

Project: LEGO Play Measurement Research Study - Kenya
Period of Performance: on/about September 20, 2021 - March 31, 2022

SCOPE OF WORK
Kenya Adapt and Test Phases Data Collection

This Request for Proposals (RFP) is organized into six sections:

1. Background
2. Overview and key assumptions
3. Assessments and sample design
4. Statement of Work with Tasks and Deliverables
5. Staffing
6. Anticipated timeline of activities

Section 1: Background

RTI is an independent international organization dedicated to conducting innovative, multi-disciplinary research that improves the human condition. With a worldwide staff of more than 4,000 people, RTI offers innovative research and development and a full spectrum of multi-disciplinary services. Universities in North Carolina founded RTI in 1958 as a centerpiece of the Research Triangle Park.

RTI International has received funding from The LEGO Foundation to develop a suite of tools that measure the *activities, processes, and interactions* through which playful learning takes place and the *environments* and *activities* that support deeper learning through play. The toolkit will include assessment packages across four age groups including:

- A. 0-2 Years: Parent-child observations and Parent survey
- B. 3-5 Years: Teacher-child observation, Parent-child observation, Teacher Survey, Parent Survey
- C. 6-8 Years: Teacher-child observation, Teacher survey, Parent survey, Child survey
- D. 9-12 Years: Teacher-child observation, Teacher survey, Parent survey, Child survey

To assess the psychometric properties, the primary tools for two age groups (6-8 years and 9-12 years, equivalent to Grade 2 and Grade 5) will be pilot tested in two phases Kenya. The Adapt Phase will involve cognitive interviewing as well as small pilot in approximately 50 classrooms. The Test Phase will be a larger pilot of the adapted instruments in approximately 200 classrooms. This scope of work is for both phases of data collection.

The anticipated timing for the Adapt Phase is October 2021 and the Test Phase is February 2022. The dates may change and will ultimately be determined in accordance with the ongoing public health situation in Kenya, and in coordination with the offeror.

Section 2: Overview and Key Assumptions

To support the LEGO Play Measurement Research Study, RTI seeks a qualified **data collection firm** to lead the in-country pilot testing, in Kenya, of the primary tools. The data collection firm will be expected to perform the following activities:

- a) RTI will lead the research clearance process through local Institutional Review Board (IRB), relevant government institutions, and/or other methods, with support of offeror.
- b) Create and maintain cordial relationships with schools and government affiliates
- c) Provision of CVs and selection process for the requested number of assessors and supervisors for two phases of data collection
- d) Final selection of assessors and supervisors for two phases of data collection. For the Adapt Phase, RTI may suggest specific assessors to engage based on previous work in Kenya.
- e) Procurement and management of training site for 9 participants (plus 2 RTI staff) during the Adapt phase and 28 participants (plus 2 RTI staff) during the Test phase, including all the supportive logistical arrangements
- f) During Test phase assessor training week, access and transportation to schools for practice/training purposes to take place twice during the training period (2 separate days); each practice visit will last for ½ day and should include 2 schools (split assessors into 2 smaller groups to accommodate for COVID safety protocols)
- g) 28 assessors and 2 supervisors conduct data collection in approximately 70 schools (including transportation and accommodations at local per diem and accommodation rates)
- h) Provision of sufficient vehicles to transport all assessor teams to data collection sites/schools
- i) Data to be collected on Android tablets for every data collector (provided by the firm) with sufficient specifications (see minimum specifications in following section) to effectively implement the Tangerine software (www.tangerinecentral.org) and research tools provided by RTI. Tangerine is an open-source software developed by RTI. Data collected on tablets will be stored by RTI, not by the data collection firm.
- j) Supervisor responsible for data quality checks, liaising with RTI data analysis team on a daily basis.
- k) Oversight of data collection, including the following components:
 - a. Communicating with district education offices in order to ensure access to schools
 - b. Communicating directly with schools / head teachers to coordinate visits at each school
- l) Maintain regular communication with the Education Research Officer and the Principal Investigator.
- m) Other duties as assigned by the Education Research Officer or the Principal Investigator.

