

# Sikshana Foundation's Flagship Model- 'Prerna'

The process of identification of the core principles and refining the Theory of Change

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## Executive Summary

This report is an analysis conducted by the Center for Sustainable Development (CSD), Earth Institute at Columbia University, for Vibha- an organization based in USA working to address challenges for vulnerable children. Vibha is one of the primary funders of Sikshana Foundation, a non-profit working in the field of children's education, based in Bangalore in India.

The report presents the methods and findings of an exercise conducted by CSD wherein Sikshana's flagship Prerna Model was studied in depth, in order to identify core principles of the model to enable further scale-up and present recommendations to tighten the program's theory of change. The Prerna Model is a motivation-based method that works to build children's interest and excitement for learning. From 2006, Vibha identified the benefits of the Prerna Model and Sikshana's ability to scale. With Vibha's funding support and support in building partnerships on the ground, the model saw success with a large scale-up, from working in a few districts of Karnataka to a state-wide partnership in a short duration along with potential partnerships with other state governments.

This report dives into addressing the success of this scale-up and recommendations for Sikshana Foundation and other organizations to scale the Prerna Model even further.

The report has the following recommendations to Sikshana Foundation and its partners that have the aim of scaling up operations for the Prerna model:

- The report lays out building blocks to construct a Theory of Change that is tight and clearly lays out programmatic objectives, processes and outcomes. Fleshing out this Theory of Change will be useful to ensuring the goals laid out for the program are met
- The way in which objectives and outcomes are communicated to all layers of the organization is important to maintain quality of program implementation
- Operational components such as training are important to retain essential programmatic information across several layers of implementors
- The success of the Prerna model relies heavily on buy-in and collaboration from local government. Building these government partnerships is essential to the success of this model
- A robust measurement system, for example in the form of a baseline and endline are

important to ensure that programmatic goals are being met

## Introduction and objectives

### Project purpose

This report presents the findings of an independent study to identify the core features of Sikshana Foundation's 'Prerna' model. Sikshana's successful implementation of Prerna have led to a state-wide government partnership of the Prerna model in Karnataka. Seeing this success, government partnerships are now in pilot mode in neighbouring states and there is increasing interest from still other states to replicate the model.

To ensure that the model can be replicated as closely to the originally designed one, this study will aim to provide recommendations for succinctly presenting the core elements of Prerna to other stakeholders. It will also suggest ways in which formal documentation such as the Theory of Change can be refined to create clearer links between program objectives, processes and outcomes, in order to ensure maximum impact.

### Vibha and Sikshana Foundation

Vibha is a 501-C(3) under title 26 of United States of America, and a registered, non-religious, non-political organization. Vibha India registered in 2008, works towards achieving the organization's mission to improve and fix systemic problems of underprivileged children, specifically to education. Right from identifying genuine projects that have the potential to address innate issues prevalent in the country, to nurturing them one-to-one through systematic administration, Vibha ensures that its project partners meticulously accomplish their implementation programs thereby delivering return on the social investment made by its Donor partners, justifying its role as the **Social Venture Catalyst**.

Having identified Sikshana's Prerana program as a replicable, scalable and sustainable model to bring transformation in the Public education system, Vibha has been nurturing Sikshana's Prerana program since 2006.

Sikshana's Journey with Vibha has been a very gratifying one with Vibha stepping in at all decisive stages in the successful span of implementing Prerana from **49 schools to 49000 plus schools**, in the last decade in Karnataka. It all started with Vibha funding Sikshana for implementing Prerana for an entire taluk after realizing that the motivation angle seems to be working well. To understand how this would scale up in a larger context (pan India), Vibha stepped in with their Outreach program inducting about 20 of their partner NGOs across the country in a training program to understand the model and few of them tried implementing it in their states (AP and Gujarat).

The next step was to scale it up to North Karnataka and yet again, Vibha with its foundation stream in US marketed the program in a big way and were able to rope in major donors that included Yahoo Foundation, Juniper networks among others. Backed by this successful experience, Sikshana launched the Accelerator program, whereby they train and use the existing CRP (Cluster resource person, a layer within the Sarva Siksha Abhiyan, Education Department) to understand and implement the program in their schools, with Sikshana donning only the facilitator role. Again, Vibha funded and helped out with this effective plan which made a significant impact on the State education department, which started working in tandem with Sikshana. This was truly a game changing milestone event in Sikshana – Vibha's journey.

Vibha fully funded the pilot implementation in two districts in 2016/17 for a period of three years. Observing the positive impact in just about 6 months of this original yet simple model that can be handed over and run by the State, the State government has fully funded and launched the program across the state. Understanding that the true success lies with the outcome, Vibha is funding the Knowledge transfer and the monitoring efforts of Sikshana.

Backed by the experience and expertise gained in implementing Prerana program in Karnataka, the Sikshana – Vibha journey is traversing across other Indian states as well that include Tamilnadu, Gujarat, AP, Telengana and Maharashtra.

### **The Prerna Model**

The Prerna model is one of Sikshana Foundation's flagship programs. It currently runs in partnership with the Government of Karnataka across Grade 4 to 9 governments schools in

all of Karnataka's educational districts. The core of the Prerna model focuses on increasing children's motivation to learn. Primary activities under the Prerna model include some of the following:

(i) Stars: Stars are given by teachers to the students when they put in an effort to do certain kinds of activities. There are three colours of stars- pink, green and silver. The idea is to encourage participation in academic and non-academic activities and therefore each star represents a different activity.

(ii) Prerna club and peer learning: The Prerna club is aimed to encourage leadership skills amongst students that have demonstrated potential. Representatives from Grade 4 to 9 are selected with a President of the club.

(iii) Practice book through structured learning: In order to provide a structured learning environment, practice books are used to encourage students to get into the habit of routine practice learning. The practice material complements the content covered during usual classes. Practice books are provided in Kannada, English and Math. After the completion of each unit, the relevant practice books are meant to be used to strengthen the concepts learnt in the lesson and inculcate a habit of dedicated practice.

(iv) Progress reports: Progress reports enable students to gain a roadmap of their learning journeys in a visual manner. Objectives of subjects they are studying are laid out and they are able to achieve stickers that represent their progress for a particular topic mastered. The goal of the personalized nature of the report and certificate allows the students to feel ownership for their own learning.

In total, these elements aim to work together in order to provide students a motivational environment in which to work in.

### **Scope of the study**

The requirement of the program study was to refine the Theory of Change for the Prerna model in order to gauge the possibility of a seamless scale-up to other states that have shown interest in replicating the model. The study was not intended to be a program or

process evaluation; rather the objective is to understand the origins, history and details of the model to ensure complete clarity in conveying its objectives. The study will be able to identify the core elements of the model that have the potential of being scaled-up.

## Methodology

### *Activities conducted during the study*

In order to understand the core elements of the Prerna model, the following activities were conducted.

#### 1. Document Review

Sikshana provided program-related documents in order to understand Prerna's model in a deeper manner. These documents were studied for documented norms and procedures regarding Prerna and formed the basis for mapping interview opinions.

