Eureka Quality Improvement Program
EQUIP Krishnagiri

A proposal to ensure
Quality Education for Every Child

Submitted to Asha for Education, Seattle by AID INDIA

Introduction

AID INDIA is a voluntary organization that is working in nearly 15000 schools and villages in 10 districts across Tamilnadu. AID INDIA's mission to ensure quality education for every child.

Tamilnadu has an excellent school system and has been able to address the question of access almost completely – except in certain tribal pockets and child-labour intensive areas. **But there is a very serious problem of learning quality in schools.**

In this proposal we present the learning quality problem, our broad solution to the problem and the quantitative and qualitative results we have so far been able to get. We then present the specific proposal for Krishnagiri District (which is one of the poorest districts as well as one of the worst districts in education standards in the state). We then present the timelines, specific deliverables and expected impact with measures and the budget. Finally in the appendix are a few notes about how our approach differs from most other groups working on education.

The Learning Quality Problem:

Tamilnadu has 10 million children in school. The state runs 30000 Primary and 12000 Middle and High schools. The state also runs 50000 Anganwadis (Balwadis/pre-primary centers). School enrollment rate is about 97%. Yet, there is a crippling crisis in the education system – the Learning Quality Crisis.

- 50% children in 5th standard cannot read a paragraph in Tamil. 10% cannot even identify letters.
- 50% children in 5th standard cannot even subtract two 2-digit numbers.
- Science education is just rote memorization – no concepts, no experiments, no connection with the real world.
- Many 4-year-olds in balwadis cannot even match two identical pictures - something even 1-year-olds in middle class families easily do.

The problems are just a few visible symptoms of a larger **learning quality crisis in Tamilnadu**.

The four major reasons for the learning quality crisis are:

1. **No School Focus on Basic Skills**: Focus on exam mark & textbook memorization and not on ensuring basic skills.
2. **Lack of Learning Resources:** No access to learning resources. Schools and teachers have no libraries, no reading materials, no activity kits, no science experiment materials, etc. Balwadis have no learning aids or even simple toys.
3. **Ineffective Methodology**: Teachers lecture and read out from books. There is no focus on activities or even demonstrations in class. No avenues for children to think independently or to work in groups or to learn by doing. Poor training of teachers. Teachers are not trained in practical ideas nor on good teaching methodologies.
4. **Low community involvement**: Low community interest and involvement in education. Poor children have no access to a learning environment at home.

Our Broad Solution to the Learning Quality Crisis:

We have developed an integrated plan to improve the learning quality of every child in the state. We have a two pronged implementation strategy:

Two Pronged Implementation Strategy

Improve Learning Quality in Schools

We work with teachers to bring about **measurable improvements** in specific learning skills like reading, maths and science. We train and motivate teachers, provide teaching learning materials and change classroom practices through regular visits and practical demonstrations.

Create Community Learning Initiatives

We mobilize village volunteers, train them and start village libraries, children's learning centers, form science clubs, math clubs, sports clubs, etc. We also get the community volunteers to both help schools improve as well as to pressurize schools to deliver quality.

To implement this strategy we build a Government-Civil Society Partnership. We work with the State Government and District Government Officials and also with a large number of local NGOs and Panchayats. This builds a larger consensus for the programs we execute in the district. This partnership apart from helping in the implementation also helps us ensure that the ideas we introduce become part of the education system and therefore sustain beyond the project period.

Quantitative and Qualitative Results of Our Programs So Far:

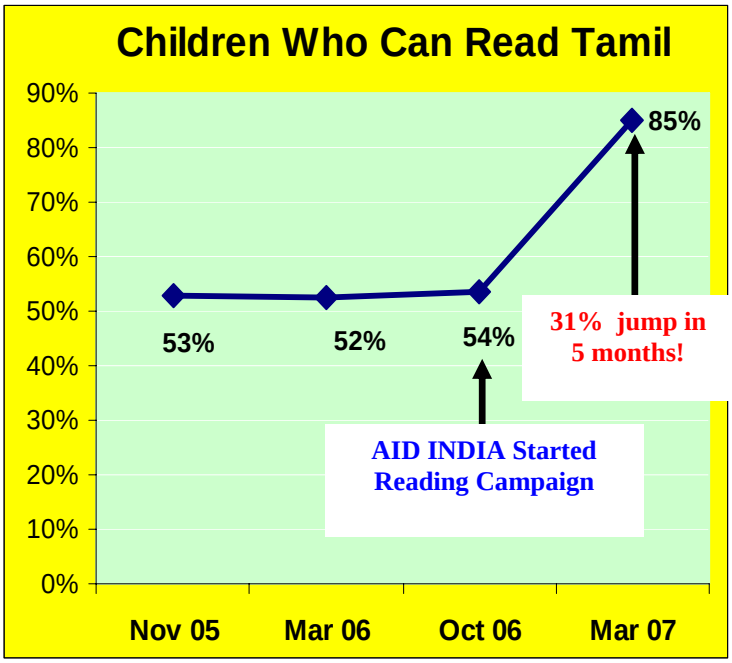
We have been working for the last 5 years on a number of education initiatives across Tamilnadu in the following areas:

- Primary Education:
  - Improving Reading Skills of Children
  - Improving Basic Math Skills of Children
- Pre-primary Education
  - Visual Recognition, Counting, Motor Skills and Sensory Skills
  - Pre-reading and pre-writing skills
- Secondary Education
  - Science Education
  - Math Education
  - Life Skills and Health Education
- Community Initiatives and Community Learning Centers
  - Village Libraries and Children's Clubs
  - Science and Math clubs
  - Support Centers and Summer Campaigns

Below is a brief description of three of our programs:

Padippum Inikkum Tamil Reading Skills Program

450,000 children in 7300 schools improved their Tamil reading skills through our Padippum Inikkum Reading Campaign. Across 5 districts, ***children who can read*** went up from **54% to 85%** within 5 months of our starting the reading campaign!



A few years ago we developed a group-activity based reading program called Padippum Inikkum. We field tested this in 182 schools and after that expanded the program to 7300 schools. This program brings about a rapid improvement the reading levels of children.

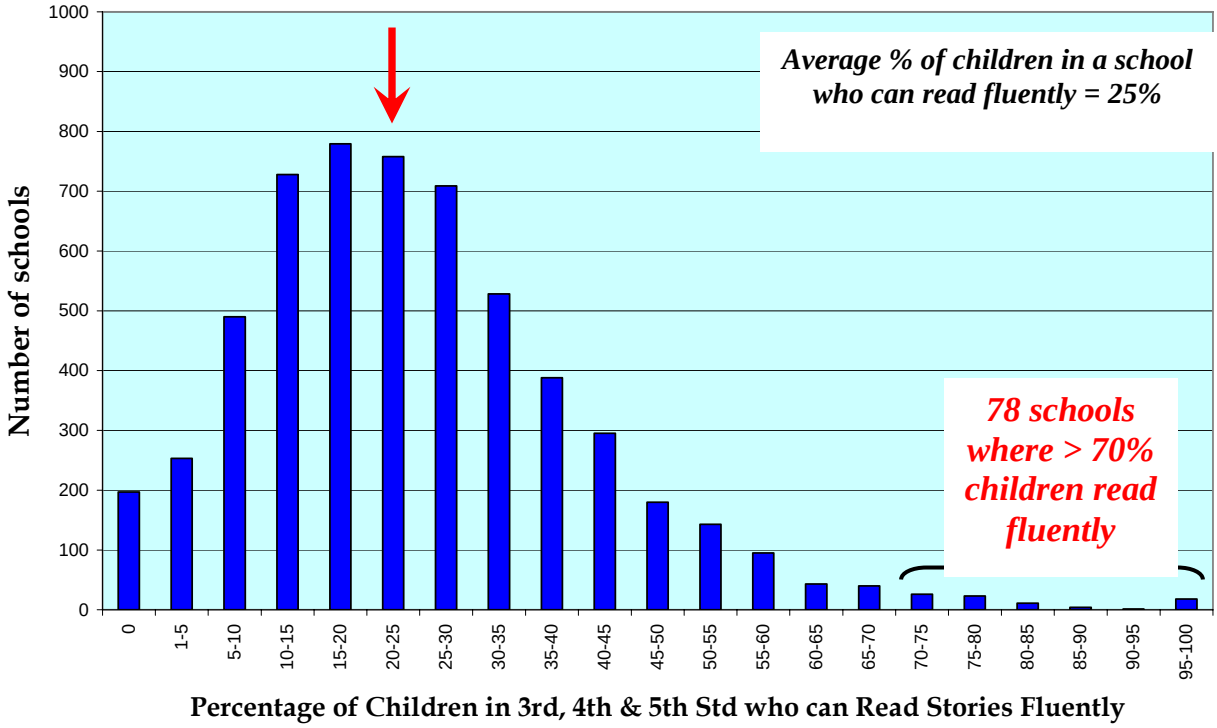

Attractive Story Posters and Graded Story Cards makes children ***Want*** to Read!


