Proposal for Implementation
of
Foundational Literacy & Numeracy
and
STEM
Academic Year 2023-24

Sikshana Foundation was started in 2003 by a small group of professionals with a common cause that is, improving the state of public education in the country. This small group has since been strengthened by the induction of other like-minded persons and the varied and diverse expertise they have brought with them. Since inception Sikshana has been working on developing Scalable, Sustainable & replicable Models for enhancing the learning levels delivered by Govt. Schools of India.

Over the last 17 years Sikshana have been working on creating mechanisms to improve the Quality of Education delivered by the Public Schools System in India. The focus has been to use motivation as a catalyst to maximize the usage of the existing resources in the ecosystem

Our Vision:
Evolve sustainable & replicable models for an effective & decentralized Govt. school system.

Our Three-Fold Mission:
1. Synergize with the Government at all levels
2. Share and transfer knowledge
3. Design and implement student centric learning experiences for the Govt. Schools

Our Impact Since 2020:

Implementation of Sikshana@Home across Karnataka, Maharashtra, Andhra Pradesh, Telangana, Tamil Nadu, Gujarat and Puducherry reaching out to 2.8million government school students.

20,00,000 children were given exposure to best practices in WASH which was basically need of an hour through project-based learning in Karnataka, Maharashtra, Andhra Pradesh, Telangana and Puducherry.

47,00,000 Learning inputs were distributed to children at their door step.

1227 Girls Empowered through Sikshana's Girl Empowerment Program

Prerana: Sikshana's flagship program Prerana which has shown promising results in improving engagement of the students in learning has been adopted by the Department of Education (DoE), Government of Karnataka (GoK) across 48,000 plus government schools in 2017-18 impacting close to 3 million students. GoK has renewed the partnership with Sikshana Foundation for the next three years until 2025.

Technology: Sikshana with its core technology expertise has designed monitoring apps for effective system governance for the DoE, GoK. As part of the Prerana program knowledge transfer to the department, an android based app again called Prerana has been deployed at the State Data Center and it helps in quick data gathering and analysis from schools across the state. Provided technology support to the DoE, GoK in conducting the Census based School Assessment Survey (CSAS) to measure individual child's learning level from grade 4 through 10 across all government managed and aided schools in the state. This assessment, the largest of its kind, covered over 4.5 million students and helped in creating school, block, district level analytics which helped the department to launch various programs to address the gaps. The foundation was also recognized by the state as a technology partner of the Department of Education.

Problem Statement:

Foundational education (Primary and Higher Primary) bears the highest significance owing to the fact that about 80% of cognitive development of a child happens during those years. And attainment of Foundational Literacy & Numeracy (FLN) competencies in this period is a necessary prerequisite for the child's progression into middle and high school. Many state and national level surveys have indicated a big gap in expectation vs reality and this fact has been upheld in the NEP2020 as well.

Some of the key factors leading to lower FLN levels according to us are lack of:

1. Robust reinforcement of FLN concepts across primary and higher primary schooling years
2. Pedagogical approach that inculcates the habit of structured practice
3. Ability to cater to students at different levels simultaneously
4. Effective transition of learners across grades
5. Robust process which integrates the stakeholders and resources
6. Adequate tech-enabled solutions to monitor and evaluate

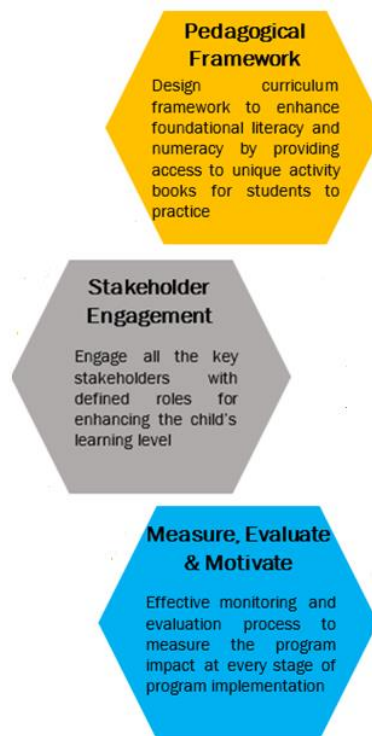This is compounded by the closure of schools due to the pandemic.

Solution:

With close to two decades of experience working closely with the students enrolled in government schools through *Prerana*, we have been able to identify the specific challenges that prevent them from understanding FLN concepts. Sikshana is proposing to implement a three-pronged approach with a focus on improving foundation literacy and numeracy among the students of Grades IV and VII in the Sedam educational block, Kalburgi District, Karnataka.

