19</sup>. HALDO measures the literacy, numeracy, and social and emotional learning of children ages 4 to 12 years affected by conflict and crisis.

### 4. Well-being

a. International Survey on Children's Well-Being (ISCWeB)<sup>20</sup>. This measure targets multiple factors relating to children's well-being, satisfaction with various aspects of their life, living conditions, material possessions, time use and experiences of daily life. The international survey was conducted with children ages 8, 10, and 12 years in multiple countries (including Ethiopia and S. Africa),and is appropriate for the age range and location of the FastTrack beneficiaries. ISCWeB includes measures of living situation, home and family relationships, money and economic circumstances, friends and other relationships, local area, school, time use, self overall subjective well-being, and children's rights. The survey incorporated (1) measures of overall cognitive subjective well-being from a short modified version of The Student Life Satisfaction Scale<sup>21</sup>, (2) the seven-item Personal Well-being Index - School Children<sup>22</sup>, (3) a modified Brief Multidimensional Student Life Satisfaction Scale<sup>23</sup>, (4) a set of six items on positive affect which were influenced by Russell's Core Affect scale<sup>24</sup>, and (5) a set of six items designed to represent various aspects of psychological well-being based on a framework proposed by

<sup>&</sup>lt;sup>18</sup> Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(11), 1337-1345.

Jones, S. M., Bailey, R., Temko, S., Donaher, M., Raisch, N., & Ramirez, T. (2020). SEL and PSS measurement and assessment tools in education in emergencies: Identifying, analyzing, and mapping tools to global guidance documents. *Inter-Agency Network for Education in Emergencies (INEE)*.
 Casas, F., Rees, G. Measures of Children's Subjective Well-Being: Analysis of the Potential for Cross-National Comparisons. *Child Ind Res 8*, 49–69 (2015). https://doi.org/10.1007/s12187-014-9293-z Huebner, E. S., & Gilman, R. (2002). An introduction to the multidimensional students' life satisfaction scale. *Social Indicators Research*, 60(1), 115-122.

<sup>&</sup>lt;sup>22</sup> Cummins, R. A., & Lau, A. (2005). Personal wellbeing index–school children. *Melbourne: School of Psychology, Deakin University*.

<sup>&</sup>lt;sup>23</sup> Huebner, E. S., Seligson, J. L., Valois, R. F., & Suldo, S. M. (2006). A review of the brief multidimensional students' life satisfaction scale. *Social Indicators Research*, 79(3), 477-484.

<sup>&</sup>lt;sup>24</sup> Russell, J. A., & Barrett, L. F. (1999). Core affect, prototypical emotional episodes, and other things called emotion: dissecting the elephant. *Journal of personality and social psychology*, *76*(5), 805.



Ryff<sup>25</sup>. See this <u>report</u><sup>26</sup> and this <u>review of measurement tools for child wellbeing</u><sup>27</sup> for relevant discussion.

### 5. Schooling

- a. Enrollment and school progression. A relevant secondary outcome to consider is whether the child enrolls in school after completing the FastTrack program and the child's longer term progression in school (e.g. did the child complete the grade, grade repetition, primary school completion, secondary school enrollment).
- b. Educational aspirations and expectations<sup>28</sup>: Two items including: "How far would you like to go in school?", "Realistically, how far do you expect to go in school?"

### **Parent**

We recommend including measures of parents' educational aspirations and expectations for their children, as well as parental involvement and educational engagement. Parents' educational aspirations/expectations may increase if children's learning outcomes increase through FastTrack.

- 6. Educational aspirations and expectations.
  - a. Parental questionnaire, two items include "How far would you like your child to go in school?", "Realistically, how far do you expect your child to go in school?"
- 7. Parental involvement and educational engagement.
  - a. Parental questionnaire (e.g. adapted from <u>UNICEF MICS</u><sup>29</sup> and <u>Young Lives</u> <u>Panel Study</u>), example items include "On a scale 1 to 4 (1=never, 2=almost never, 3= sometimes, 4=almost always/always), answer how often you:" "Help your child with homework or schoolwork.", "Ask your child if s/he did his/her homework or schoolwork". See Appendix B for example questions.

### **Facilitator**

We recommend incorporating measures of facilitator program knowledge, program implementation, attendance, and facilitator motivation and burnout. Such assessments are also valuable as part of ongoing program monitoring beyond the scope of the RCT and are discussed in more detail below.

<sup>&</sup>lt;sup>25</sup> Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of personality and social psychology*, *57*(6), 1069.

<sup>&</sup>lt;sup>26</sup> Rees, G. (2017). *Children's Views on Their Lives and Well-being*. New Yoek: Springer.

