This document follows the framework explained <u>here</u>.

Idea

Problem

The <u>Effective Basic Education Program</u> addresses the learning crisis, identifying its causes and constraints. The program's goal is to improve learning outcomes by increasing *daily learning minutes* through enhanced *supervision* and *reducing the number of subjects without learning and practice materials*, while operating within the constraints of low adult literacy rates and limited resources.

How do you ensure a child spends more time learning, and a more challenging problem is, how do you get an adult who can't read and write to engage a child in learning? Helping a child develop the ability to learn by themselves can help with the first issue. Imagine you have only thirty(30) minutes, but you want your child to learn for two(2) hours. If the child can learn by themselves, then the problem is solved; else, you'll have to pay for or get someone to continue supervising them. In a low-resource, low-literacy environment, there isn't anybody and there isn't money to pay somebody, so children have to be able to learn by themselves.

The starting place for self-learning, of course, is to develop the foundational skill of reading. But how do you develop the foundational reading skills of children in low-literacy, low-supervision, and low-resource environments in a scalable way? That is the mission of the Tunasoma project.

Solution

Tunasoma is the digital mother-tongue dictionary(<u>see an English demonstration</u>) for children whose guardians can't read and write, living in low-resource and low-supervision environments. It is built on technology developed by <u>Ghana NLP</u>. The technology enables two(2) things in local languages:

- 1. Transcribing spoken language to written text
- 2. Transforming spoken text to written text.

As indicated in the <u>Effective Basic Education Program</u>, to improve learning outcomes such as foundational *reading ability*, there's a need to increase daily *learning minutes*, which in turn requires increasing *supervision minutes* and reducing children *without learning and practice resources*. The Tunasoma project will solve this by:

- Developing Tunasoma sites where a group of children will be engaged by a hired supervisor with Tunasoma technology. This will increase supervision minutes and provide learning and practice resources.
- 2. Enable parents who can't read and write to participate in the development of the reading skills of their child through Tunasoma technology. A parent can simply tell their child a story and have key words transcribed. This should also increase supervision minutes and provide learning and practice resources, as illiterate parents can now engage their children and turn their oral stories into books.

Goal

Given our mission and values, here is what we are setting out to achieve.

- Reduce the number of children without access to a guide and supervisor to zero by augmenting the capacity of parents and teachers with natural language processing technology
- 2. Reduce the number of children without access to resources to zero
- 3. Make Tunasoma sites part of community culture

Steps/Process

- **1. Application**: Develop the Tunasoma application
- 2. Funds: Raise funds for resources and operations for the pilot
- **3. Pilot**: Figure out how to engage children with the Tunasoma technology and improve reading skills. Do this at 5 **Tunasoma sites**, targeting the development of reading skills in 50 children. Involves curating words
- 4. Scale: Scale the working solution after the pilot

People

The following are the roles we have found required. Other roles can be defined in addition to these by the Program Manager or the Board of Directors

- 1. Project Manager
- 2. Local Supervisor
- 3. Local Teachers

Sources of Funding

Read it here

Management and Administration

Things to Measure and Track

- 1. Learning minutes
- 2. Supervision minutes
- 3. Words a child can read
- 4. Participating parents

Visit the folders of the participating communities to get more information about management and administration

Communities

Find the participating communities <u>here</u>

Potential Organisational Capacity Development

- Organising a community
- Filling resource gaps