Sikshana
Foundation
Love of Learning

ANNUAL REPORT - 2015-16
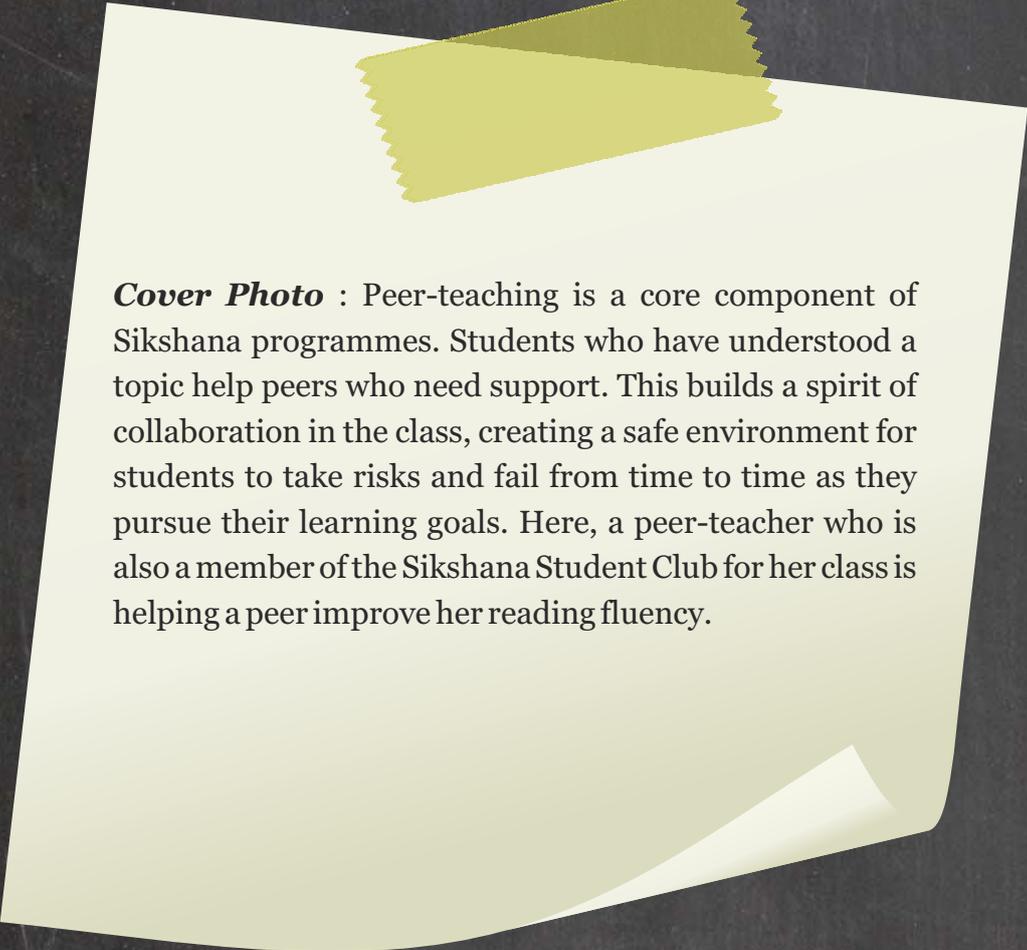
Cover Photo : Peer-teaching is a core component of Sikshana programmes. Students who have understood a topic help peers who need support. This builds a spirit of collaboration in the class, creating a safe environment for students to take risks and fail from time to time as they pursue their learning goals. Here, a peer-teacher who is also a member of the Sikshana Student Club for her class is helping a peer improve her reading fluency.

From the Leadership Team

We begin each year by reminding ourselves of the magnitude of the problem facing rural education –according to the latest Annual Status of Education Report, 71% of students in class 7 in rural Karnataka schools (public + private) are not able to perform basic class 3 arithmetic. The numbers are similarly concerning for Maharashtra (72%) and Andhra Pradesh and Telangana (52%).

At the end of each year, we take stock of how Sikshana-supported schools have done. In 2015-16, Sikshana Foundation was able to help students in class 7 of supported rural schools decrease the above failure rate by over 40 points to 30% in nearly 2,000 primary schools of Karnataka.This is a continuation of strong and encouraging performance in prior years.And it is certainly a testament not only to the dedication of the entire team but also to Sikshana's rather unique focus on student motivation as a way to drive improved learning outcomes.As a result of this focus on motivation, students are not only taking away foundational reading and math skills but also an interest in learning, and a confidence that they know how to acquire skills that might seem daunting at first.

Moreover, we also remind ourselves that Sikshana Foundation was set up with the mission of "evolving scalable and replicable models for an effective public school system". In other words, the truest successof Sikshana comes when we are able to influence the thinking and processes of the government.

