

Project Sangamam Kanini Phase I
Employing Computers and Internet to Enhance Education in Govt Schools
Asha Chennai Proposal – Year 2014-15
April 24th 2015

Background

Ever since the start of Asha Chennai chapter in 2004 we have been working with Govt. schools to try and improve the quality of education. Our primary strategy has been to appoint teachers in schools that has insufficient number of teachers, provide training to our teachers and when possible to also the government teachers, to provide materials to aid the teaching at the school, and to also improve the infrastructure at the school to make it effective.

Using technology to improve the education has always been part of our goal. In the years 2005 to 2008 we were developing ECTAL, a comprehensive set of presentations to teach more difficult concepts in all subjects from 3rd to 8th standard. In 2008 we donated 100 computers from Inautix to the schools we support. We have been maintaining computer labs in these schools and have been using these to teach the children about how to use computers.

Proposal

Computers in a classroom can be effectively used for a variety of purposes. We intend to use them for the following purposes,

1. Delivering lesson plans to the teachers to instruct them how to teach a specific lesson. In particular
2. Guide for pronunciation, meaning, grammar etc. for English lessons.
3. Augmenting that with contents like Videos to aid them in understanding how to teach the lesson or in conducting activities related to that lesson.
4. Contents that can be viewed by the whole class to learn a lesson (like ECTAL) or a related topic better.
5. Provide materials for the teachers that would be useful while teaching the class incl.,
 - Worksheets.
 - Materials to be used during activities incl. offline games.
 - Assessments.
6. Allow teacher to enter marks from assessments so that good analytics can be done on the same.

The following would require more computers and will probably be part of Phase II or later.

7. Allow students to work on worksheets.
8. Allow students to take diagnostic tests and assessments directly on the computer.

The work will be broken into multiple phases. The different phases envisioned are as follows.

Phase	Time Period	Schools and Teachers Impacted	What would be done.
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I – Proof of Concept	Academic year 2015-16	Asha Chennai supported and partner schools – Asha teachers only at govt. schools. Sangamam – 13. Pearl – 3. Poorna Vidhya – 2. Olcott Memorial School – 7. Total – 25.	<ul style="list-style-type: none"> - Provide computers and internet connections to our teachers and through them Internet connection to the schools. - Provide schools the mechanisms to display content for whole classroom. - Provide minimal contents for just Maths and English (described below). - Ensure smooth operation (computers, network connections and our software work well under operational conditions). Conduct baseline assessments of the learning levels at these schools. - Collect data on how the contents are being used in the classes to help us refine these. - Ensure the contents and materials are being used by our teachers.
II – Field Trial	Academic year 2016-17	Asha Chennai and other Asha Worldwide associated project schools. (About 100 to 200 classrooms total).	<ul style="list-style-type: none"> - Provide computers and internet connections to all teachers/schools in the classrooms – wait to see if the government itself is providing and only fill in the holes. - Enhance the contents provided to all subjects and to cover all areas mentioned above. Impact actual educational process at these schools incl. instruction and assessments. - Refine the software based on feedback to ensure ease of use.
III- Limited Deployment	Academic yes 2016-17	About 100 schools.	This will be the main test where we are deploying our system where there is no Asha presence. This will be the main test to see whether it can be used without our active presence/support.

The contents to be provided for phase I would only be related to English and Maths. It would include the following,

1. Instructions on teaching for Maths and English.
2. Khan academy contents for Maths in English and Tamil.
3. Reading out of all the English lesson in good English. Also notes on vocabulary and grammar to go with every lesson.

4. Formative and Summative assessments for Maths and English from Teach for India and other sources.
5. ECTAL contents.
6. Contents from the Aziz Premji Foundation CDs.

There are several other resources available on the Internet. As the project progresses, we will be mapping a lot of these contents to the lessons in TN state board text books as well.

Voluntary Work

As a volunteer based organization, our main effort will be to get as much of the work done using voluntary effort of people from Chennai and the rest of the world. In particular we hope to get most of the software development and content development work done for free using volunteers. We have only allocated a small amount towards this in the project. That would be more for covering costs of translation work and things like costs for recording studio if required.

For Phase II and beyond, it may not be possible to continue the work in the same manner. We will take the call at that point regarding how we continue the development work.

Budget for Phase I

SNo	Work Description	Cost and Modification Details	Total Cost for Asha
Common Items			
1	Laptops for each of the 25 teachers. Minimal i3 based configuration with 4GB RAM, 500 GB hard disk, webcam and Wifi.	25 * Rs 32,000 per laptop.	Rs 8 Lakhs
2	Wifi enabled 3G data cards.	25 * Rs 2,200 per card.	Rs 55,000
3	Digital projector, screen and speaker set and one per school for classroom use.	Rs 15,000 * 16 schools.	Rs 2.4 Lakhs.
4	One printers for the Sangamam office along with supplies for printing for this year.	Rs 9000 + Rs 1000 * 12.	Rs 21,000
5	Data plan for all the teachers. Note this ramp up will be over the year. Hence putting a lower number of teachers. We will also attempt to get a bulk discount from Airtel/Vodafone.	Rs 800 * 15 * 12.	Rs 144,000
6	System / Network administrator for managing the network and machines.	Rs 12,000 * 12	Rs 144,000
6	Miscellaneous costs (repairs, paper, Xerox of materials, failed experiment with some hardware etc.)		Rs 50,000
7	Contents for Maths from Ramanujan centre.		Rs 50000.
8	Staff for content mapping.	Rs 5500 * 12 + 3000.	Rs 69,000
9	Provision for English Helper, other contents, content translation and recording.		Rs 1,00,000
10	Assessment creation, execution, grading and other work.		Rs 50,000
11	Administration (Documentation, Conveyance etc.)		Rs 25,000

Fund Requirement/Schedule Summary

Total Project Funding Requirement

Approx Rs 17.48 Lakhs.