<sup>&</sup>lt;sup>27</sup> Cho, E. Y. N., & Yu, F. Y. (2020). A review of measurement tools for child wellbeing. *Children and Youth Services Review*, *119*, 105576.

<sup>&</sup>lt;sup>28</sup> Dercon, S., & Krishnan, P. (2009). Poverty and the psychosocial competencies of children: evidence from the young lives sample in four developing countries. *Children Youth and Environments*, *19*(2), 138-163.

<sup>&</sup>lt;sup>29</sup> Gottlieb, C. A., Maenner, M. J., Cappa, C., & Durkin, M. S. (2009). Child disability screening, nutrition, and early learning in 18 countries with low and middle incomes: data from the third round of UNICEF's Multiple Indicator Cluster Survey (2005–06). *The Lancet*, *374*(9704), 1831-1839.



### **ENHANCE**

Although this is beyond the scope of the RCT, AREAi may consider tracking longer-term outcomes on children in the future. For example, once the RCT is underway, they may seek additional funding to include a longitudinal module to understand if the program has lasting impacts on children. It may be relevant to explore potential fade-out effects, whereby initial impacts diminish over time. AREAi may consider this in their mid- and long-term strategic planning.

### **Relevant Covariates and Sub-Group Identification**

As part of the RCT design, we recommend collecting additional data to help explain variability in children's outcomes in the FastTrack program. These additional covariates would capture additional child- and family-level variance. The constructs may be important predictors of gains in literacy and numeracy and may mediate or moderate the link between FastTrack and children's outcomes.

These variables can also identify different sub-groups of children, such as socially and economically more disadvantaged/advantaged and children from minority ethnic and linguistic groups. Identifying these sub-groups will allow AREAi to determine if the impacts of FastTrack are equitable between these sub-groups. We recommend that AREAi consider age and gender sub-groups when measuring equitable impacts across subgroups.

### **Child**

- 8. Nonverbal Intelligence
  - a. Kaufman Brief Intelligence Test 2 (KBIT-2)<sup>30</sup>: KBIT-2 measures non-verbal intelligence with the Matrices subtest. The child is asked to identify the element that is missing in the pattern. Non-verbal scales are scored, standardized for age, and then can be transformed into an IQ score. This assessment will explain some variance in academic outcomes and help identify children with intellectual disabilities.
- 9. Socioeconomic status. These measures can be self-reported by the child, or a parent could complete a more extensive questionnaire. These measures can be used to identify socially and economically more vulnerable children and determine if these sub-groups benefit from FastTrack similarly to other children.
  - a. Parental literacy. Children complete an interview where they are asked about their parents' literacy. Alternatively, if parent is completing an interview/questionnaire, parental literacy can be assessed through a sentence reading question.
  - b. Household assets. The Poverty Probability Index (PPI)<sup>31</sup>, which includes a version for Nigeria, would be completed by parents. Alternatively, a basic household

<sup>&</sup>lt;sup>30</sup> Kaufman, A. S. (1990). *Kaufman brief intelligence test: KBIT*. AGS, American Guidance Service Circle Pines, MN.

<sup>&</sup>lt;sup>31</sup> Burke, L., Ramanathan, S., & Rebolledo Dellepiane, M. A. (2018). A Practical Tool to Create Economic Opportunity for Low-Income Communities.



asset questionnaire is part of EGRA measures and can be administered with children directly (SES is the sum of the items a child has at home: radio, telephone, electricity, television, refrigerator, interior toilet, bicycle, motorcycle, and car/truck/mill/other equivalent.) A pre-migration and current household asset questionnaire can be administered.

c. <u>MacArthur Scale of Subjective Social Status</u><sup>32, 33</sup>. A single-item measure that assesses a person's perceived rank relative to others in their group; youth and adult versions are available.

### 10. Home language environment

a. <u>Language Environment Questionnaire (ALEQ-4)</u><sup>34</sup>: Parent questionnaire that yields information on children's language development history, parent education and fluency in English and a mother tongue, home and school language use, and literacy activities. This questionnaire can establish child's home language background.

### 11. Program attendance

### **ENHANCE**

### Identifying Children with Disabilities

Identifying children with disabilities is relevant to examining whether FastTrack impacts are equitable across diverse children.

We recommend that AREAi consider the types of disabilities that are particularly important to identify in order to determine appropriate identification tools that will effectively identify specific disabilities and are appropriate for the Nigerian, and IDP camp contexts.

First, deciding which disabilities to screen for will be a critical decision point (e.g., hearing and

First, deciding which disabilities to screen for will be a critical decision point (e.g., hearing and vision, autism spectrum disorder).