In this sense, 2015-16 was one of our most successful years. Our programmes were reviewed by the Government of Karnataka.We have as a result been invited to an exciting partnership to scale our impact by transitioning Sikshana programmes to the government machinery over 3 years. The path to reach 50,000 government schools in Karnataka has never been clearer!

These exciting successes could simply not have happened without the gracious support of our corporate and individual partners, who have not only supported the delivery of interventions in schools but also the development of innovative programmes that allow us to reach ever-new heights. Thank you for 2015-16 and we look forward to working together in 2016-17!

Prashanth Prakash	*Prasanna Vadyar*	*Chalam Plachikkat*
Chairperson	C.E.O.	C.O.O.

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Sikshana presence: Karnataka Primary Schools

KILOMETRES
20 0 20 40 60 80 100

BOUNDARIES:
STATE...............................
DISTRICT...........................
TALUK...............................

HEADQUARTERS:
STATE............................... ★
DISTRICT........................... ●
TALUK............................... ●

☐ accelerator
☐ incubator

2,021
**government schools**

279,900
students

71%
29%

Maths

92%
64%

Kannada

■ Rural Avg.   ■ Sikshana
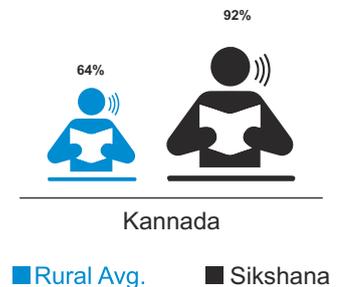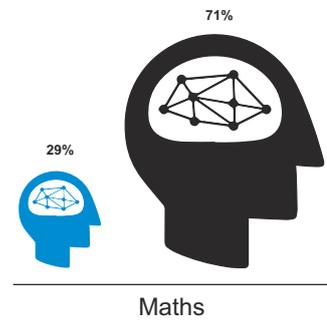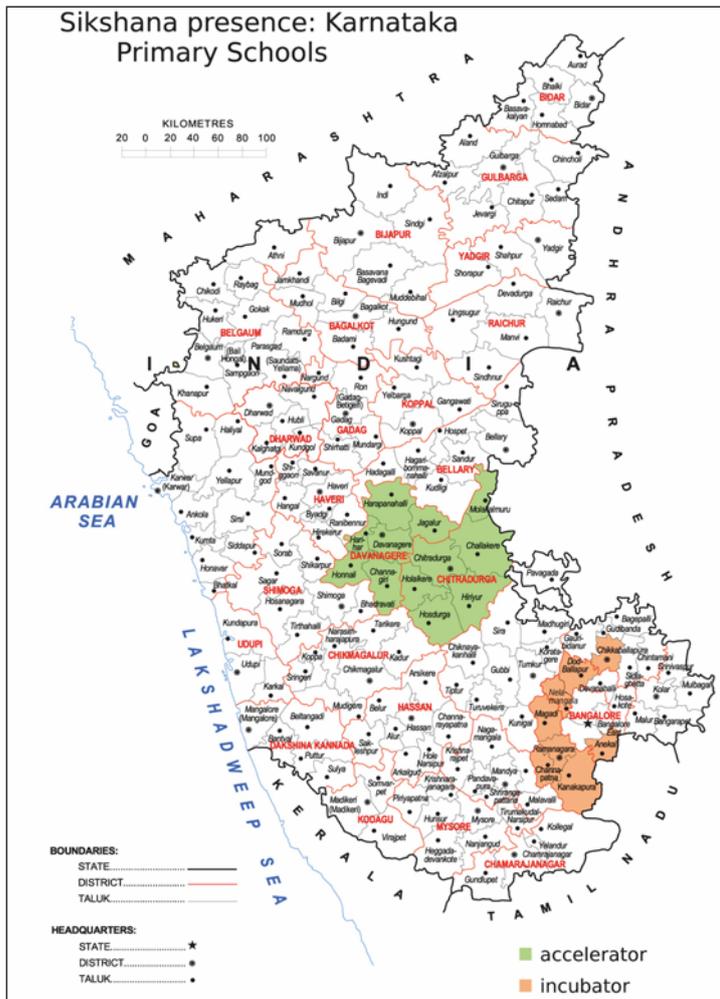
Sikshana quantifies its impact using the nationally-recognized ASER test. In 2015-16, 71% of students in class 7 in Sikshana supported schools achieved foundational math skills, as against 29% average for similar rural schools in Karnataka. That's a 40+ point increase in performance. Similarly, a ~30 point increase for seen in students able to read basic Kannada.

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2. Recognition and Success

Sikshana Foundation scaled its interventions to support over 2,000 schools in 2015-16. This attracted the attention of the Principal Secretary, i.e. the senior-most IAS officer responsible for Primary and Secondary Education in Karnataka. Shri Ajay Seth visited Sikshana-supported schools to understand how Sikshana partners with teachers and officials to deliver student-motivation programmes. The engagement served to convince him of the importance of student motivation and as a result, the 2016-17 budget for Karnataka includes a provision for the Education Department to invest in student motivation programmes.