The following activities were conducted during a field visit in Bangalore, Karnataka between 23<sup>rd</sup> to 26<sup>th</sup> July 2019 as part of primary data collection and discussion:

#### 2. Interviews

Interviews were conducted with the following stakeholders:

Type of Stakeholder	No. of respondents
Senior management and leadership	2
Team leads/program experts	7
Field managers	2
Teachers	3
Staff from Vibha	2

Interviews were conducted either one-on-one or in a group format, with interview questions prepared in advance. The nature of questions were directed towards the respondent's specific role while some questions generally addressed the Prerna model. The sample of interview respondents is not representative of the organization. Purposeful interviewee selection was done so that a few respondents from each layer in the organization could be spoken to. Sikshana Foundation was provided with the number of

respondents to be interviewed from each layer after which the organization provided names of respondents.

### 3. School Observation

A field visit was conducted on 25<sup>th</sup> July 2019 to two schools where the Prerna model is being implemented under the government partnership. One school was in a more urban setting, while the other school was further away from the city of Bangalore. The objective of the school visit was to interview school staff as well as to briefly observe classrooms in which the Prerna model was being implemented. The school selection was done by Sikshana Foundation and is not a representative sample of the program. Rather, the objective was to get a brief overview of how the program is run in schools, as opposed to collecting data or measuring anything at the school-level.

### 4. Theory of Change Workshop

On the last day of the visit to Bangalore, a theory of change workshop was held with participants from Sikshana and Vibha as well as two external organizations that had come for an educational visit. The workshop consisted of an exercise where participants answered a series of questions regarding their thoughts on the existing goals, objectives, processes and outcomes of Prerna. These were mapped onto Prerna's Theory of Change document provided by Sikshana to identify gaps and areas for improvement. The exercise served as a starting point for team members to think about how to tighten Prerna's logic model.

### Methodology for Analysis

The analysis will follow the postpositivism worldview of qualitative research (Cresswell, 2003). The researcher follows reductionism by narrowing and focusing on select variables to interrelate. In the postpositivism perspective, the researcher will follow from "top" down, from a theory to hypotheses to data to add to or contradict the theory.

This approach was best suited for the purpose of this research study because of the specific nature of the research question. The research objective was to understand the main



program objectives of Sikshana to be able to deduce key factors that make-up the model itself. To be able to understand the Sikshana model, the researcher started to review program documents and observe key conversations. This formed the basis of developing interview questions for the field visit.

The Postpositivism worldview helped to keep the research objective in mind, which was to understand the Sikshana model and reduce its core essentials. Interviewing the staff, visiting schools to understand the pedagogy in action, and collaboratively developing and updating the Theory of Change helped to understand the key elements of the program.

The key program components from the Theory of Change workshop guided the data analysis. Themes were pre-decided based on the workshop. These key themes were the basis of the data analysis in NVIVO (qualitative software). This reductionist approach helped to validate the key themes and their frequencies in the data. The number of times the theme occurred in the empirical analysis reflected the importance of theme in the program design.

## **Findings and Analysis**

In order to understand the key components of Prerna, key questions were analyzed and broad themes under these identified, in order to understand the crux of the program.

### **(a) What is the objective of the Prerna program?**

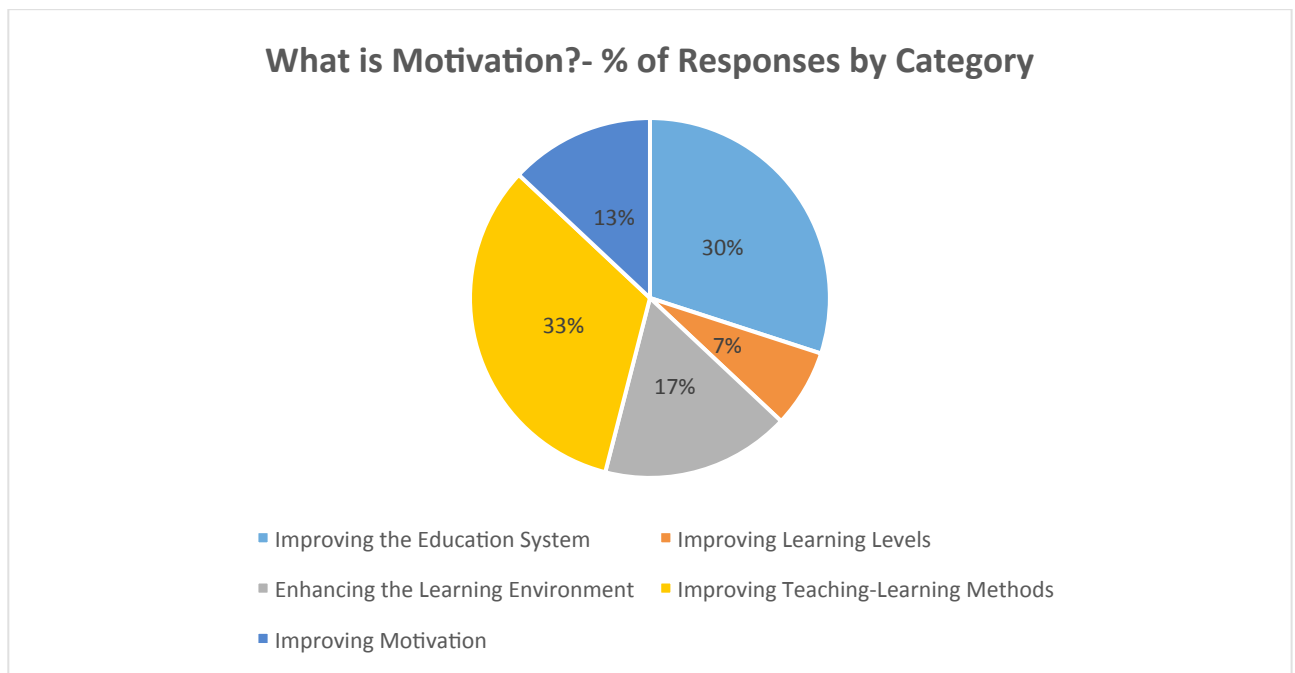
The following findings aim to answer the question of the objectives of the Prerna model based on the theory of change activity and interview responses. This question has been analyzed in order to get a sense of how various stakeholders within and outside the organization perceive the goals of the model. Arguably, for a stronger implementation, goal clarity within the organization and also to convey to other organizations/government partnerships that are preparing to undertake Prerna.