Highlights of the proposed solution:

- While NIPUN Bharath calls the nation to get into mission mode regarding FLN, we need the schools to get into mission mode with very specific tasks. With this in mind, our solution proposes to call out one specific FLN competency each month and have the entire school ecosystem focus on achieving the desired outcome.

- Normal remedial interventions tend to run for a short period of time in a year. Our solution keeps the focus on for the entire duration of the academic year.

- Exposure to Science concepts through an activity approach in enhancing the scientific temperament among the students

Three-pronged approach:

Pedagogy:

To ensure every child accomplishes FLN while sailing through the regular grade level curriculum, and with or without schools functioning regularly, a flexible and robust pedagogy needs to be formulated. The key elements are:

1. The inputs
2. The methodology of engaging with the inputs
3. Reinforcing learning over a longer period of time

1. **The inputs:** The student workbooks will be designed in the form of activity books that provide engagement at multi-levels and in a variety of tasks. Differentiated learning opportunities will be provided to all kinds of learners; beginners to those who are already comfortable with the competency will have takeaways suitable to their needs. While the beginners take learning at their own pace, the others challenge themselves in terms of faster completion, or learning additional skills and engaging in peer help.

2. **The methodology of engaging with the inputs:**

Inputs	Students	Teachers	Peers	Parents
Competency of the month	Work on one FLN competency for the month	Sets the level-appropriate expectations for each child and devotes more support to the lower-level competency students	Proficient and advanced level students will provide the necessary support for the beginning level students	Act on the instruction given by the teachers
		Engage more with the beginners and assign tasks for the proficient and advanced-level students		Ensure beyond schooling support to achieve the required competencies for the students through more practical exposure
Activity Books	Multi-level activity books	Guidelines on setting expectations	Guidelines on peer engagement	Guidelines for child engagement
		Assigning tasks		
		Offering support and feedback		
		Tracking a child's progress		
Feedback & Follow-up	Seek feedback and necessary support	Provide feedback and necessary support	Provide feedback and necessary support	Provide feedback and necessary support
	Receiving *competency stickers on attaining the competency	Provide the competency attainment stickers	Encourage to receive a competency sticker	Ensure the child receives the competency stickers and encourage

All children across the grades will work under the supervision of the teacher on one foundational competency per month so that the entire system focuses on getting all the children to achieve the required levels in that competency. As and when the children attain a particular level, they get to work towards acquiring higher cognitive levels.

3. **Reinforcing learning over a longer period of time:** The FLN concepts will be dealt with in 2 cycles every year. In the first cycle, there is engagement in learning FLN concepts, and in the second cycle, the concepts are reinforced through projects and activities that focus on the application of those concepts in order to maintain the continued engagement of the learners with the FLN competencies. This is further aimed at fine tune the skills and taking the learner beyond basics.

Stakeholder Engagement:

The role of stakeholders is key to the overall success of the proposed program. In the proposed structure all the key stakeholders have equal participation influencing the overall child's learning progress. Sikshana is setting

up a process by defining the roles of each stakeholder in building a conducive environment resulting in a positive transformation.

Students Readiness Program: Students are made part of the FLN mission by bringing awareness about the importance of the program and setting expectations about their roles. The students work towards their level-specific goals by leveraging peer support along with guidance from teachers and parents. The whole class gets into a mission mode by collectively taking an oath about not leaving anyone behind in FLN and getting into action via peer-learning practices

Teachers Readiness Program: A teacher is an important part of the mission and is the primary influencer in the classroom. Teacher readiness includes the teacher's understanding of the objectives, processes, and responsibilities. Teachers will be oriented to

- Facilitate learning in the classroom,
- Leverage "My Learning Journey Certificate" (issued to all children under the Prerana program from Govt of Karnataka) as a mechanism to track individual child's progress in acquiring FLN competencies and
- Provide remedial assistance as needed.

They will also be trained and provided tools to ensure active parental involvement in the mission.

Education Department Staff Readiness Program: The role of Cluster Resource Person (CRP) in tracking the learning process will be very critical for the success of the program. In addition to a set of processes, robust technology solutions will be given to the CRPs to track the cluster-level improvement of FLN among the students and school. Sikshana mentors will coordinate with the CRPs and Block Resource Persons (BRPs) to provide the necessary handholding on the tech solution and also extend support in tracking the student's progress at the cluster level and block level.