Applicants should be active in the country and be able to mobilize quickly for data collection, beginning the planning and initial work within one week of contract award. Applicants should be able to provide tablets for the data collection activity and will identify assessors with tablet-based data collection experience (ideally with Tangerine software and the Early Grade Reading Assessment (EGRA)).

Section 3: Assessments and Sample Design

Assessments:

The following instruments will be used as part of this research:

- Adapt Phase (Cognitive interviewing and small pilot):
 - a. Structured interviews
 - a. Teacher interview and student interview
 - b. Classroom observations
 - a. Observations of reading and mathematics lessons in grade 2 and grade 5
- Test Phase (Large-scale pilot):
 - a. Structured interviews
 - a. Teacher interview and student interview
 - b. Classroom observations
 - a. Observations of reading and mathematics lessons in grades 1 to 5

Sample Design:

Minimum sample size is indicated in the below table. Details under Test phase provide more information about possibility to obtain additional classroom observations/surveys.

| Kenya Data Collection Sample Sizes by Phase and Methodology | | | | | | | | | |
|---|-----------------------------|------------------------|----------------------------|----------------------|----------|-----------------------------|----------------------|----------|---------|
| Piloting stage | | Methods | Sample sizes 6-8 Age Group | | | Sample sizes 9-12 Age Group | | | Total |
| | | | Parents /homes | Teachers /classrooms | Students | Parents /homes | Teachers /classrooms | Students | N |
| II. ADAPT | a. Respondent understanding | Cognitive interviews** | N/A | N = 20 | N = 30 | N/A | N = 20 | N = 30 | N = 100 |
| | b. Pilot and revise | Surveys | N/A | N = 50 | N = 50 | N/A | N = 50 | N = 50 | N = 200 |
| | | Observations | N/A | J = 25 | N/A | N/A | J = 25 | N/A | J = 50 |
| III. TEST | a. Psychometric assessment | Surveys | N/A | N = 100 | N = 375 | N/A | N = 100 | N = 375 | N = 950 |
| | | Observations | N/A | J = 100 | N/A | N/A | J = 100 | N/A | J = 200 |

Section 4: Statement of Work with Tasks and Deliverables

ADAPT Phase (September/October 2021):

The ADAPT phase will adapt, iteratively pilot, and improve the tools. The phase will begin with cognitive interviewing regarding the perceived meaning of specific behaviors; and then will proceed to small-scale piloting of the tools in each country context. All tool measures will be revised and finalized at this point in preparation for full psychometric assessment which will happen after the TEST phase.

- Recruit Field Team for Adapt phase, which is sufficient assessors to conduct CI and then also conduct small-scale piloting
 - a. 3 assessors per school
 - b. 1 supervisor/field coordinator across the entire team
- Assessor training – Training will be facilitated by RTI staff member but offeror will cover the expenses for the venue, meals, and materials that will be used during the training. Accommodations and travel expenses of assessors, if applicable, will be covered and coordinated by the offeror.
- Working closely with RTI, arrange approvals for school visits/data collection, including Ministry approvals and providing required notices to schools

Illustrative schedule for ADAPT phase is referenced below. The final daily schedule will be determined in further consultation with the data collection firm and with RTI.

| | Monday | Tuesday | Wednesday | Thursday | Friday | Sat/Sun |
|--------|---|---|--|---|--|---------|
| Week 1 | Training for CI and qual. Work (9 assessors) | Training for CI and qual. Work (9 assessors) | Training for CI and qual. Work (9 assessors) | Training for CI and qual. Work (9 assessors) | Conduct CI (2 schools/day, team of 5 and team of 4, each assessor focuses on specific tool); afternoons used to discuss and revise | |
| Week 2 | Conduct CI (2 schools) | Conduct CI (2 schools) | Conduct pretesting with instruments/electronic versions (2 schools) | Conduct CI (2 schools) | Conduct pretesting with instruments/electronic versions (2 schools) | |
| Week 3 | Break for instrument revision/review | Break for instrument revision/review | Break for instrument revision/review | Break for instrument revision/review | Small-scale pilot (3 schools, each assessor does 2 classroom observations, 1 teacher, and 3 students) | |
| Week 4 | Small-scale pilot (3 schools, each assessor does 2 classroom observations, 1 teacher, and 3 students) | Small-scale pilot (3 schools, each assessor does 2 classroom observations, 1 teacher, and 3 students) | Small-scale pilot (3 schools, each assessor does, 2 classroom observations, 1 teacher, and 3 students) | Small-scale pilot (3 schools, each assessor does 2 classroom observations, 1 teacher, and 3 students) | Small-scale pilot (3 schools, each assessor does 2 classroom observations, 1 teacher and 3 students) | |