(i) Analysis 1: Theory of Change Workshop

In the session regarding the Theory of Change including participants from Sikshana, Vibha and external organizations, participants were specifically asked to note down bullet points on what the objective of the Prerna model is. The following table provides the raw data of responses from each type of stakeholder. Exact responses have been reproduced below:

<b>Theory of Change Exercise: “List the specific things that the Prerna model is trying to do. What is the objective of Prerna?”</b>	
<b>Responses</b>	<b>Respondent Organization</b>
Impact as many schools with maximum return on investment	Sikshana
Bring more collaboration in the system as well as interaction	Sikshana
Motivate the ecosystem	Sikshana
Improve learning levels	Sikshana
Create a safe to fail environment	Sikshana
Motivate students to attend, participate in school	Sikshana
Enhance classroom culture	Sikshana
Involve stakeholders	Sikshana
Ring in changes and make the schooling system more effective	Sikshana
Culture of learning from each other	Sikshana
Provide process of structure to inculcate habit of practice in students	Sikshana
Motivate children to take more interest in studies	External NGO
Promoting peer-learning	External NGO
Collecting a large amount of data from schools for future planning	External NGO
Encouraging teachers to motivate children in real-time basis	External NGO
More open in class and asking questions	External NGO
Raising motivation	External NGO
Enhancing practice	External NGO
Creating peer cooperation	External NGO
Putting demand on teachers	External NGO
Bringing in parents to school	External NGO
Develop leadership	External NGO
Create ownership by government at all levels	Vibha
Bring children back to school and stay	Vibha
School as a space where students come happily	Vibha
Safe environment	Vibha
Leadership	Vibha
Motivation	Vibha
Child participates in class- Questioning	Vibha
Help children achieve grade-level skills	Vibha

The above responses can be further broken down into buckets in order to get an overall sense of what the distribution of responses are. The following pie-chart provides a break-up.



‘Improving the education system’ and ‘Improving teaching-learning methods’ are the categories that received the highest frequency of responses.

#### (ii) Analysis 2: Interview Responses

With respect to interview analysis conducted in NVIVO, the following key themes were touched upon by different levels of interviewees within Sikshana:

##### Senior Management:

*“the first point for success would be the adoption of the model. We are not looking at any kind of results in terms of learning levels and all, the first is the adoption of the model, whether the government machinery has been able to understand the nuances of Prerna and are they able to implement Prerna the way that we as an organization envisaged”.*

*“In that way it starts with motivation to get children excited about schooling. Not necessarily learning. And that will lead into a better class participation, which will then get them to start*

*looking at structured practice. Which leads to a kind of, ideally we want to nurture the ability or get the kids to take ownership of their learning”.*

*“So now coming back to this what is the minimum that is required is probably for us motivation is at the core. That can be easily achieved by what we call a pat on the back or kind words to a child or at a minimum, our transaction with the child has to reflect that there is this aspect of motivation within”.*

#### Field Staff

*“Because government school students need motivation. Because all teachers busy in teaching work. But we implementing star, its motivating more”*

*“And change education system”*

*“Writing, their handwriting system”*

#### Teachers

*“To improve learning levels of children”*

*“Creativity. To improve creativity in children”*

*“She’s saying she will tell that child to read and do well, through that we’ll try to motivate the child to get a star” [As translated by interpreter].*

*“Translator- She’s saying the children are not aware of the foundation skills. there are 3 kinds of children- one is above average, below average and average category. So for below average and average this is helpful because by doing all this they are getting foundational skills. And if they know foundational skills they can achieve anything beyond that” [As translated by interpreter].*

#### Monitoring and Evaluation Staff:

*“Respondent- 4 basic steps. First you are trying to motivate the child. To come to school, attend regularly, participate in the class, be an active user in the class”.*

Vibha Senior Management:

*“The medium-term objective is that children come to school, they are giving children a reason to come to school. Once they are in school, what happens next is are they engaged, right?”*

Vibha Senior Management:

*“Interviewer- I was trying to get a sense whether its part of the structure of the program to improve learning outcomes and measure them. Or is that a secondary goal?”*

*Respondent- “No, that is a primary goal and I was telling you on the call. Right now, as they’re doing the statewide implementation, what they would be measuring is, are we deploying everything we said. The model itself, the validity of the model was already ratified by measuring those learning and writing levels. So what they’re saying is, we know it works, but is this being deployed correctly and effectively across the state... Measuring reading and writing levels is really primary to measuring the success of the model”.*

(iii) Analysis 3: Print material definitions (training manual/website)

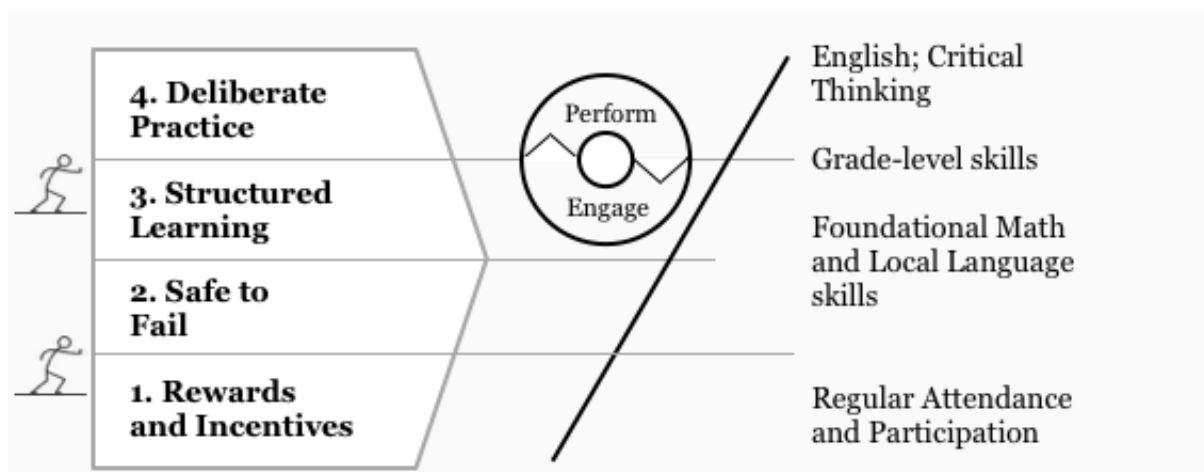
The Prerna Training manual 2018-2019 lays out the objectives of Prerna as an introduction to the program. These are outlined below:

### Objectives of Prerana Programme

The following objectives have been formulated to help students and Teachers:

- To motivate students and teachers
- To encourage structured learning in the students' learning process.
- Strengthen Continuous Comprehensive Evaluation(CCE) in the learning process
- To use Practice book, Visual and Tangible progress report and Prerana Club information/feedback book to strengthen Continuous Comprehensive Evaluation(CCE)
- To improve the learning quality of all students of the class by adopting peer learning methodology
- Inculcating leadership qualities and a sense of responsibility among students
- To show the learning progress of every student through Learning Map
- To increase student attendance and participation by giving stars
- Motivate each student by giving Regular Practice award
- Review progress and documentation with the help of Prerana App(APT)

Similarly, publically available material on Sikshana Foundation's website outlines the Prerna model in the following four-step approach:



#### (iv) Combining analyses:

Based on the Theory of Change exercise, the interview response analysis, and print material available regarding the Prerna model, the analyses shows that there is a wide variety of

responses regarding the objective of the model, both within and outside the organization and both structurally as well as topically. For example, if insights from Sikshana Senior Staff is taken to be the truest definition of the model's objective for the organization, the other data in this analysis may be compared to this as a benchmark to see the difference between senior management's understanding and actual perception of stakeholders.