Furthermore, Sikshana's approach of focusing on student motivation to drive improved learning outcomes gathered important recognition in 2015-16, with the Government of Karnataka inviting the organization to partner in two districts. This is a truly exciting opportunity which could provide the blueprint for rapid and sustainable expansion of impact.

Karnataka State Government recognized the importance of student motivation programmes and allocated budget for such programmes in 2016-17

Karnataka State Government invites Sikshana to partner in 2 districts

Programme Update

A number of public and private organizationsare working to improve student learning levelsthroughbetter pedagogical interventions.On the other hand, Sikshana Foundation has a relatively unique approach of focusing onmotivating students to engage in school and to take ownership for their own development. This approach is backed by success statistics (Section 1)from nearly 2,000 Sikshana-supported government schools in rural Karnataka, Maharashtra and Andhra Pradesh.

Sikshana's student motivation programmes progress in 4 steps as shown in the picture below.To sustain and grow impact in 2015-16, Sikshana continued to drive and strengtheninterventions in the 4 steps,while testing new intervention ideas.
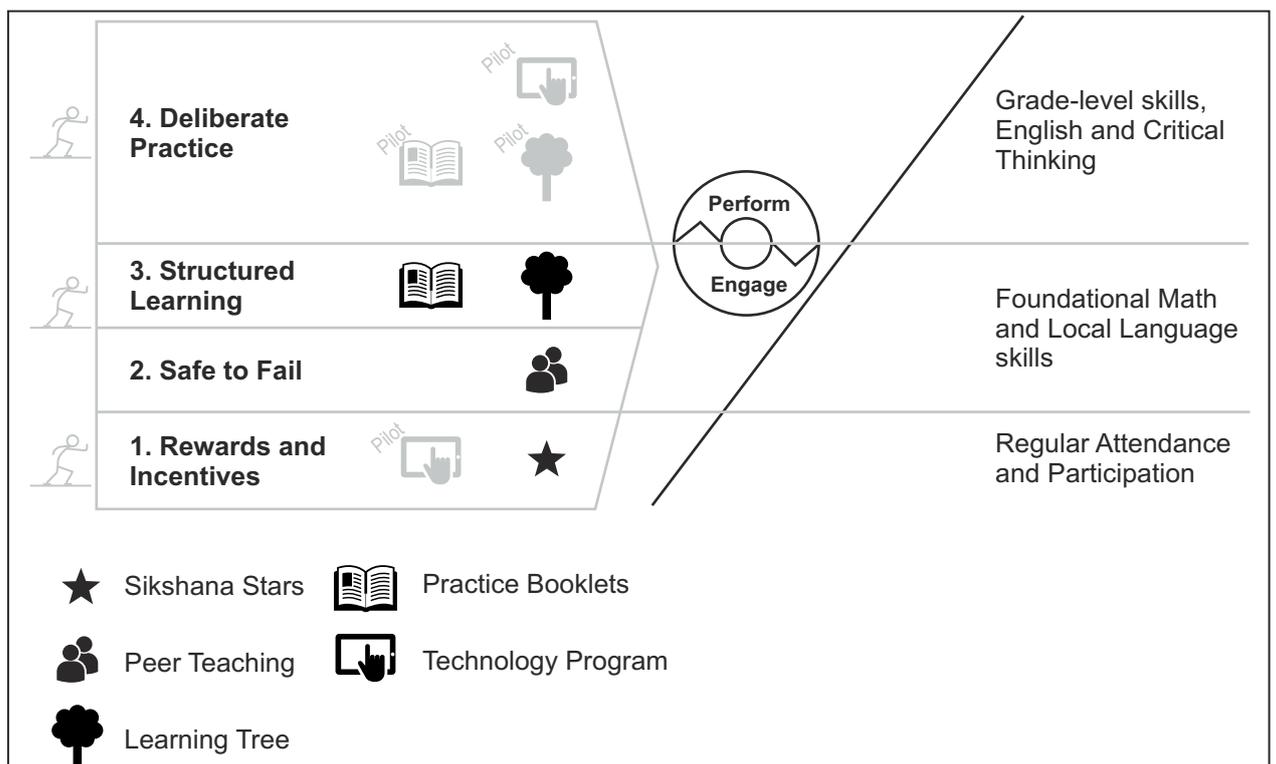
Sikshana programmes at a glance. Goals range from foundational good behaviours like regular attendance to grade-level learning skills. To achieve this Sikshana employees called Mentors drive interventions such as incentives, peer-teaching, practice materials, goal-setting aids, etc. Eachintervention helps turn the virtuous wheel of student engagement resulting inlearning success, encouraging deeper student engagement.