TEST Phase:

The Test phase will involve larger-scale pilot testing in Kenya and will include a psychometric assessment of the tools. Like the Adapt phase, the offeror will be responsible for the following aspects:

- Recruit Field Team for Test phase
 - a. 4 assessors per team; 7 teams
 - b. 2 supervisors/field coordinators across the entire team
- Assessor Training – Training will be facilitated by RTI staff member but offeror will cover the expenses for the venue, meals, and materials that will be used during the training. Accommodations and travel expenses of assessors, if applicable, will be covered and coordinated by the offeror.
- Arrange approvals for school visits/data collection, including Ministry approvals and providing required notices to schools

- Obtain appropriate consent/assent from participants

Illustrative schedule for TEST phase is referenced below. The final daily schedule will be determined in further consultation with the data collection firm and with RTI. It is estimated that each assessor team could complete 5 classroom observations, 5 teacher interviews, and 12 student interviews per day at each school visited.

| | Monday | Tuesday | Wednesday | Thursday | Friday | Sat/Sun |
|--------|---|--|-----------------------------|--|-----------------------------|---------|
| Week 1 | Training (28 assessors) | Training (28 assessors) – School visit | Training (28 assessors) | Training (28 assessors) – school visit | Training (28 assessors) | |
| Week 2 | Data collection (7 schools; collect 5 observations, 5 teacher interviews, and 12 student interviews per school) | Data collection (7 schools) | Data collection (7 schools) | Data collection (7 schools) | Data collection (7 schools) | |
| Week 3 | Data collection (7 schools) | Data collection (7 schools) | Data collection (7 schools) | Data collection (7 schools) | Data collection (7 schools) | |

Tablet Provision and Management:

The data collection firm will be responsible for providing 9 tablets (one per assessor) for the Adapt phase and 28 tablets (one per assessor) for the Test phase. The minimum tablet specifications are:

- Capacitive touch screen
- Android OS [v. 5.0.2 or higher]
- HTML 5-capable browser
- Wi-Fi (b/g/n)
- 4GB HDD
- 1GB Memory
- 1GHz dual-core processor
- 7 hours battery life (without Internet turned on)
- Ability to install third-party Android applications

The data collection firm will be selected on a competitive basis and payment will be made based on successful deliverable completion. The following are the deliverables:

1. Approved list of assessors, supervisor, and translator for Adapt Phase; confirmation that the required number of tablets are available

2. Daily field updates during Adapt Phase (CI and small-scale piloting)
3. Completion of Adapt Phase (CI and small-scale piloting data uploaded/shared with RTI)
4. Approved list of assessors and supervisors for Test Phase
5. Daily data collection supervision reports during Test Phase
6. Complete and accurate dataset uploaded to the RTI Tangerine Central cloud
7. Brief final data collection report, noting progress, challenges, and how the challenges were mitigated

Section 5: Staffing

The data collection firm will provide a Manager/Team Leader, 2 data collection supervisors, and assessors.

Section 6: Anticipated Timeline of Activities

| Activity | Estimated Time Frame |
|--|---------------------------|
| Finalize contract | Sept. 20, 2021 |
| Recruitment of assessor and supervisor for Adapt Phase | Sept. 20 – Sept. 30, 2021 |
| Assessor Training – Adapt Phase | Oct. 2021 |
| Adapt Phase (CI and small-scale pilot) | Oct./Nov. 2021 |
| Assessor Training – Test Phase | Jan. 2022 |
| Data Collection – Test Phase | Jan./Feb. 2022 |