

Vignyana Vahini (Mobile Science Van) visit, July 2014

On this visit I focused on the infrastructure in Sargur instead of individual school visits. Specifically I focused on the Science Park and the radio program on Science.

Recent Updates

Science Park

The Science Park has come out phenomenally well. One success of the project is the impact it has had on initiating government activity in the area of Science education. As a joint project (with significant government contribution) a Science Park has been built in Sargur. The park has life size models illustrating Science principles. It provides a way for students to explore Science, hands-on, in a way that is very experiential and playful. The park is very popular with teachers from surrounding schools (govt. and private) coming to the park as a school trip. The park is organized by Science theme. There is a handbook at the beginning of the park. The government, through the Karnataka Science and Technology Academy has contributed significantly – Rs. 30 lakhs last year and 40 lakhs this year, funds have been used for establishment of the park and for some other Science activities.

Here are some blog posts on the park:

Inauguration of phase 1: <http://blog.svym.org/2014/02/annual-day-celebrations-at-viveka.html>

Inauguration of phase 2: <http://blog.svym.org/2014/08/inauguration-of-scienceexploratory.html>

As explained in these blogs, 1300 students have visited the park since its inauguration in January 2014, mostly from government schools. It has 55 pieces of outdoor equipment for visitors to explore. Each model has a description on the Science principles it illustrates. For children who have no access to any Science museum unless they visit Bangalore, this hands on park is a wonderful aid to understand Science in a way that they will remember forever.

Most of the manual labor for constructing the park was contributed by Vignyana Vahini staff (everyone, including coordinator Praveen).

Pictures of the park from my visit:



Janadhwani (Community Radio)

SVYM runs a community radio station, currently in its third year, is having a phenomenal influence on the community. The programs cover awareness, development, governance, right to information, participation in democracy, freedom of expression, employment, health, education, etc. The Vignyana Vahini project runs a 30 minute program on Science weekly. This has become hugely popular, and some teachers enthusiastically participate and speak on the program.

DVDs in Schools

Prema Vidya, another SVYM program has developed DVDs for use in class when a teacher is not appointed/available/on vacation. Practically every government school has at least one or two vacancies, so students might go an entire year without a Science teacher or a Geography teacher. Prema Vidya distills the high school syllabus into DVDs for students to use in the classroom. As we have observed in Vignyana Vahini a key component has become Vignyana Vahini staff filling in such gaps in schools they visit. The DVDs will be an additional resource for the schools to use. There is a plan to make DVD players available in all schools. Even with teachers available this is a good revision tool, and it makes teachers and students look forward to the class (there is a novelty in using the visual material.)

Miscellaneous

Continuing with the work last year they work with schools to use funds available to them to buy relevant materials for use while teaching Science.

For the teachers' workshops they solicit input from the teachers on what they would like covered. Teachers responded with what they wanted to learn – about the new curriculum, and lots of mathematical topics. Vignyana Vahini has engaged with teachers as equals from the beginning and this has really helped the program.

The team is now expanded – 2 people focused on high schools (Asha supported), 3 on higher primary schools, 1 on the Prema Vidya program, and 4 on the Science Park.

Higher Primary Schools

Vignyana Vahini folks have been saying for a while now that we should expand the program to higher primary schools. They are running something on threadbare budget, with 4 visits per school per year. They have created a model of cost per school and are looking for sponsors for schools. I think they have about 10 donors. They are actively looking for more funds. This is something we can help with.

Future Thoughts from the Project

Have an independent third party evaluation of the project. Some parameters are impact on the students' interest in Science and the impact on government involvement. The former is more intangible so harder to measure.

SSLC exam performance is one metric. While that has improved, there are other factors that impact the learning at a school. For example some schools perform better than others, the factors are many, teachers being an important component. One student, Kavya, had just heard that she got admission to B.E. when I visited. She finished her high school after the start Vignyana Vahini, went on to study Science in PUC, and now is starting B.E. While the impact on her knowledge is not easy to measure, the program has definitely contributed to her confidence that she can pursue a Science and Technology field. 4 students have joined the Viveka Scholar program in Mysore while studying PUC in Mysore (scholarship and support for meritorious students in PUC). Since SVYM is a large organization they are able to connect multiple projects and provide support beyond this project. Praveen continues to think we should actively ensure that students have support while studying Science in PUC. We shouldn't encourage them to study Science and then have them get demoralized in PUC.

My Thoughts

There is no question that the higher level impact is immense. Science Park, Community Radio, are some examples of initiatives which can have an impact at a larger scale. Parents, teachers and the community now fully recognize that Science teaching is a key effort at SVYM.

The question I have is whether we should focus more at an individual school/student level. For example, to result in students who are like the SEED PLAN students – brilliant at what they do. They know the subject matter well, are confident, articulate, and have gone on to do great things.

SEED PLAN is a different model – it focus on individual students rather than attempting large scale change. Their focus is depth rather than breadth. With breadth we get some B.E. students, and a general increased interest in Science, but there are also lots of students who don't make it to B.E. We are not focusing on the individual students. The best students take advantage of the opportunities enabled by Vignyana Vahini, but it is not clear what is done for the average and less than average students.

To do this at a project level would require a lot more funds, since to begin with we would need a lot more staff. Alternatively, we should focus on some teacher centric activities so that the teachers can help all their students to do great things. There are many teachers who seem very interested. But they have other factors that influence SSLC performance of a school. What can we do to help?