Identifying appropriate and context-relevant measures is challenging and will require substantial research and potential piloting.

We recommend using a screening tool, rather than an assessment. Screening tools do not definitively identify a child with a disability, but rather identify a child who may be at-risk for a disability and who will need further assessment to be diagnosed. Screening tools are typically easier and faster to implement, rather than full assessments. An example screener is WHO "10 Questions", which focuses on cognitive skills, motor skills, hearing, epilepsy, and vision problems. However, this screener may not be appropriate for intellectual disabilities or autism in

<sup>&</sup>lt;sup>32</sup> Cundiff, J. M., Smith, T. W., Uchino, B. N., & Berg, C. A. (2013). Subjective social status: construct validity and associations with psychosocial vulnerability and self-rated health. *International journal of behavioral medicine*, *20*(1), 148-158.

<sup>&</sup>lt;sup>33</sup> Amir, D., Valeggia, C., Srinivasan, M., Sugiyama, L. S., & Dunham, Y. (2019). Measuring subjective social status in children of diverse societies. *Plos one*, *14*(12), e0226550.

<sup>&</sup>lt;sup>34</sup> Paradis, J. (2011). Individual differences in child English second language acquisition: Comparing child-internal and child-external factors. *Linguistic approaches to bilingualism*, *1*(3), 213-237.



sub-Saharan African context<sup>35</sup>, and is appropriate for use for kids ages 2-9. Important caveat to remember is that screening tools typically target young children, rather than the age range of FastTrack beneficiaries. The WHO Disability Assessment Schedule 2 (WHODAS 2.0) provides 12-item screener that has been used with children over the age of 12, but is not generally recommended for individuals under age 18<sup>36</sup>.

- There are some challenges and ethical considerations to consider if measuring children's disabilities. There are ethical considerations if children do screen for having a disability. This will require providing services to children after identification, so AREAi will need to have services or referral to services in place before conducting each screener.
- 2. Additionally, AREAi may want to explore whether there are other services or agencies in the IDP setting that may be conducting screening and providing services (e.g. vision testing as part of medical), and if there are opportunities for partnership for identifying children with disabilities and providing relevant care.

### **Teacher/Facilitator Measures**

We provide recommendations for assessments to administer to FastTrack program facilitators (and potentially trainers) as part of program monitoring. These measures may also be integrated into the RCT (see Deliverable 3).

Teacher/Facilitator measures may focus on several components, including:

### 1. Facilitator knowledge

a. Facilitators' knowledge of FastTrack can diminish over time, and assessing knowledge can help to identify when facilitators may need additional training, and the quality of the FastTrack program implementation. This assessment may consist of questionnaire items to measure facilitators knowledge of the FastTrack program. The questions should be specific to key knowledge areas for implementing FastTrack. For example (referring to the TaRL program), "Which activity should only be done by students in the "word and paragraph" level group?", "During the ASER test, the student was able to read the two paragraphs in a fluid way without error as well as the story proposed by the facilitator. What is the level of the student?"

### 2. Burnout

a. Maslach Burnout Inventory-Educators Survey (MBI-ES)<sup>37</sup>. Facilitators, particularly those working in challenging contexts, may experience burnout, and diminished motivation, contributing to poorer program fidelity. As part of facilitator monitoring,

<sup>&</sup>lt;sup>35</sup> Nwokolo, E.U., Langdon, P.E. & Murphy, G.H. Screening for Intellectual Disabilities and/or Autism Amongst Older Children and Young Adults: a Systematic Review of Tools for Use in Africa. Rev J Autism Dev Disord (2022). https://doi.org/10.1007/s40489-022-00342-6

 <sup>&</sup>lt;sup>36</sup> Üstün, T. B., Kostanjsek, N., Chatterji, S., & Rehm, J. (Eds.). (2010). *Measuring health and disability: Manual for WHO disability assessment schedule WHODAS 2.0*. World Health Organization.
 <sup>37</sup> Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of applied psychology*, *71*(4), 630.



AREAi can consider assessments of burnout and motivation. Example burnout questions include asking facilitators whether they agree with statements "I feel emotionally drained from my work", "I feel used up at the end of the workday", "I feel fatigued when I get up in the morning and have to face another day on the job." This tool has previously been used in sub-Saharan Africa, in Ghana<sup>38</sup>.

### 3. Motivation

a. Motivation is linked with burnout and a poorer classroom environment<sup>39</sup>. Motivation can be measured by asking how strongly facilitators agree to statements such as "I am motivated to help children learn to read and write," "I am motivated to help children develop well emotionally," and "I am motivated to help children develop well socially."