In addition to this, we can see that some ideas put forward by senior management such as "motivation gets children excited about schooling and not necessarily learning" is in direct contrast with some responses put forward during the theory of change exercise and the interviews. Responses such as "improving learning levels" or "increasing grade-level competencies" is specified in the responses, but not exactly emphasized by senior management.

Based on the above information, it is clear that although the concept of motivation may be mentioned frequently, the sub-objectives beyond this are wide ranging amongst the stakeholders.

*Benchmarking:*

The following quotes based on interview analysis from senior staff members at Sikshana are outlined below:

Quote 1 from Sikshana Senior Staff:

*"In that way it starts with motivation to get children excited about schooling. Not necessarily learning. And that will lead into a better class participation, which will then get them to start looking at structured practice. Which leads to a kind of, ideally we want to nurture the ability or get the kids to take ownership of their learning"*

Quote 2 from Sikshana Senior Staff:

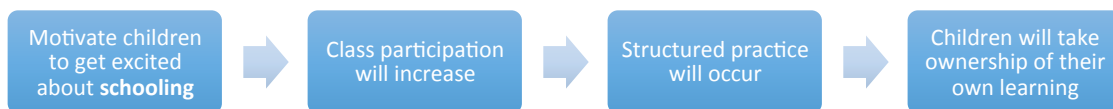
*"...why I would rather still keep our eventual goal of learning level, or ability to learn, that is a very high end goal. A child acquiring that ability to learn will set them off for the future. They don't even need school at that point technically. They can go and acquire as long as*

*that thing is there in them. That we may never achieve in our lifetime. But we'll still keep it there. But to do that, we might not do a direct activity. Because before that there are so many others.*

*But where I would want the whole team, and whole ecosystem. When you look at that, anything that we do, should be in relation to that. Maybe not addressing that in this point in time, it may be addressed later. But never lose sight of it. Otherwise then whatever activities we start defining, will kind of immediately answer that intermediate goal we might set, trying to have clear linkages”.*

Both excerpt shed light on the approach that senior management has to understanding or explaining the objective of the model.

Structurally, quote 1 can be explained in the following way:



This linear progression in terms of what Sikshana senior staff wants to happen is a crucial part of messaging the objective of the model. For example, specific words such as “...getting excited about schooling” (as opposed to learning) are important to clarify what the program is intending to do.

Building on this, the second quote discusses the importance of including learning levels although motivation is crucial to get children excited about school and not learning. This is a complex but important nuance, as the understanding of it changes the expectation from the model.

Taking these two quotes, that may be taken as the benchmark for the objectives of the model, and overlaying them with the existing Theory of Change can provide a comprehensive picture of what the model is trying to achieve.

Given below is the original Theory of Change for Sikshana.



### Sikshana Foundation Theory of Change

	<b>Vision:</b> An effective and locally empowered public school system in India			
<b>Impact</b>	<b>Mission:</b> <ul style="list-style-type: none"> <li>Improve the learning ability of every student in the public education system by creating and adopting a cost effective and easy to implement model (method, systems, and techniques)—and put it into practice with quantitative targets and time schedules.</li> <li>Work in collaboration with and handover the Sikshana model to the relevant government system (local, state or central)</li> <li>Use a data-driven approach to provide relevant follow-up, and transparently communicate results to encourage accountability across the system</li> <li>Improve perceptions about the effectiveness of the public education system</li> </ul>			
	<b>Priorities</b>	<b>Improve the learning ability of students</b>	<b>Improve learning ecosystem in schools</b>	<b>Transition to Government</b>
<b>Outcomes</b>	<ol style="list-style-type: none"> <li>Students receive well-rounded education</li> <li>Students demonstrate grade level competencies in the state and national assessment</li> <li>Personalized learning environment for every student</li> <li>Students are motivated to drive their own learning</li> <li>Students can make informed life-decisions</li> </ol>	<ol style="list-style-type: none"> <li>All stakeholders understand role of motivation in learning and can take data driven decisions for improving the school ecosystem</li> <li>Every student is accepted and feels happy and secure due to the welcoming environment in school</li> <li>Stakeholder sense of ownership and pride in the school increases</li> </ol>	<ol style="list-style-type: none"> <li>Government funds Sikshana model</li> <li>Government is accountable for implementation of Sikshana model</li> <li>Department can make data driven decisions for improving the public school system</li> <li>Sikshana's role decreases to supporting government run the program</li> </ol>	<ol style="list-style-type: none"> <li>Government, teachers and community take pride in the Public Education System</li> <li>Positive media coverage of government schools</li> <li>Active enrolment into and fewer students leaving government schools</li> </ol>
<b>Outputs</b>	<ol style="list-style-type: none"> <li>Students receive motivational incentives and put in effort to utilize the provided inputs and beyond</li> <li>Students at risk get required resource and help</li> <li>Students create and present projects which showcases their STEM, ICT and 21<sup>st</sup> century skills</li> <li>Students are engaged in sports and co-curricular activities regularly</li> <li>Teachers take lead in school activities and use data to help students learn better</li> <li>Student level effort and learning outcome data available to students, parents and teachers</li> </ol>	<ol style="list-style-type: none"> <li>Stake holders use motivational inputs provided to engage students in learning</li> <li>Increased stakeholder engagement in school activities</li> <li>Student and School level effort and learning outcome data available</li> </ol>	<ol style="list-style-type: none"> <li>Sikshana intervention and staff is prepared for transition</li> <li>Increased understanding of government system is developed within the organization</li> <li>Greater number of government champions across levels are created</li> <li>Evidence base for the success of Sikshana model is created through external evaluations</li> <li>Increased engagement of community stakeholders (alumni, panchayat, SDMC) with schools</li> </ol>	<ol style="list-style-type: none"> <li>Data for various stakeholders to support better understanding of student performance in government schools is packaged and disseminated</li> <li>Government officials in the education sector are recognized and awarded</li> <li>Brand ambassadors for government schools are developed</li> <li>Media relations are developed in a structured way</li> </ol>
<b>Activities</b>	<ol style="list-style-type: none"> <li>Conduct motivational program Prerana in schools</li> <li>Create mechanisms to address the specific needs of students at risk</li> <li>Create opportunities for students to acquire STEM, ICT and 21<sup>st</sup> Century Skills</li> <li>Structured sports and co-curricular activities</li> <li>Conduct data management and leadership training programs for teachers</li> <li>Use digital tools to manage student level learning</li> </ol>	<ol style="list-style-type: none"> <li>Conduct Sikshana interventions in schools</li> <li>Conduct stakeholder engagement programs within and outside schools</li> <li>Use digital tools to monitor and analyze implementation of the programs in schools</li> </ol>	<ol style="list-style-type: none"> <li>Account for transition plan in daily processes and organizational set up</li> <li>Conduct government liaison programs</li> <li>Conduct external evaluations</li> <li>Conduct community liaison programs</li> </ol>	<ol style="list-style-type: none"> <li>Showcase excellence in government schools</li> <li>Recognize government school students exemplary performance</li> <li>Acknowledge teachers and administrators efforts in improving the public school system</li> <li>Raise profile of and facilitate recognition of government schools in the community through brand development</li> </ol>

*It may be noted that during the interview, senior management at Sikshana specified that this version of the Theory of Change was specifically made for a donor, and therefore may not accurately represent the organization's Theory of Change.*

Focusing specifically on the mission and the buckets for priorities, we can see the mention of increasing learning levels, the learning ecosystem in schools, transitioning to the government and changing the perception of government schools in the highlighted boxes.