Parental Readiness Program: As it is evidenced that the child does acquire a variety of experiences through various activities from the people with the child cohabits, parental participation will further help them progress well in the overall learning journey. At the start of the program, the parents will be given an orientation on their role and responsibility in their child acquiring the FLN competencies. Towards this, they will be made aware of how to engage with their child with the activity book, participate in predefined activities with the child and keep track of the child's progress through the learning journey certificate. They will also be required to regularly participate in PTM to understand monthly competencies to undertake corresponding support to children at home through reading books, solving simple problems, playing games, singing, reciting rhymes and narrating stories, and appropriate use of digital devices to provide exposure to online digital resources and periodic visits to Gram Panchayat Library with the child.

School Development and Monitoring Committee (SDMC) Readiness Program: SDMC, a committee formed by the government which has been given the necessary power for governing the overall functioning of the school, will be effectively involved in the overall implementation of the program and monitor the progress by hosting monthly events on the defined competency, allowing children to showcase their work by involving community

members (*Panchayat Development Officer, Panchayat Members or older students*) to evaluate and motivate the child. Also, track the child's progress by reviewing "My Learning Journey Certificate" on a periodic basis and also involved in the peer learning process. One nominated FLN member from the SDMC committee will be involved in tracking the overall progress of the program.

Measure, Evaluate and Motivate:

Sikshana firmly believes that for a program to be effective, replicable, and sustainable, a strong M&E system is very essential. From the beginning, Sikshana has ensured that all its products and processes will have an M&E framework as part of the design itself. Unlike most other systems where only the eventual program output is measured, the focus here is on measuring the input, its usage by the stakeholders, and the resulting output. All these aspects and the outcomes along with the eventual impact is all considered within the framework.

Over the years Sikshana has been using a hybrid approach to monitoring, with digital devices or just plain paper (OMR) to gather data as appropriate. The tool itself is projected as a mechanism for the schools to share their best practices or success which in turn motivates the stakeholders to provide timely and reliable data.

- **Activity Level Monitoring**: Regular monitoring happens at the school level through Sikshana mentors by tracking utilization of the activity books, identifying the learning level and learning gaps, conducting teacher & parent meetings, and data analysis of baseline and endline assessments.

- **Progress Monitoring:** The Sikshana mentors review students' progress on a sample basis across the academic year to measure the year-on-year improvement.

- **Output Monitoring:** Pre-defined outputs for key program activities are measured periodically (Quarterly/Half yearly). Eg: Activity Book, Attendance improvement; Competencies development, etc....

School Level FLN Certificate: Motivation is the key factor that will result in an overall transformation of the system. Sikshana from its previous experience of motivating the students through incentive models has noticed significant improvement among the students both scholastic and co-scholastic. A similar approach will be followed in measuring and identifying schools on predefined parameters which could result in holistic development and recognize such schools by certifying them. Through our M&E structure, we will monitor school performance on improvement in FLN among the students on a bi-annual basis and scrutinize the data involving the committee to decide the best school and certify them as NIPUN School in alignment with the initiative of the Ministry of Education NIPUN Bharat (*Certificate from Sikshana*).

Program Outputs and Outcomes:

Section	Output	Outcome
Pedagogical Framework	Implementation of the pedagogical framework as planned, optimal usage of inputs, effective and regular feedback, and follow-up	Attainment of FLN competencies defined for the level
Stakeholder Engagement	Active participation of Students, teachers, administrators, parents, and community in the mission mode to ensure FLN attainment of the students.	Enhanced ownership of all the stakeholders in the mission
Measure, Evaluate and Motivate	Data flowing-in in at regular intervals of time and in the required format	Analysis of the data leads to effective decision-making by the stakeholders to achieve the objectives of the program.

Program Impact:

We intend to achieve an impact that every child moving out of primary and higher primary level is adept with FLN competencies.

Financials:

Location	Kalburgi, Karnataka
Total Project Budget	₹ 35,12,400
No. of Schools	105
No. of Children	10,000

Foundational Literacy & Numeracy and Science Activity Based Learning	Estimated Cost/year Amount	Description
Product Development and Practice Materials	₹ 11,20,000	Remidial support to students through printed modules supplied to children to practice to help them improve foundational literacy and numeracy
Stakeholder Training & Events	₹ 2,00,000	Program orientation with all the stakeholders and Block level event
Exams / Assessments	₹ 60,000	Baseline and Endline Assessment and Impact Survey
Community and Student Mentoring Cost	₹ 15,84,000	Team of mentors to help children, teachers, community and department to optimize on available resources and focus on achieving learning targets and conduct community awareness sessions
Total Student and Community Expenses	₹ 29,64,000	
Monitorng Cost	₹ 3,72,000	
Total Program Expenses	₹ 33,36,000	
Admin	₹ 1,76,400	-
Total Net Expenses	₹ 35,12,400	