Step 1. Rewards and Incentives

★   To start, students are offered non-financial rewards such as star-shaped badges, science or sports kits for the school, etc. for basic good behaviors such as attending school regularly, class participation, participation in sports and extracurriculars, personal hygiene, etc.Unless these fundamentals are ensured, it is difficult to drive any improvement.

Sikshana Mentor explaining to students what they have to do to earn the sought-after Stars.

News from 2015-16 – The Foundation launched programs in Davanagere for the first time in 2015-16 and teachers reported that within just 3 months. more than 25 children in a single block started to attend school regularly to win rewards. Teachers have readily recognized the value of Stars. In Government Higher Primary School (G.H.P.S)Kodkikere (Davanagere district), the value of Stars was readily recognized by teachers. Like most government schools, the schoolwas facing the problem of irregularstudent attendance. One of the teacherslearned about Sikshana Stars from a peer at a different school where Sikshana programmes had already been launched. Motivated by what she heard, the teacher of Kodkikere School started making her own Star badgesand using them in her class. For almost a month her star badges were circulated in the entire school and were used as incentive to encourage the students to attend school regularly.

"We made similar star badges (silver, green and pink) using drawing sheets and started awarding it to the students as a token of appreciation. As a result, attendance in our school improved significantly and students started to take the initiative in maintaining personal hygiene and in keeping the school premises clean also", informed Mamtha S.V.,Head Mistress of the school.

When SikshanaMentors visited the school a month later to launch programmes, they were in for surprise hen informed that Stars had already been in use for a month! This was a strong testament to the value of the programme in the eyes of the stakeholders for whom it has been developed.

To attract students and parents to their local schools, and to encourage regular attendance, Sikshana is developing a technology-based learning program. Students are given an opportunity to work withdigital content on tablets and laptops, which they otherwise do not have access to. Students find this novel and interesting, and parents value digital literacy skillsfor their child(ren).

News from 2015-16 – A pilot of the program was conducted in 8 schools of Ramangara taluk with funding from Dell. Success stories started to emerge, almost immediately.

"Ayaz is one of the students in my class. He was very lazy in writing and was lagging behind in maths. Soon after the introduction of the [Dell tablets], he has become very alert. He not looks forward to using the tablet, but also practices using his maths practice booklet regularly. He has also been writing consistently, and has been completing his writing booklets." Shobha Rani, Teacher, G.H.PS. Mayaganahalli.

⌨   To attract students and parents to their local schools, and to encourage regular attendance, Sikshana is developing a technology-based learning program. Students are given an opportunity to work withdigital content on tablets and laptops, which they otherwise do not have access to. Students find this novel and interesting, and parents value digital literacy skillsfor their child(ren).

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As students start to engage, the next step is to create a psychological safe space, where students feel confident enough to attempt a difficult or embarrassing learning activity even if there is a risk of failure (e.g. class 7 child learning long division for the first time – this is a class 3 skill that many of their peers have, and that their teachers expect them to have also).

Peer-teaching is a research-backed intervention that helps create a collaborative environment. It builds rapport between students and gives them a sense that they can count on the support of their peers.
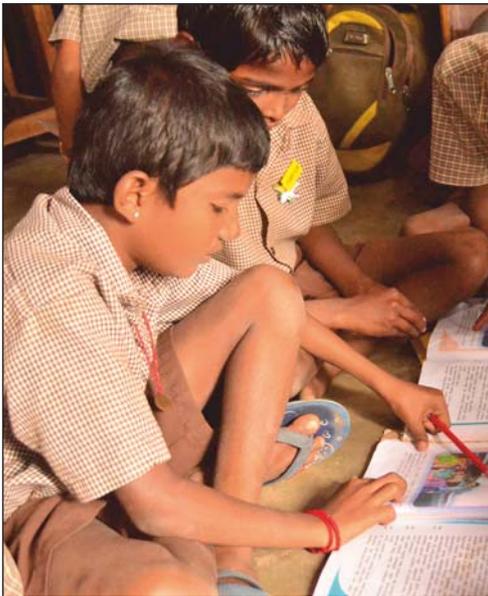
A student helps a peer improve their reading fluency

Peer-teaching is effective because most students in each class have understood at least one concept and are therefore in a position to share their knowledge with one of their peers. Mentors and CRPs work with teachers to create peer-teaching pairs. Such pairs typically find 30-45 minutes everyday either before school hours or during recess to sit together and practice concepts. In this way, peer-teaching complements the teaching that happens during class-time.

News from 2015-16 – Students in rural areas often face a shortage of school teachers. Peer-teaching is a tool that Sikshana has been putting into the hands of students to help them overcome this challenge. Students have been recognizing its value and applying the tool in all areas of academic difficulty.

"Peer teaching happens everyday in school from 12PM to 1PM. Students have not only been working on mathematics and reading in Sikshana's programmes but also other subjects that they find challenging, particularly English", reports Prema, Head Mistress, G.H.P.S. Hulibele.