Ideally, the theory of change would need to incorporate the same linear chain of events as outlined by the senior staff. Section 4 will elaborate on this further in conjunction with other parameters of this analysis.

**(b) Why has Prerna been successful?**

This question aims to address what are the key factors that in the opinion of the interview respondents and stakeholders, have led to the success of the Prerna model. Upon identifying these, it may be helpful to learn from specific points of success in order to help other government partnerships replicate these successes as closely to the intended Prerna model as possible.

**(i) Analysis 1: Interviews and Theory of Change session**

Based on the interviews and responses during the Theory of Change session, key words from respondents have been presented in a frequency word cloud below.



As the responses were succinct in nature, the word cloud represents a larger font type for a higher frequency. Therefore, 'Simple' and 'Cost effective' were most frequently used to describe why Prerna has been successful and terms mentioned not more than once were 'Adaptable', 'Measurable', 'High ROI' etc.

(ii) Analysis 2: Interviews with Vibha Staff and government officials:

Interviews with staff from Vibha specifically were useful in shedding light on themes that were not explored in interviews or the Theory of Change session with other respondents. Specifically, two themes were touched upon when respondents were asked why Sikshana scaled up very quickly from a small partnership in a few districts to a state-wide partnership:

Quote 1:

*“First, this is my observation. I will not say I’m totally right. I may be wrong. Probably they saw the potential in Prasanna. Apart from government work, he was helping with a lot of work that they were assigning to him. All the data analysis, whatever is happening in the education department. Probably they thought he can do something for the entire state”.*

Quote 2:

*“It happened in Karnataka, because Karnataka is a state in India that is very progressive. Let me tell you very honestly. They could understand. At the government level and all. They could understand the model very well. At the same time Prasanna, as a lead of the organization, he put a lot of effort in making the model scalable. Conceptually and financially”*

Quote 3: Government official:

*“The only outcome we have seen, the most important is the drop-outs of the school. It has totally decreased the drop-outs from the school. We have taken the policy of, if a child is not going to school for 7 days, that child is considered as an out of school child. This has been decreased. They wanted to collect as many stars as they need. This has given healthy competition between students and they very much want to come to school”.*

*“...The non-academic is if they come to school clean and they also whatever that is being to keep the school premises clean. All this will be included in non-academic”.*

*“...But this program is child-centered. Child is very important and the child will be the person who will take up the initiative of implementing the program. Because of the child the program can be taken up. If the child was not interested, this program would have ended”*

Quote 4: Vibha Senior Staff

*“Number 1 is government buy-in. That needs to happen. Earlier we were doing things on our own. Active buy-in. See we were thinking government gives us permission. We don't need just permission. We need active participation. If government gives money, we need ownership. They're accountable. Number 2- Sikshana needs to engage with the local partner for 1-2 years. At least 2 years I believe. So that the nuances of the program, what gets talked about in the training modules and what is the significance of each and every component. Now at the district level, in the school level: effective distribution of the material, regular monitoring, measuring of are they being used, this is the kind of data you are getting. Effective use of those materials needs to be monitored and measured. Once these measurements are done, the primary goal measurements need to happen”.*

(iii) Material review: Interview with Government official

Based on a pre-recorded interview with a government official, the Karnataka government decided to scale-up Prerna operations from 2 districts to all districts because of 3 key reasons: the partner organization should be willing to take on 50% of the responsibility either financially or in terms of implementation, the program should be scalable and the implementation cost should be very low. Sikshana's Prerna model met all of these criteria and therefore was able to meet some basic criteria to allow for state-wide partnerships.

### **(c) What is motivated behavior?**

This question was asked to participants, in order to get a sense of what kind of outcomes the program intends to see in children. Assuming that increasing motivation in children is one of the key goals of the programs, the question selected this one goal and tried to break down what kind of outcomes are desirable of this goal.

In addition to this, motivation in itself is a difficult concept to encapsulate when it comes to providing tangible examples of activities that can be done in order to achieve this or how the success of motivation can be observed and measured. This question aims to explore different definitions by stakeholders so that a common definition may be made that could be iterated, solidified and adopted by the organization.

### Analysis: Theory of Change and Interview Responses

During the theory of change exercise, respondents were asked to list down the behaviours that a motivated child displays. The responses are reproduced below:

<b>What behaviours does a motivated child show?</b>		
<b>Sr. No</b>	<b>Response</b>	<b>% of Responses</b>
1	Participation	22%
2	Attendance	8%
3	Regular Homework	8%
4	Asks Questions	6%
5	Happy	6%
6	Disciplined	6%
7	Cleanliness	6%
8	Academic ability	6%
9	Supportive	6%
10	Ownership	3%
11	Shares	3%
12	Classroom Culture	3%
13	Collaboration	3%
14	Curiosity	3%
15	Eagerness To Learn	3%
16	Helpful	3%
17	Curiosity	3%
18	Effort	3%
19	Competitive	3%
20	Initiative	3%
<i>Total of 36 key responses</i>		

‘Participation’ received the highest number of mentions with ‘Attendance’ at the next frequency. The remainder of the responses broadly varied.

An interesting finding is that the 6% of responses highlighted in grey, that mention academic ability are responses provided by 2 teachers. As they are the last-mile implementers of the model, their perspectives seem to be different from other stakeholders and different from the objectives of the program laid out in Section (a).

(d) How do we know that Prerna is successful?

A recurring theme during interviews was the discussion regarding how the team knew about the success of the Prerna model.