### **ENHANCE**

Additional relevant measures may include facilitators' motivation, attitudes, behaviors, and perceptions on their background, nature and work conditions, depression and anxiety, external control, and job satisfaction<sup>40</sup>.

We recommend that AREAi consider incorporating additional measures (if possible within the scope of the RCT, and/or as part of program monitoring) to better understand the characteristics of facilitators implementing FastTrack; these variables may impact the quality of program implementation, and may moderate the impacts of FastTrack on learners.

<sup>&</sup>lt;sup>38</sup> Lee, S. S., & Wolf, S. (2019). Measuring and predicting burnout among early childhood educators in Ghana. *Teaching and Teacher Education*.

<sup>&</sup>lt;sup>39</sup> Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of applied psychology*, *71*(4), 630.

<sup>&</sup>lt;sup>40</sup> IICBA, U. (2017). Teacher support and motivation framework for Africa: Emerging patterns. *Addis Ababa: IICBA*.



# **Takeaways and Recommendations**

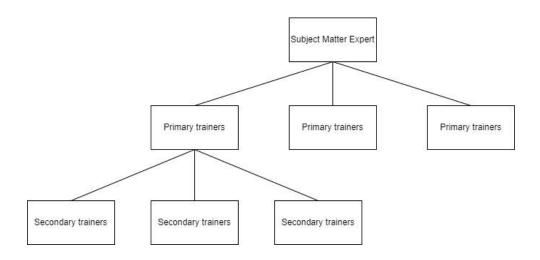
- 1. Randomized controlled trials are useful for determining the causal impacts of a program on a narrow, pre-defined set of outcomes.
- 2. The key research questions must first be determined to inform the study's design and sample selection.
- 3. Ethical issues related to the program receipt and data storage must be examined carefully and addressed before the study begins.
- 4. Measurement is an important aspect of tracking the impact of any program on learners and ensuring that the FastTrack program is implemented according to standards by Facilitators. Deliverable 4 suggests assessments for measuring learner outcomes, including both primary targets of the FastTrack program (literacy, numeracy), and relevant secondary outcomes (e.g. socio-emotional skills, well-being, educational participation, parental aspirations and involvement). Deliverable 4 also suggests assessments for program Facilitators. We recommend AREAi consider the importance of which components of their should be tested (or if the full program as currently delivered should be the focus), define a small set of secondary outcomes the program impacts (in addition to literacy and numeracy skills), and align the study design and assessments with both, including considering the limits of testing (i.e. children may fatigue and provide less reliable data if testing session is too long) and increased data collection costs associated with a larger assessment battery. Additionally, AREAi can explore the potential for future assessment and tracking of program beneficiaries to allow for the possibility of establishing longer term FastTrack impacts.
- Lastly, AREAi should carefully consider how children with disabilities may be identified in their program and whether FastTrack impacts are equitable across different subgroups of children.



# **APPENDIX A**

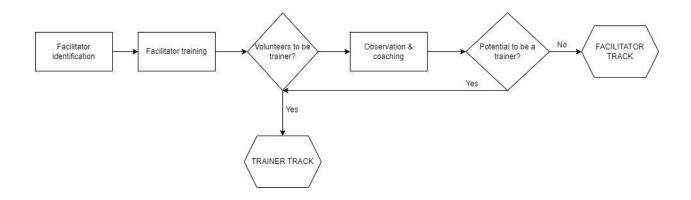
### A Cascade model for FastTrack

A Cascade training model is a teacher professional development approach, typically used to disseminate training in a short span of time. It is a top-down model where information flows from expert trainers to Primary trainers to Secondary trainers, with each layer (or some part of it) providing training to the next.



### How does it apply to FastTrack?

Key Idea 1: There are two pathways a facilitator can take - a facilitator pathway (ending in 6 months) and a trainer pathway (continues beyond 6 months).



Key Idea 2: Facilitators can self-select to be a trainer at the time of the first facilitator training. Such facilitators will need to be observed and coached over 6 months for trainer-specific skills.



Key Idea 3: Areai can identify additional trainers from the pool of facilitators through their class observations and monthly review sessions. A clear checklist/rubric for selection needs to be developed.

Key Idea 4: Identified primary trainers will play two roles

- a. training their assigned cohort of facilitators (secondary facilitators) and
- b. Identifying and coaching potential trainers for the next level.