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Step 3. Structured Learning

As students start to put in efforts to learn, they can still be easily dissuaded by basic challenges: "I don't have anything to write on", "I don't have study materials", "Does this really matter? Is there a test I need to pass? Does anyone care?" (particularly important to children, as they crave attention), etc.

Sikshana provides all students with writing booklets. Students are expected to complete 4 pages a day, spanning English, Kannada (with a handwriting focus), Kannada (with a speed focus), drawing and mathematics. Students are given a series of writing booklets, and receive the next booklet once they complete the prior booklet – but only if they ask for the next one (this is a test of their motivation level).

Step 2. Safe to Fail
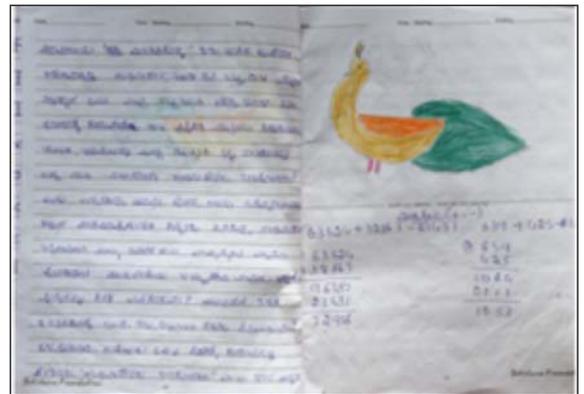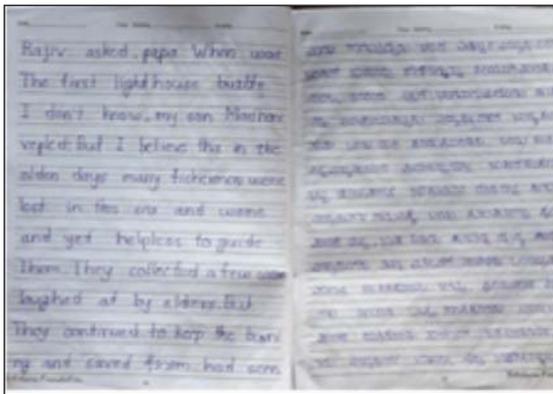
Students are expected to complete 4 pages of their writing booklet each day.

News from 2015-16 – Prior to 2015-16, students were supplied with loose sheets of paper to practice. However, this was relatively difficult to track. In 2015-16, the writing booklets were launched with the aim of both setting students a daily target (4 pages of different activities every day), as well as of tracking their usage. Students completed 3 writing booklets, i.e. roughly a booklet a month, between Nov and Feb. This was aligned with expectations, and was a strong result for year 1. We will be looking to grow this average to 6 booklets in the 2016-17 academic year.

Teachers were the first to recognize the need for practice. According to Shanta Naik, Headmistress, G.H.P.S. Anjanapura, "Initially, we saw that students were not practicing because they did not have paper, pens, etc. We started to buy them paper and pens ourselves and got them to practice. Sikshana saw this and started to give sheets of paper. This decreased our burden, and also allowed us to give more paper to the children. Students in our school have been regularly using the practice booklets given by Sikshana, and have significantly improved their handwriting as a result"

As a result of the inspiring start by teachers like Ms. Naik, Sikshana practice booklets reached over 40,000 students in rural and semi-urban taluks in Karnataka and Maharashtra in 2015-16.

Besides writing booklets, Sikshana also provides students with practice booklets for mathematics. The booklets have been created to develop foundational skills in mathematics at the ASER level (i.e. up to class 3 and early class 4). As in the case of writing booklets, students are expected to complete 2 pages of the math booklet each day. The math booklets are also given as a series, with students receiving the next booklet only once they have completed the prior booklet and have asked for the next one.

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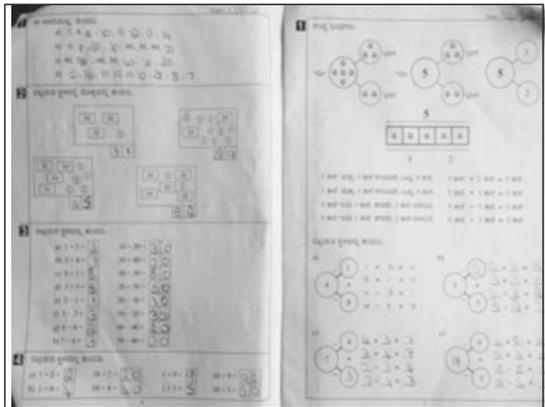
With the same concepts being presented in multiple ways, students find Sikshana's math booklets engaging, regardless of their prior level of proficiency