(i) Analysis 1: Interviews with Vibha Staff and Government Officials:

The following are excerpts from interviews with senior Vibha Staff and government officials:

Quote 1: Government Officials

*“Interviewer- For example, you’re saying because of the program there have been these positive outcomes. I’m wondering if there’s some way in which the government department knows this. Is there some measurement of outcomes or observation on the field?”*

*Respondent- We have created a dashboard. Children will be entered, it might be from the teachers or officials that are visiting. On the basis of that. We have not taken any study. Now we have to take up a study. It has been implemented, it is the 2<sup>nd</sup> year. No study has been taken, but because of the progress and the opinion of the children, teacher, HM, district officials and everything, we have implemented this”*

Quote 2: Senior Vibha Staff

*“Then I heard a lot of anecdotal stories about children who drop out of the school system, being back in the school system because of their mentors. Those things, Prerna mentors have played a big role in bringing them back”*

Quote 3: Senior Vibha Staff

*“For example, someone in 5<sup>th</sup> grade, are they reading at 4<sup>th</sup> grade level. You would see 30%-50% depending on some schools. Once they finish the study, then they should be reading and writing at 5<sup>th</sup> grade level. At the beginning they should be writing at 4<sup>th</sup> grade level and then 5<sup>th</sup> grade level. Now you should see a big jump. In some cases a big jump and in some cases a marginal jump. That validates that the levels are increasing. In some cases rapidly and in some cases marginally.*

*Is that what you’re seeing in the data? Of course you need data to prove this. This data is there in bits and pieces. Of course I’d like Sikshana to provide you with more comprehensive*

*data to prove this point. Because this is really a critical point. We saw at Vibha, we saw data in those clusters of schools. We saw that kind of data that convinced us to move forward”*

Quote 4: Senior Vibha Staff:

*“After Sikshana started some more activities pedagogy based. Where it was very obvious where the children were participating, through workbook. And learning map indicated how they were moving from one level to another higher level. That’s the difference I could see when I used to visit the project”*

The above excerpts from interviews discuss how Prerna’s success according to each individual is determined anecdotally by observation or based on discussion with stakeholders directly involved, such as teachers. However, perhaps a consolidated scientific study on the relationship between processes in Prerna programs and outcomes perhaps needs to be done.

#### (ii) Analysis 2: Desk Review of Reports

Two reports were made available for this analysis- the Ernst and Young 2013 report in which a student assessment was done in 3 taluks of Karnataka and a brief internal measurement by Sikshana done in 2016-2017. Both reports measure the effect of Prerna on learning levels using the ASER tool. The reports indicate an increase in learning outcomes, while comparing the results in the Prerna schools as compared to the state level ASER Karnataka report. However, this methodology may require some further refinement if direct causality to Prerna is to be attributed. The following may need to be considered before attributing the increase in learning levels to Prerna:

- Methodology for testing: When using the ASER tool to diagnose learning levels, similar ASER methodology may also need to be followed to ensure comparability. ASER is a household based survey and therefore the state level data presented in the report provides learning outcomes for children tested in homes, government and private schools. The Prerna measurement would have been done for children only in government schools and so there may be a selection bias.

- Structure of study: In order to attribute the increase in learning levels to Prerna, some kind of before/after or treatment/control method may need to be employed. For example, if a baseline of children's learning levels before Prerna and then another measurement after Prerna was implemented was done, with the same sample, one may determine that with no other changes, the increase in learning levels was because of Prerna. However, a one-time measurement may not be able to adequately determine this because there could be several other reasons why there are higher learning levels in Prerna schools.

## Constructing a sample Theory of Change

Based on the findings and analysis in the previous section, this section aims to provide linkages between the objectives, activities/processes and outcomes of the Prerna model. In order to build a robust model that can be easily implemented by other stakeholders who wish to replicate the model, clear linkages between each of these aspects may be necessary for other partners to understand the model. This would be beneficial not only internally to strengthen operations and increase understanding of the model but also for other organizations to replicate a scale-up.

Beginning from the objectives of the program, perhaps a streamlined objective that combines elements from leadership and existing staff can be accounted for, in order to create a comprehensive objective, understood in the same manner by everyone in the organization. Overlaying this objective with activities that are constructed to achieve it and are further linked to outcomes, would provide a comprehensive theory of change.

The second half of the theory of change session Beginning with a quote from senior Sikshana staff when reflecting on the Theory of Change session:

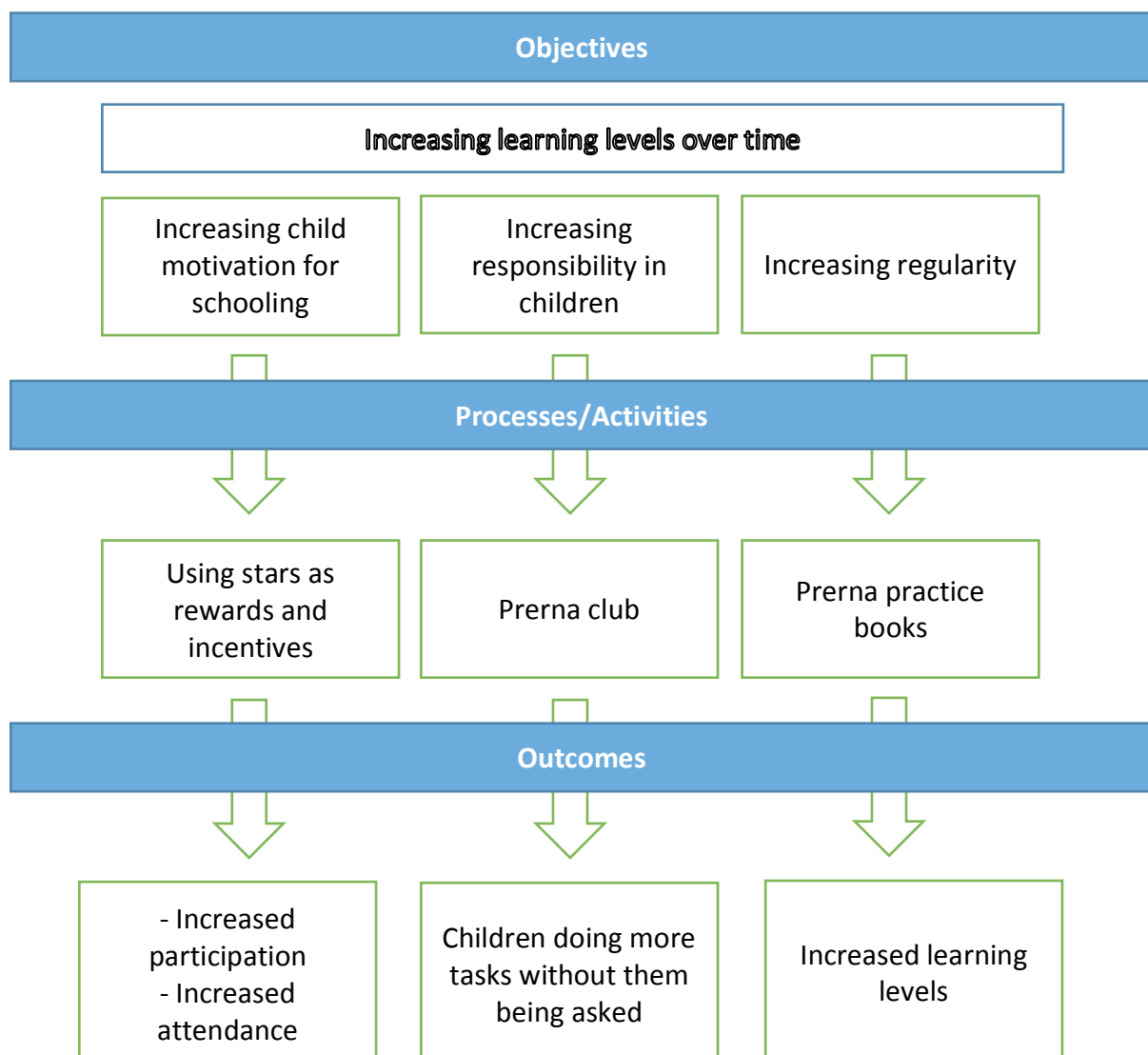
*“So processes when we looked at all the processes, what stood out was heavily invested towards learning levels, rather than motivation. So then my thought process was, eventually what is motivation. The bi-product of motivation is learning levels. Or learning outcomes.*



