

Piloting Child SEL Measurement under the “Scaling SEL Content through Kakuma Camp” project

Study Design

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1. Introduction

Kakuma Refugee Camp, established in 1992 in northwestern Kenya, has seen a significant population increase, reaching 782,468 registered refugees and asylum seekers by July 2024. The camp’s education system, comprising 13 pre-schools, 21 primary schools, and five secondary schools, faces major challenges, including overcrowded classrooms with over 200 students, mixed age groups, and limited teaching resources. Despite high primary school enrollment (92%), access to pre-primary (56%) and secondary education (6%) remains low.

In partnership with Porticus and local organizations, Ubongo aims to reach 30,000 children in Kakuma with engaging, culturally relevant educational content between 2025 and 2029. See [UBONGO REVIEWED Porticus Grant Application_141024.docx](#)

This will be achieved through:

- Distributing Ubongo content for children and caregivers through free-to-air TV and radios, digital platforms, and last-mile partnerships with local organizations.
- Strengthening engagement with key stakeholders in a child’s environment - including; parents, facilitators, teachers, caregivers, community leaders, and local governments - to ensure that the content we develop continues to be responsive to their needs.
- Hosting workshops, capacity-building opportunities, and roadshows with local partner organisations.

The project aims to achieve the overall goal of: Children and caregivers in Kakuma refugee camp have the social-emotional knowledge and skills needed to support healthy cognitive development, well-being, and success in school and home life.

There are three overall outcomes which need to be tracked throughout the project.

1. Partners and stakeholders integrate SEL into their services and programs: This will be tracked through project monitoring activities, feedback from partner organisations

2. Increased social-emotional skills and learning among children in Kakuma Refugee Camp: As part of Ubongo's organisational MEL plan, we are currently designing a standardised approach to measuring shifts in children's SEL, including confidence and motivation for seeking out learning opportunities, and executive functioning skills (which were identified as a key factor in leading to improved literacy¹), as well as other SEL. This study will be used to pilot the approach to measuring these indicators, particularly indicator 1.1 on child confidence and motivation, to inform the longer term MEL on this project (as well as to be used for other Ubongo work around SEL). Measurement of (academic) learning outcomes is being piloted through an experimental study in Uganda, so that is not being included in this study.
3. Increased caregiver awareness of and engagement with positive SEL activities and behaviors with their children: Ubongo is currently piloting its approach to measuring impact on caregiver attitudes and behaviour as part of caregiver content distribution in Uganda. The findings from that pilot will be used to inform the measurement approach for the Porticus project in Kakuma.

2. Study objectives and research questions

The primary purpose of this study is therefore to:

- Pilot the measurement for Porticus project outcome 2: Increased social-emotional skills and learning among children in Kakuma Refugee Camp to inform a final MEL approach and tools for this project (and ensure this aligns with Ubongo's logframe so that the approach and tools can also be used for other Ubongo projects on confidence & motivation and wider SEL).

However, the study will also:

- Collect early evidence of the effectiveness and impact of the different distribution activities under the Porticus grant and identify recommendations for the approach going forward as well as mechanisms for replication in other countries (full impact measurement will come later in the project).

The study questions that will be answered are:

Main research questions	Sub Questions
1. To what extent and in what ways do children's confidence and	<ul style="list-style-type: none"> • How do children, caregivers, and teachers define and perceive

¹ In a study conducted by Busara for Ubongo, they identified executive function skills, such as cognitive flexibility, inhibitory control, working memory, planning, and attentional control, as supporting literacy by enabling readers to focus, process, and comprehend text effectively while managing cognitive demands.

<p>motivation toward learning change after exposure to Ubongo content (in a refugee setting)? What are the most appropriate tools and questions for measuring this shift?</p>	<p>confidence and motivation in learning?</p> <ul style="list-style-type: none"> • How do children express confidence when learning? (Eg classroom activities or on their daily activities) • To what extent does children's reported confidence and motivation in learning increase after engaging with Ubongo content? • What role do family dynamics and caregiver support play in shaping children's confidence and motivation? • What impact does the presence of community-based support networks (e.g., teachers and caregivers) have on children's confidence? • How does Ubongo content make children more excited to learn and join activities? How ? • What are the best approaches to measuring Ubongo's impact on children's confidence and motivation (in a refugee setting)?
<p>2. To what extent and in what ways do executive functioning skills change after exposure to Ubongo content (in a refugee setting)? What are the most appropriate tools and questions for measuring this?</p>	<ul style="list-style-type: none"> • To what extent does executive functioning (working memory, , cognitive self regulation /inhibitory control and cognitive flexibility) increase after engaging with Ubongo content? What role does Ubongo content play in influencing this? • What are the best approaches to measuring Ubongo's impact on children's executive functioning skills (in a refugee setting)?
<p>3. To what extent and in what ways do children's SEL outcomes improve after exposure to Ubongo content (in a refugee setting)? What are the most appropriate tools and questions for measuring this?</p>	<ul style="list-style-type: none"> • To what extent do SEL outcomes improve after engaging with Ubongo content? What role does Ubongo content play? • How does SEL affect students' performance outcomes ? • In what ways does social emotional learning (SEL) influence children's overall development including their academic performance, behaviour