### Risks and constraints

- 1. *Training quality dilution at scale*: As the number of trainers needed for training increases, so does the risk of dilution in the quality of training. To mitigate this risk, an intervening training could be conducted at every 3rd or 4th phase by AREAi subject matter experts, effectively resetting the training dissemination counter back to Phase 1.
- 2. Misrepresentation or modification of key pedagogical elements: The key to the success of the Cascade model is consistent delivery of all key information, without modification, at every phase. However, every trainer is likely to attempt to integrate their distinct style and beliefs into their training, which in the long term could lead to changes in key pedagogical elements that are integral to the FastTrack program.



# **APPENDIX B**

### **Example Parental Engagement Questionnaire**

|      | Age Relevance: 5-9 Years  | Age Relevance: 10-17 Years  | Read answer choices except refuse to answer and don't know.  |
|------|---|---|--|
|      | In the past 3 days, did you or any household member over 15 years of age engage in any of the following activities with [CHILD]?  | In the past 3 days, did you or any household member over 15 years of age engage in any of the following activities with [CHILD]?  |  |
| PE1a | Read books to or looked at picture books with [CHILD]?  | Worked with [CHILD] on a project like building, making, or fixing something (including cooking)?  | 1    Yes 2    No 88    RA<br>99    DK  |
| PE1b | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | <ol> <li>   Respondent/Caregiver</li> <li>   Mother</li> <li>   Father</li> <li>   Another adult relative</li> <li>   Other non-relative</li> <li>   Refused to answer</li> <li>   Don't know</li> </ol> |
| PE2a | Told stories to [CHILD]?  | Played sports, active games, or exercised with [CHILD]?   | 1    Yes 2    No 88    RA<br>99    DK  |
| PE2b | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | <ol> <li>   Respondent/Caregiver</li> <li>   Mother</li> <li>   Father</li> <li>   Another adult relative</li> <li>   Other non-relative</li> <li>   Refused to answer</li> </ol>                        |



|      |   |   | 99.    Don't know  |
|------|---|---|--|
| PE3a | Sang songs to or with [CHILD], including lullabies?   | Discussed with [CHILD] how to manage time?  | 1    Yes 2    No 88    RA<br>99    DK  |
| PE3b | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | 1.    Respondent/Caregiver 2.    Mother 3.    Father 4.    Another adult relative 5.    Other non-relative 88.    Refused to answer 99.    Don't know  |
| PE4a | Taken [CHILD] outside the home? For example, to the market, to events, visit relatives?   | Talked with [CHILD] about the family/community's history/heritage?  | 1    Yes 2    No 88    RA<br>99    DK  |
| PE4b | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | 1.    Respondent/Caregiver 2.    Mother 3.    Father 4.    Another adult relative 5.    Other non-relative 88.    Refused to answer 99.    Don't know  |
| PE5a | Played with [CHILD]?  | Discussed plans for future education/education or career aspirations with [CHILD]?  | 1    Yes 2    No 88    RA<br>99    DK  |
| PE5b | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | <ol> <li>   Respondent/Caregiver</li> <li>   Mother</li> <li>   Father</li> <li>   Another adult relative</li> <li>   Other non-relative</li> <li>   Refused to answer</li> <li>   Don't know</li> </ol> |



| PE6a | Named, counted, or drew things to or with [CHILD]?  | Encouraged [CHILD] to listen to or watch remote teaching?   | 1    Yes 2    No 88    RA<br>99    DK  |
|------|---|---|--|
| PE6b | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | If yes: Who engages in this activity with [CHILD]? Is it the mother, the child's father or another adult member of the household including the caretaker)? Mark all that apply. | <ol> <li>   Respondent/Caregiver</li> <li>   Mother</li> <li>   Father</li> <li>   Another adult relative</li> <li>   Other non-relative</li> <li>   Refused to answer</li> <li>   Don't know</li> </ol> |
| PE7  | Excluding school text books and holy books, how many children's books or picture books do you have for [CHILD]?   | Excluding school text books and holy books, how many books do you have for [CHILD]?   | _  88    RA 99    NR   |
| PE8  | In the past 4 weeks (30 days), how often have you or has another adult in the household helped [CHILD] with (his/her) homework?   | In the past 4 weeks (30 days), how often have you or has another adult in the household helped [CHILD] with (his/her) homework?   | 1.    Not at all 2.    Rarely 3.    Occasionally 4.    Regularly 88.    Refused to answer 99.    Don't Know  |
| PE9  | In the last month or the last month with regular school [if [CHILD]'s school had vacations in the preceding month], how often have you asked [CHILD] what he/she did at school? | In the last month or the last month with regular school [if [CHILD]'s school had vacations in the preceding month], how often have you asked [CHILD] what he/she did at school? | 1.    Not at all 2.    Rarely 3.    Occasionally 4.    Regularly 88.    Refused to answer 99.    Don't Know  |