Eventually if a child is going to be motivated, when you define learning levels its not just about academics, it's a holistic thing. It can be related at the end of the day, they're trying to do better than what they did yesterday. And maybe our processes are geared towards measuring motivation. And coming to the last point about the outcomes. When we talked about the outcomes, it boiled down to looking at motivation rather than learning levels. So we said okay motivation is there, as a bi-product of motivation there's learning levels so we are trying to measure the learning levels. And not so much measuring, or focusing on what means motivation. I felt that was the missing link in the entire piece"

Based on the above excerpt and the analyses in the previous sections, we can see that presently there may be a disconnect between the objectives, the processes and the desired outcomes, in the given Theory of Change. Perhaps to refine this further, a sample theory of change may be devised in the following manner:

*Objective:*



Borrowing from the responses in the previous section regarding objectives, if a few key objectives are selected as an example, they would need to line up with the processes and activities for each objective and also be linked to the outcomes. A sample is provided below:

Though this is an over-simplistic representation of the linking of objectives, processes and outcomes, it provides a sample framework with which each category of the large heading needs to link with the next. In this way, a more detailed and refined theory of change can be built.

#### Measuring success

In addition to building a robust theory of change, the next stage would be to build a mechanism in which success of the program is measured. Based on interview analysis, the following methods of measuring the Prerna model are currently in place:

(i) The 'My Shaala' or 'My School' app: whether to be used internally by Sikshana or externally by the government system, the app that tracks the roll-out of Prerna. Examples of questions from the 'My School' for the month of June are- "Did you share Prerna videos with CRPs and other department officials". According to respondent remarks- "... the app is input related".

(ii) Discussions between Prerna field staff and government officials: Part of the role of the district project managers is to liaise with the government machinery and smooth out issues regarding Prerna roll-out and create a good rapport with the department. In the process, success stories play a large role in determining the successful roll-out of Prerna.

(iii) State-wide tracker: The state-wide tracker which is an OMR sheet that goes to schools every semester to track progress of the program. Information collected is child-wise. For example, it collects information regarding how many stars each child is receiving.

### Monitoring and measurement methods under development:

Based on interview discussion analysis, the above monitoring and measurement mechanisms are focused on tracking of logistics and inputs of the program. To quote respondent remarks- “Right now the questions I showed you on the checklist show very logistical questions. It’s something I want to go beyond logistics now. Stars are going to go now. Now I want to see the value added purpose. I want to go target that place”. Therefore, there is an intent to move beyond measuring inputs of Prerna, to measuring the actual product itself.

In addition to this, the team is also developing an adoption framework where schools can be classified to be “Prerna-okay” or otherwise. The framework is borrowed from an ICT model and considers three aspects- usage, frequency and sustainability. Buckets borrowed from the model, such as “emergent”, “applying” and “integration” can help segregate adoption stages that the school is in. As suggested by respondents- “So for example emergent I would say usage of stars. One of these things is, one or two of the following is happening. You’re giving either for attendance, either for hygiene, for sports or other activities. Applying it is that we’re doing it for everything the Prerna program is supposed to say. And then integration is applying is happening, but apart from that we’re also rewarding stars for completing workbooks or sitting in the peer learning session by yourself. Something more than what the stars are supposed to be”.

There is already an attempt to move from focusing on inputs to processes and outcomes. Given that the government model has only been running for a year, it may be useful to allow the new measurement systems to gather data and be further refined, before taking a call on further measurement processes. However, current and future measurement systems need to be placed within the larger program framework.

## Recommendations

The following recommendations may be useful for Sikshana Foundation to ensure a successful and robust scale-up to other states as well as strengthen its own operations.

### (a) Core Principles of Prerna:

Based on the activities conducted during this study, findings for core principles identified have been presented below. These findings are based on information bound by the study and serve as a starting point for the organization to carry forward refining the theory of change and activities to ensure a robust project structure. The core principles are wide-ranging in nature and ideally, for efficient implementation, these need to be clear, concise and consistent across the organization so that the program is understood and implemented in a uniform manner. The principles outlined below are some key points that came through from analysis:

#### *(i) Objective of Prerna:*

In the classroom:

1. Getting children excited about going to school and to take ownership of their learning
2. Improving learning levels of children
3. Improving creativity in children
4. Get children to participate in the classroom
5. Create a safe environment for children in the classroom
6. Provide children structure to learn from each other/peer-learning
7. Encouraging children to get into the habit of practicing

At a structural level:

1. To work alongside the government to create a systems change in education, where the first point of success is correct adoption of the model

#### *(ii) Why has Prerna been successful?*

For the model:

1. It is simple
2. It is cost-effective<sup>1</sup>
3. It is child-friendly and child-centered<sup>2</sup>

At an institutional/organizational level:

1. Effective partnership between organization leadership and government leadership
2. Complete government buy-in. Karnataka government adopted the program nationally because it met basic criteria for partnering with the state government

*(iii) What is motivated behavior?*

This section had a very wide variety of responses during analysis. Top responses have been reproduced below:

1. Increased participation in the classroom
2. Increased attendance

*(iv) How do we know if Prerna is successful*

1. Through stories from staff and others that interact with the program on the ground
2. M&E portals that measure inputs such as whether schools have received materials etc.
3. M&E portals that measure child-wise information such as how many stars each child is receiving

(b) Theory of change: Conduct an internal 'Theory of Change' mapping exercise to lay out objectives, processes and outcomes to ensure that clear linkages exist between each of these components.

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<sup>1</sup> 'Cost effectiveness' refers to the ability of the program to have high 'returns' with high scalability. For example, low cost of materials and inputs for a program, with a high increase in learning outcomes would make a program cost-effective and easily replicable/scalable

<sup>2</sup> 'Child centered' refers to the method of teaching and learning where the focus of the activity is the student and her needs, as opposed to the teacher being the primary focus of the teaching-learning process

(c) Messaging: Once a robust theory of change is in place, a mechanism in which key components of the model can be conveyed to other stakeholders may need to be worked on. A more streamlined messaging of what the Prerna model is, both internally and during trainings to ground-level staff may be helpful in putting forth clearer objectives.