	<p>and well being in different learning environments and social context (according to children and their teachers and caregivers)?</p> <ul style="list-style-type: none"> • What are the best approaches to measuring Ubongo's impact on children's SEL (in a refugee setting)?
<p>4. How effective are the different distribution mechanisms?</p>	<ul style="list-style-type: none"> • How do refugees and key stakeholders perceive the efficiency and impact of the distribution process and activities? • How could the distribution approach be adapted to better meet their needs in the future? (Their suggestions as well as our own recommendations based on the findings) • What specific outcomes (both positive and negative) do refugees associate with the distribution activities? • Which of the successful distribution mechanisms from Kakuma can be adapted to other refugee settings? • What challenges must be addressed to replicate effective distribution systems in other refugee settings? • How does involving local community members in the distribution process (e.g., as volunteers or coordinators) improve the effectiveness and sustainability of the distribution process?

3. Methodology

Data collection methods

Data collection will be conducted at two timepoints.

Note: For the purpose of the pilot we will call these “baseline” and “endline”, recognising that the endline is not a true endline as the project will continue after this and further MEL activities will be conducted (the MEL plan will be designed based on the findings from this pilot).

Quantitative surveys

At baseline and endline, surveys will be conducted with children in target locations/schools for Ubongo content distribution. The data collection team will aim to ensure that the same respondents participate at baseline and endline for the purposes of comparison, but will over-recruit at baseline as a mitigation against respondent attrition.

Most Significant Change

Most Significant Change (MSC) is a method used to gather stories of the most significant impacts of a project or programme from project participants and implementing partners. Study participants are asked to tell stories about the most significant impact the project has had on their lives. Storytelling is a key component of many of the cultures where Ubongo works, for example it was mentioned by many caregivers as a form of play in the caregiver formative study, so using it as part of MEL brings in a more democratic, participatory, human-centred, decolonised approach where findings are co-created with the communities where we work and we build a shared understanding of impact.

It also allows us to collect stories of unintended impacts, and understand the steps along the path to impact, supporting learning from the project on what works or doesn't work to encourage positive parenting practices in crisis situations, and why.

Stories will be collected about the impact of the intervention on children at endline stage using in-depth interviews (and possibly small focus group discussions) with children (aged 5+, equally divided into girls and boys, including at least 15% children with disabilities) exposed to Ubongo's edutainment content and, short validation interviews with their parents/primary caregivers and teachers.

Key informant interviews

Key informant interviews will be conducted with partner organisations, community leaders, local government and teachers to understand their perspective on the effectiveness and impact of the different distribution approaches.

Sampling

To effectively measure the impact of Ubongo content on children's confidence and motivation, a combination of surveys, Most Significant Change storytelling, and Key Informant Interviews will be used. The sampling approach ensures representation across different stakeholder groups and perspectives and uses a purposive sampling approach.

Children - survey and Most Significant Change

For the pilot, 50 children aged 5-14 (it will be difficult to survey children younger than 5) will be selected from locations (centres)/schools being targeted for distribution, with the idea that by endline stage they will have been exposed to Ubongo's content. The same 50 children will be surveyed at baseline and endline. At endline, the survey will be followed up with Most Significant Change interviews with the same 50 children. A total of 50 children will be included, consisting of 25 boys and 25 girls. To ensure inclusivity of people with disabilities (minimum 15% of the sample), the sample will include 4 boys and 4 girls with disabilities.