Step 3. Structured Learning

News from 2015-16 –The math practice booklets were developed for the first time by Sikshana in 2015-16 by curating, collating, and sequencing open-source content from materials developed by the Karnataka State, by curriculum developers in UK, Australia and Singapore, etc.
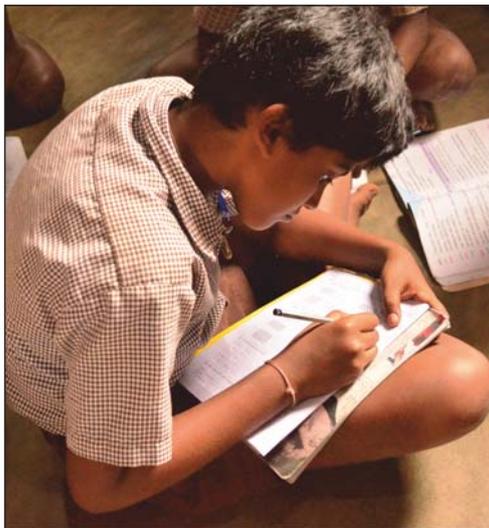
Students are expected to complete 2 pages of their math booklet each day.

"Sikshana's maths booklets have been helpful for the students in my class who are lagging behind. I would suggest that the next version should come in different sizes for different classes. Students in class 4 would appreciate pictures to be in bigger sizes, whereas students in class 7 will find the current booklets useful.", has been the feedback fromGeethasaveraMata, Maths Teacher, G.H.P.S. Hulibele.

Sikshana's math practice booklets also caught the eye of the Principal Secretary for Education in Karnataka, and as a result, Sikshana has been invited to partner with the state to create further practice booklets for classes 4 to 7 in 2016-17.

The writing booklets thus address the need for a medium to practice on, and the math booklets address the need for the structure that is essential to guide practice. As students leverage these and acquire new skills, it is critical for their progress to be recognized and encouraged. Students are therefore provided with a "Learning Tree", which is a graphical representation of the competencies that they must master. Students earn stickers for learning skills like addition with carry, understanding fractions, using time and other measurements, reading comprehension, etc. These stickers come together to form the shape of a tree (though future versions may create other images).

The Learning Tree helps students track their progress, understand gaps and set their own goals for what they want to learn next. Once students set and work towards their own goals, their journey from extrinsic reward-based motivation to self-driven intrinsic motivation is complete.

The Learning Tree is also intended to help parents understand at a glance the skills that their children have acquired, and where there are gaps. Students with an "A"-grade will learn of gaps that might otherwise be hidden, Those with a "C" can take heart from skills that they have acquired, and those with a "B" receive clear feedback about what they have learned and where they need to improve to get an "A".

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Students hold up their "Learning Tree"

News from 2015-16 – The Sikshana Learning Tree was recognized by the Department of Education as being innovative.

"As per the Continuous and Comprehensive Evaluation conducted by the Education Department, children must be given feedback on the skills that they have acquired and where they must improve. The Learning Tree is a very attractive concept to help teachers to givefeedback to both parents and students in a way that they can easily understand.", Gopinath, Head Teacher, Government School, Ambedkar Nagar, Kolar.

Step 4. Deliberate Practice

📖 🌳 As students acquire foundational math and language skills, it is essential to maintain their learning momentumas they pursue grade-level skills. Sikshana is developing grade-specific content in the form of Learning Trees, practice materials, multimedia, projects, etc. in order to identify the areas where students need help (i.e. their "Hard Spots"), and to help them specifically practice these Hard Spots to achieve breakthroughs.

News from 2015-16 –The Karnataka State curriculum developer (DSERT) has agreed to partner with Sikshana in 2016-17 to create grade-level Learning Trees, as well as grade-level practice materials for students in classes 4-7.

🖱 To add to grade-level practice booklets and Learning Trees, Sikshana is developing a scalable technology-based learning program. The aim is for students to be able to work with foundational and grade-level content in math, English and science on tablets and laptops. Sikshana is curating and collating open source content for this purpose, while developing additional content to fill any gaps. The eventual aim of this program is to inform the ICT policy of the Education Departments of State Governments.Many states are making or are planning to make investments in ICT for schools and would benefit from knowledge of models for infrastructure and processes that are effective in creating better learning outcomes.

Students make the most of their time with the tablets in their school

News from 2015-16 – A pilot of the program was conducted in 8 schools of Ramangara taluk. Based on the learnings from the program, including how and when students like to interact with the devices, and what kind of content seems most appealing to them, Sikshana has now developed a second round of the pilot in 200 schools of Ramanagara and Magadi taluks for the 2016-17 academic year. Both the initial and second round of pilot are fully funded by Dell.

"The [Dell tablets] are very useful for both students and teachers. Students are highly interested in using the tablets, and come on time as per the time-sharing calendar. I am very happy about this because government school children are also using technology in learning English and maths. In maths, students are observing their progress and are going further as per their ability. They have improved a lot. All the students are also using the English app very well. This is the most popular app. Students enjoy pronouncing words, and identify pictures and make sentences of their own." – Shobha Rani, Teacher, G.H.P.S. Mayaganahalli

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To monitor and run the above programs in schools, Sikshana has appointed paid full-time staff called Mentors. Mentors are typically educated rural youth, who are local to the schoolsand identify with the problems, and who are able to build relationships with the teachers and community.Mentors are assigned 13-15 schools each and must then visit each of them at least once a fortnight, usually by visiting two schools a day. Mentors are provided with a checklist for each visit and must complete all the action-items as per the list or make additional visits until they do.