(d) Strengthening training: The messaging would especially be important in an elaborate model in which the end user- the teachers- would need to clearly understand objectives. This may need to be honed in on, as Prerna follows a ‘train the trainer’ model, where the key message of the model is conveyed via layers of training through the government machinery. It may be helpful to strengthen the messaging links between the layers to ensure that all stakeholders understand the objective of Prerna in exactly the same way.

(e) Strong organizational leadership and government synergy: In order to replicate Sikshana as effectively as possible, simply putting in strong processes correctly that mirror those in the original model in Karnataka may not be enough to guarantee success of the program. A strong relationship with the government machinery that is led by an effective individual may be necessary.

(f) Conducting a baseline-endline study: In order to scientifically provide evidence for the success of the Prerna model, perhaps a study program evaluation can be conducted to measure the success of the model with a baseline-endline study.

## **Study Limitations**

- (a) The scope of this study was to answer certain key questions regarding the implementation and scale-up of the Prerna model. This study helps to underscore some of the key variables that are the core principles of the model. These factors define the model and could be used as common principles to be scaled-up in other States. However, a full evaluation of all the components of the model are required to determine the success of the model in other States. This study can state the factors that are important to define the model.

(b) Very limited school visits were conducted and therefore most of the data collected is based on interviews with staff and document review. Direct observational information on the ground was not included in the report. As a result, there is no information regarding conversation with students as well. A full more detailed data collection using school observation tools are required to further this study.

(c) The recommendations provided in the report provide scope for more discussions and program reviews, and may not provide prescriptive solutions that would immediately be able to be implemented for further scale-up.

## Appendix- Questionnaires

This section includes questionnaires that were administered with respondents during this exercise. Please note that interview formats were free-flowing to allow respondents to describe components in as much detail as possible. While the broad interview structure was followed, some additional questions were asked as was found suitable. In some cases, due to time constraints, some questions were omitted from the interviews.



## Questionnaires for Sikshana Program Evaluation

### Questionnaire for leadership:

Name:

Role/Position:

No. of years spent at Sikshana:

Q. What is the history of the Prerna model and how did the model develop over time? From your understanding, what are the key components of the model?

Q. What was the gap/problem in education in India that the Prerna model was trying to address when it started?

Q. What were the specific changes made to the model? Were different iterations experimented with? Could you provide a detailed timeline of these changes?

Q. Has the success of the Prerna model been defined and measured? If so, how?

Q. Have you faced challenges with the Prerna model? If so, what were they? What are some possible shortcomings?

Q. What is the organization structure at Sikshana? How many employees work full time in the head office and how many field staff are there?

Q. Are there professional development / trainings provided? On what? Who provides training? Are there mentoring or support systems?

Q. Have you faced any leadership challenges in implementing the Prerna model? If so, what were they?

Q. Are there short-term and long-term strategies that build towards the mission? Can you please describe?

Q. How does the Prerna model fit in this current organization strategy?

Q. Do you visit Prerna classrooms? If so, how often?

Q. What is the total cost of implementing the Prerna model? What is the cost of implementing the Prerna model per student?

Q. What is the scale of the Prerna model? In how many schools, districts in Karnataka does the model operate it? How many children are reached annually?

Q. Could you describe Sikshana Foundation's relationship with Vibha? Would you say this partnership has been successful over the years? If yes, why?

Q. How do large organizational decisions get taken at Sikshana Foundation? What is the process?

Q. Do you believe that the Prerna model is the most effective approach in improving learning outcomes? If so, why?

Common Question- What are the basic elements required to make a Prerna classroom? (Describe various elements including physical elements such as teaching-learning material, manpower elements such as the teacher and her/his experiences etc.)

Common Question- What exactly do you think has made the Prerna model increase children's learning levels? Refer to specific examples.

**Questionnaire for teachers:**

Name:

Role/Position:

No. of years spent at Sikshana:

Q. Describe a day in the life of a Prerna classroom teacher. (please be as detailed as possible, classroom preparation or proceedings, what activities you and the students do, homework, etc.)

Q. Are there benefits to using the Prerna model? If so, what are the benefits? Do you think it is important to use the Prerna model in classrooms? If so, why?

Q. Are there ways in which the Prerna model can be improved? If so, in what areas?

Q. Do you think there are ways in which you can conduct your classes better? If so, how? (Refer to specific examples such as better training, or teaching material etc.)

Q. Describe your training workshop/procedure to become a Prerna teacher.

Q. How would you describe to another teacher, what to do in order to conduct a Prerna classroom?

Common Question- What are the basic elements required to make a Prerna classroom? (Describe various elements including physical elements such as teaching-learning material, manpower elements such as the teacher and her/his experiences etc.)

Common Question- What exactly do you think has made the Prerna model increase children's learning levels? Refer to specific examples.

**Questionnaire for technical persons (program managers/monitoring and evaluation teams/tech team:**

Name:

Role/Position:

No. of years spent at Sikshana:

Q. Describe your role at Sikshana.

Q. What would you say are the essential pieces of the Prerna model? Do you think the model is important? In what ways? Why do you think the Prerna model is important?

Q. Do you make visits to Prerna classrooms? If so, how often?

Q. Do you believe that the Prerna model is the most effective approach in improving learning outcomes? If so, why?

Q. Explain the process that goes into making sure the Prerna model is implemented in classrooms (recruitment, training etc.) (operations)

Q. Were there challenges in implementing the Prerna model? If so, what were they? (operations)

Q. What advice would you give a project manager of Prerna who is just beginning Prerna operations? What did you learn in the course of your job that you can now advise them about? (operations)

Q. Are there measurement/monitoring/evaluation systems put in place to gauge the success of the Prerna model? (M&E) If so can you share some details?

Q. When did the M&E team begin operations? What were some of the goals?

Q. Describe the end-to-end process for how data on the program is collected, stored, analyzed and disseminated. (M&E)

Common Question- What are the basic elements required to make a Prerna classroom? (Describe various elements including physical elements such as teaching-learning material, manpower elements such as the teacher and her/his experiences etc.)

Common Question- What exactly do you think has made the Prerna model increase children's learning levels? Refer to specific examples.

**Questionnaire for government officials:**

Name:

Role/Position:

No. of years spent at Sikshana:

Q. How did you come to know about Prerna/Sikshana?

Q. Why did you decide to adopt the Prerna model in government classrooms?

Q. What inputs are required from the government to ensure this partnership?

Q. Are there specific components of the model that really appeal to you? If so, which ones? Why?

Q. Do you plan to sustain this partnership in the future?

Q. Could you describe based on your experience and understanding how a Prerna classroom works?

Common Question- What exactly do you think has made the Prerna model increase children's learning levels? Refer to specific examples.

**Questionnaire for Vibha:**

Name:

Role/Position:

No. of years spent at Sikshana:

Q. What is has Vibha's role in Sikshana's programs been?

Q. How do you specifically support Sikshana's operations in your work?

Q. What led to the state-wide scale-up of the Prerna model?