Distribution approach	Sample	
	Male	Female
Refugee-led organisations	15 (2 with disabilities)	15 (2 with disabilities)
Schools	5 (1 with a disability)	5 (1 with a disability)
Porticus implementing partners	5 (1 with a disability)	5 (1 with a disability)
Total	25 (4 with disabilities)	25 (4 with disabilities)

The Most Significant Change approach will also include short follow-up interviews with 1-2 parents/caregivers or teachers of the children. We expect to conduct approximately 50-60 such follow-up interviews. While we will aim for gender balance, this may not be possible depending on family structure (the gender of the caregivers present) and the gender of the teachers.

Key informants

We will conduct 15 key informant interviews at baseline and endline. The breakdown is shown below:

Category	Number
Partner staff/volunteers	5
Community leaders and local government	5
Teachers in partner schools	5
Total	15

Data collection tools

Standardised tools for quantitative (structured) and qualitative (semi-structured) data collection will be created. Data collection will be conducted in Swahili. Tools will be translated into Swahili before fieldwork commences. (Note: After the pilot, tools will be translated into other relevant languages)

Survey questionnaire

The survey questionnaire will include structured questions asking about:

- Demographics: gender, age, disability (Washington Group questions), socio-economic status of the household, and the main language used at home (will be asked to a parent/caregiver)
- Exposure to Ubongo content (including character recognition) to test any previous exposure prior to the baseline, as well as verifying at endline how much they have been exposed throughout the intervention.
- Child confidence and motivation questions: see proposed survey questions [here](#), also check Busara's questions that come from RTI [here](#)
- Executive functioning tests: check Busara's tools, e.g. Cognitive Flexibility & Creativity (Executive Function Skill) tool: Alternative Uses Task (Guilford, 1967; van Dijk et al, 2020) In the Alternative Uses Task, children are asked to think of as many different uses as possible for a common object (a pencil, a tyre, and a book). This task requires them to shift their thinking from conventional uses to more creative and unconventional uses.
- SEL - using SEL scales previously used in Ubongo studies

The survey questionnaire will also include some unstructured questions to cross-check against responses to structured questions.

Discussion guides - Most Significant Change and Key informant interviews

Qualitative discussion guides using semi-structured and open-ended questions to understand the impact of the project.

Data collectors

We will hire a data collection firm or group of consultants based in Kakuma for the baseline and endline data collection. See [Terms of Reference](#) for more details.

4. Analysis and reporting

Quantitative analysis

Quantitative survey data will be analysed descriptively using SPSS including disaggregating by key demographics. Variables will be recoded to create numeric values summarising attitudes and behaviour based on results of factor analysis (to test construct validity) and Cronbach's alpha (internal consistency), and Repeated Measures Anova will be used to compare these values between baseline and endline.

Qualitative analysis

Analysis will start in the field through daily debrief sessions. Notes from these sessions will be included in the analysis framework.

Data from open-ended survey questions will be analysed qualitatively and triangulated with responses to structured questions (quant) to verify the responses.

Qualitative data from in-depth interviews and the Most Significant Change approach will be analysed thematically in excel using a mix of predetermined themes and themes which emerge during the research. Data collectors will be asked to write up a narrative of each MSC story.

Data triangulation

Findings from qualitative and quantitative data will be triangulated and compared to verify that responses from structured survey questions align with responses to open-ended questions and findings from the MSC approach. Both will be presented together in the report to add depth to the findings - for example the MSC approach may highlight unexpected outcomes and the KIs will highlight any areas where the implementation of the distribution is working well or experiencing challenges, which

could explain reasons for the impact or lack of impact being seen from survey responses.

Measurement framework

To ensure clarity, rigor, and alignment with global good practices in education measurement, the following table outlines the outcome areas, specific indicators, data collection tools, timing, and analysis approach to be used in this study:

Outcome Area	Specific Indicator	Measurement Tool	Data Collection Method	Timing	Analysis Approach
Socio-Emotional Learning (SEL)	Children demonstrate improvements in emotional regulation, empathy, and social interaction	Adapted SEL scale from recognized frameworks (SECQ ² , IDELA ³) MSC stories.	Interviewer-administered child survey. Qualitative interviews with stakeholders and children (and their caregivers)	Baseline and Endline	Descriptive statistics; paired t-tests or Wilcoxon test, triangulated with findings from KIIs and MSC interviews.
Confidence and Motivation	Children report increased confidence and intrinsic motivation to learn	Likert-based attitude items ⁴ and confidence & curiosity scale adapted by RTI ⁵ . MSC stories	Interviewer-administered child survey. Qualitative interviews with stakeholders and children (and their caregivers)	Baseline and Endline	Mean score comparison; pre-post change analysis, triangulated with findings from KIIs and MSC interviews.