As Mentors only visit schools once a fortnight, they have limited time in each school. To be effective and to have a continuous presence, Mentors create a Student Club in each school. The Student Club is made of 2 leaders – usually high-performing students with leadership skills – from each class (4-7 only), as well as a Sikshana Champion (usually a senior teacher or HM).The Student Club works under the guidance of Mentors to monitor and to drive Sikshana programs continuously. The Club also provides general leadership opportunitiesto organize cultural, sports and environmental activities in the school.

News from 2015-16 –Virtually all Sikshana Student Clubshave examples of students inspired to take initiative in their schools and communities.

According to the HM of G.H.P.S. Hadadi, "Shiva Kumar, who is the Student Club President in our school,took the initiative to conduct daily visits to the houses of students who were irregular in their attendance. He met their parents and discussed the need to send children to school every day. Shiva Kumar would prepare a list of irregular students daily and then visit them from 9:30 A.M. to 10:00 A.M. asking them to attend school. As a result of his efforts, five students who were irregular have started attending school regularly."

The Student Club President for G.H.P.S. Hulibele discussing the challenges she is facing with a Sikshana Mentor

For Seventh Standard student Yeshwanth Chari, the training he underwent as the President of the Sikshana Student Club in his school gave him the confidence to convince the President and members of Mudigere Gram Panchayat to provide sweaters, tie and identity cards to his school-mates."As a Student Club President of G.H.P.S.[Mudigere], I felt responsible towards the well-being of my school mates and wanted to help them in some way or other. I consulted all the Club members, who then came up with various suggestions.We finally came to the decision that we would arrange neck ties, sturdy student identity cards and sweaters for our school mates." explained Yeshwanth."We also decided that we would seek support from members of Mudigere Panchayat. Accordingly, we approached them and were able to convince about their needs.As a result, the Panchayat along with the members of local Youth Club donated 89 sweaters, neck ties and identity cards to all the students." "Sikshana Student club has honed my leadership skills, communication skills and my ability to convince people.As a result I was able to do something for my schools-mates."

Appreciating the various programs of Sikshana, Mr. Ranganath, the Cluster Resource Person for G.H.P.S. Mudigere, said "Sikshana programs have indeed brought about a positive change in the school. Student Clubs especially have played a pivotal role in honing the leadership qualities of the students."

For a program that was piloted only a year ago, Sikshana Student Clubs have rapidly become a powerful mechanism to both drive the goals of Sikshana programs and to grow the leadership qualities and confidence of the students in supported government schools.

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4. Scaling Up

Sikshana Foundation was set up with the mission of evolving scalable and replicable models for an effective public (i.e. government) school system.Since the start of operations in a single school in 2003, Sikshana has grown to support nearly3 lakh students in over 2,000 government schools in 2015-16. This makes Sikshana one of the best scaled organizations in the field of education in India.

While 2,000 schools is certainly significant scale, it is still only a small part of the 50,000 government schools in Karnataka alone. A model is clearly needed to ensure that interventions are scaled quickly and sustainably.

Sikshana Accelerator

In 2015-16, Sikshana launched a pilot programme sponsored by Vibhato create a blueprint for a scaling model. Sikshana recognized that whereas the Foundation has the ability to innovate and test new ideas quickly, the government is best placed in terms of resources and processes to scale up proven interventions.

With this in mind, Sikshana launched the pilot of an "Accelerator" programme in Davanagere.The aim was tounderstand how to transfer knowledge regarding interventions, and what challenges may be faced. As a start, Sikshana set the goal of leveraging the Education Department machinery to implement three interventions, viz. Stars, peer-teaching, and Sikshana Student Clubs.

As the focus of the Acceleratoris on knowledge transfer and on making use of the government infrastructure and people resources, the staffing structure was modified accordingly.Sikshana appointed 2 Mentors to support the teachers and government officials of each block (compared to 9-11 Mentors in the traditional model).

Cluster Resource Persons(CRPs) were identified as the key officials to partner with. Just like Mentors in the traditional Sikshana model, CRPs are responsible for understanding teacher and student needs in schools, for coaching teachers in schools about interventions and for monitoring progress of learning levels. In other words, they are well placed to take over the management of Sikshana-developed interventions.

Picture: In 2015-16, Sikshana conducted leadership training camps for all the 116 CRPs of Davanagere. Unlike traditional training sessions, these are highly-interactive and participative training modules, and are sought after by trainees. Sikshana's CRP training camps for Davanagere saw 100% sign-up and attendance, a testament to their stakeholder appeal.

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By attempting to implement Stars, peer-teaching and Sikshana Student Clubs through CRPs, Sikshana gained key insights regarding mechanisms to make the partnership fruitful. The mechanisms included leadership training camps, demonstrations of how to deliver the interventions, "shadowing" as CRPs deliver the interventions themselves, creation of an MoU to provide official recognition, etc. In the end, all three interventions, i.e. Stars, peer-teaching and Student Clubs were launched in all the 637 schools of Davanagere, with CRPs delivering the interventions autonomously in about two-thirds of the schools.

The success of the above 2015-16 pilot has laid a critical foundation for the efforts to come in 2016-17 and beyond. Sikshana has now been invited by the Karnataka state government to fully launch the Accelerator and to transfer knowledge of student motivation programs for ~1,00,000 students in ~1,500 government schools of two districts.Over a 3 year period starting 16-17, Sikshana will work through government officials and teachers to deliver student motivation programs in these two districts. Sikshana will exit its supporting role at the end of the 3 years. In doing this, we will show how the government can scale up and sustain Sikshana-developed programs as their own, throughout their 50,000 school network.

This public-private partnership model of the Sikshana Accelerator, made possible by Vibha, creates a blueprint for how Sikshana can expect to scale its impact and bring about meaningful growth in state and country-level learning outcomes.It represents both Sikshana's scalability and its sustainability strategy

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5. Volunteer Engagement

As Sikshana journeys towards large-scale impact, the importance of tapping into the diverse skills and interests of corporate employee volunteers cannot be overstated. The key challenge here has always been to match the skills and interests of volunteers with the needs of the communities in ways that are value-creating.In 2015-16, Sikshana worked with its corporate partners toco-create a breadth of volunteering opportunities for employees who wish to give back to the community.

Students at the Mindtree campus

Visits to Corporate Campuses by Students

Mindtree and Dell hosted nearly 100 students for 3-4 hours of activities on their campuses in Oct. Students interacted with employees to learn about their work, an opportunity meant to broaden their horizons as they think about their career aspirations. The students eagerly lapped up information, and a number of very impressive (and unexpected) questions came up, including "How do you test products before you sell them?", "How do you manage product returns?", "If you find out a part is defective, do you replace it in all computers shipping out after that", etc. The children certainly kept everyone on their toes!

Dell volunteers also organised activities in their campus in Dec 2015. These included cultural activities, collage and games for students of Government Higher Primary School (GHPS),Madapatna School, as well as drama, dance, computer training and motivational classes for high school students and teachers.

Activity Days in School

A team of EMC volunteers visited GHPS,Koppagatein Jan 2016 and engaged the 120 students of the school in various activities such as quiz, debate, drawing, craft and games, rewarding the winners. The program was well received by the teachers, who felt that such activities encourage the children to hone a range of talents.As a token of their appreciation, the school teachers organised a game of musical chairs for the volunteers! In Mar 2016, thevolunteer team returned to the school for a day of games such as cricket, badminton, lemon and spoon etc. to close out the academic year with a bang!

The EMC team conducting
a debate contest in GHPS Koppagate

Similarly, volunteers from Target conducted events to motivate students by giving small gifts and organizing cultural competitions. As part of Target's Annual Day celebrations, volunteers gave away gifts such as books, stationery, working models etc to students, and conducted drawing, quiz, debate and team building activities.

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School Improvement Day

Employee volunteers of Dell and Target took part in improving the school environment. In Apr, Dell volunteers took a day to cleanschool premises and to then beautify the school walls and compound by painting them. This was right on time for the kids returning in Jun to be pleasantly surprised. Similarly, volunteers from Target also painted schools and libraries to attract children back to school, and to make the environment a pleasurable one.

Aside from painting, the planting of saplings was yet another way for volunteers to make school apositive learning environment.Over a 100 volunteers from Dell undertook the planting of saplings in Ramanagara block.

"Bring Your Own Program"

Volunteer engagement programs at Sikshana are essentially a co-creation activity, taking into account Sikshana's knowledge of the needs of the community and the CSR's ideas for ways to engage. A result of this co-creation was the Mindtree Joy of Giving program.

The MindtreeJoy of Giving program was organised in 75 schools of Kanakapura,bringing smiles to the faces of the students. As many as 6,371 students from these schools received gifts from Mindtree employees,who visited the schools over 15 days. The volunteers interacted with the students, stressing the importance of education and the opportunities that it can open up. They had also designed various motivational activities for the students. Teachers felt that the program effective in bringing about behaviorchanges among the students, particularly in terms of attending school more regularly, showing interest in academics, as well as prticipating in extracurricular activities.

Overall, the 2015-16 programs have laid the foundation for an even stronger set of volunteer engagement activities in 2016-17. With presence in over 600 schools near Bangalore, Sikshana has identified over 5,000 volunteer days of opportunities for 2016-17.

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