² See https://www.researchgate.net/publication/261872642_Development_and_validation_of_social_emotional_competency_questionnaire? The Social-Emotional Competence Questionnaire (SECQ) is a survey designed to assess how children and adolescents (grades 3 to 12) are aware of themselves as well as others and how they respond to family, school, and community contexts personally, socially and ethically.

³ https://docs.google.com/document/d/0B_as6AXmcrXmYTNsczQwbWhHTk0/edit?resourcekey=0-PO_o4rsuysEoC_5Y4UDf2A

⁴ Adapted from https://www.researchgate.net/figure/Confidence-Questionnaire-adapted-from-Finch-2004_fig4_328039601

⁵ Confidence & Curiosity Scale: Jukes et al. (2021), adapted by RTI for East Africa and used by Busara for Ubongo studies https://docs.google.com/spreadsheets/d/1pU8A2q8a2B4Q9SuGGFmIXlsc9AvHc06_uaileVAtUUA/edit?gid=0#gid=0.

Outcome Area	Specific Indicator	Measurement Tool	Data Collection Method	Timing	Analysis Approach
Executive Functioning Skills ⁶	Improvement in children's working memory	Digit span task ⁷ MSC Stories	Direct task-based assessment by trained enumerators conducted as part of a survey interview. Qualitative interviews with stakeholders and children (and their caregivers)	Baseline and Endline	Quantitative scores; observation notes; Quantitative results triangulated with findings from KIIs and MSC interviews.
	Improvement in children's cognitive self-regulation and inhibitory control	Stroop task ⁸ (only for children who can read) and HTKS (Head-Toes-Knees-Shoulders) task ⁹ MSC Stories			

⁶ See Ubongo Playbook <https://busara.global/wp-content/uploads/2025/04/Ubongo-Playbook.pdf> and <https://www.nellkduke.org/the-active-view-of-reading>

⁷ See <https://cambridgecognition.com/digit-span-dgs>

⁸ See <https://www.psytoolkit.org/experiment-library/stroop.html>

⁹ HTKS task (see <https://cdn.vanderbilt.edu/vu-my/wp-content/uploads/sites/412/2012/09/14084327/HTKS-without-stats-info.pdf>) measures inhibitory control, working memory, and attention focusing, but is a more appropriate metric for children who can't read well enough for the Stroop Task. It is also active and fun which may help the child to be able to pay attention to the rest of the survey tool.

Outcome Area	Specific Indicator	Measurement Tool	Data Collection Method	Timing	Analysis Approach
	Improvement in children's cognitive flexibility	Simplified version of Alternative Uses Task ¹⁰ MSC Stories			
Distribution Effectiveness	Perceived relevance, access, and utility of Ubongo content distribution	KIIs and MSC stories	Qualitative interviews with stakeholders and children (and their caregivers)	KIIs: Baseline & Endline; MSC: Endline only	Thematic and narrative analysis

Notes:

- Tools will be piloted and adapted for cultural and linguistic appropriateness in the Kakuma context.
- Children with disabilities will be included and accommodations will be designed as part of inclusive protocols.
- Pre-post comparison will focus on change over time; causal claims are not the primary goal of this pilot.
- The framework will be updated after the pilot to guide ongoing MEL in this project.

¹⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7709704/> Adapted to make it simpler for enumerators. Should we bring the object or show a photo? Enumerator to note down all responses in the survey tool (Score for fluency- number of uses mentioned, flexibility - number of categories of uses, and originality - mentioned uses that were mentioned by less than 10% of respondents)

Workshop / final debrief

At the end of the endline data collection, we will conduct a final debrief with the data collectors and partner organisations where we will:

- Discuss the survey questions and tools and any further edits needed to make the questions clear
- Agree on the most significant stories from the MSC approach and the overarching themes
- Discuss the way forward for the distribution activities

Reporting

The findings will be shared through several approaches, based on the overarching objectives of this study:

1. Finalising the MEL plan for this project, including timelines, approaches and tools
2. Updating Ubongo's measurement approach for the indicators being measured in this pilot outlining what the findings were from this pilot, and accompanied by standardised tools to be used in other contexts.
3. Powerpoint presentation on the findings: A Powerpoint presentation will be created and presented to the Growth Team sharing the findings about the effectiveness and impact of the different distribution approaches being used to inform ongoing project implementation and learnings for other contexts

5. Ethics and safeguarding

Ethical and safeguarding processes will be followed, including:

- Informed consent: We will get informed consent from all participants for participation, quoting their comments and taking photographs, where relevant. Since children under 18 are the main respondents/participants in this measurement pilot, informed consent will be obtained from a parent or guardian (aged 18+), as well as assent from the child.
- Voluntary participation: Participation is voluntary, including for children (they should not be pressured to participate if they don't want to). Respondents/participants will be informed that they can decline to participate, refuse to answer any questions they don't want to answer, or discontinue the interview.
- Anonymity: Findings will be kept anonymous, except in the case of key informant interviews, where their organization and job title will be used in reports, with their consent. Participants' names will not be stored together with audio recordings or written on notes or transcripts to protect their anonymity.

- Data protection: Data such as notes, audio recordings, transcripts and photos will be stored securely on password protected devices. Physical notes will be written up digitally as soon as possible (within maximum 1 week) and the physical copies destroyed.
- Gender and disability inclusion: As far as possible, interviews will take place at respondents' homes meaning anyone with mobility issues will not have to travel. Consideration will be taken to shorten the length of the interview or take breaks, depending on the needs of the individual. The data collection teams used will be a mix of male and female with female data collectors interviewing female respondents and male data collectors interviewing male respondents as far as possible.
- Child protection: No member of the data collection team or Ubongo staff member or consultant will be alone with anyone under the age of 18 at any time. They should not collect the individual contact details of anyone under the age of 18 - instead using the contact information of a parent or caregiver. We will also discuss other child protection strategies with the data collectors.
- Safeguarding: All those involved in the research, whether Ubongo staff or consultants, members of the data collection team, or research participants need to be kept safe from harm and exploitation. This means choosing safe methods of transport and safe locations for activities, ensuring everyone is able to protect their health and wellbeing through sufficient rest and regular meals, and using the daily debrief sessions to discuss any concerns and solutions as they arise.
- Training: Data collection teams, including any Research Assistants they hire later, will be trained on ethics and safeguarding.
- Understanding and sensitive approach to interviewing children: Surveys with children can be challenging due to short attention span and the structured nature of questions. Children will be interviewed with a caregiver present. Enumerators will spend time building rapport with the child before beginning the interview. If a child becomes distressed or confused, the enumerator should pause the interview briefly, express sympathy and resolve any confusion before proceeding. Enumerators will not rush the child's responses and will allow time to repeat questions. At baseline, we will check to see whether the length of the survey instrument is appropriate and make changes if necessary.

See more information in the [Ethics in Research Training Slides](#).

6. Timeline

The timeline including who is responsible for each activity is outlined below.

Date	Task	Responsible
1st - 31st March	Design the pilot study	Catharine Buckell gladis aswile
17th March - 18th April	Design data collection tools, translation, scripting into data collection software	Catharine Buckell gladis aswile
1st - 11th April	Review and approval of the study design (share with Porticus)	Kibathi Peter Phillip Kakande Porticus representatives (Tripleline)
15th April	Advertise for data collectors	Catharine Buckell Kibathi Peter Phillip Kakande
28th April - 16th May	Data collectors selection and contracting	Catharine Buckell Kibathi Peter Phillip Kakande
April-May	Plan fieldwork, liaise with partner organisations, permissions, etc	Catharine Buckell Kibathi Peter
w/c 26th May	Baseline data collection Launch of distribution activities (same trip)	Catharine Buckell & MEL Officer, Kibathi Peter
By end May	Data analysis	Catharine Buckell
By mid June	Summary baseline report	Catharine Buckell gladis aswile
w/c 4th August (TBC)	Endline data collection	Data collectors, Catharine Buckell & MEL Officer
Early August	Debrief workshop	Catharine Buckell Kibathi Peter, Data collectors, Partners
August	Data analysis	Catharine Buckell gladis aswile MEL Officer
August	Final reporting	Catharine Buckell gladis aswile MEL Officer

August/Sept	Create MEL plan for the rest of the project	Catharine Buckell Phillip Kakande Kibathi Peter
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7. Budget

Estimated costs

The budget for the baseline and endline data collection, including transport for the Research Advisor (Catharine Buckell) and MEL Officer and costs for the data collection firm/consultants is \$22,080 (approx 20,000 EUR). The full breakdown can be found [here](#) [Internal document only]. This comes from the MEL Activities budget line under the [Porticus project budget](#) [Internal document only].

The costs for distribution activities and distribution team travel will be covered under a separate budget line.