Learning through level specific activities and children help children

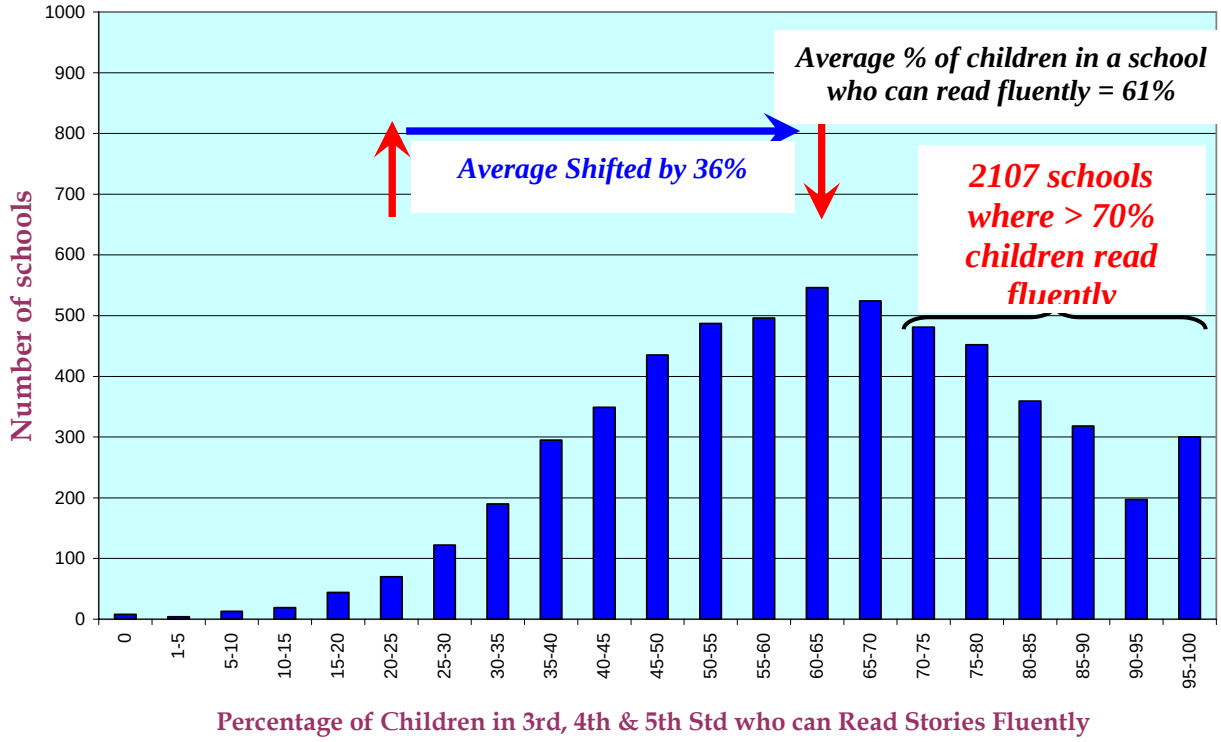
The program involves an initial evaluation of children's reading skills and groups them into 5 different levels. This is followed by daily 1 hour of level specific group activities for each level. Each school is also given a set of graded reading materials and story posters that excite children and makes them 'want to read'. The program also employs child-to-child learning methods.

Evaluation Results showed that the children in 5th std reading fluently went up from 35% to 69% - almost doubling! Children who could not even identify letters went down from 13.4% to 1.85%. A detailed analysis of the improvements is shown in the graphs below. In the beginning of the program there were only 78 schools out of 7300 schools that had more than 70% children reading fluently. Within 5 months of the program, 2107 schools had more than 70% children reading fluently! The 36% shift in the peak of the graph which points out the average reading levels is also obvious.

October 2006 (At the Start of Padippum Inikkum)



March 2007 (5 Months of Padippum Inikkum)



This program has positively impacted about 4,50,000 children. This is both an example of the scalability of our approach as well as the measurable improvement we are able to demonstrate within a short period. Though the reading level improvement is very important, the program is simultaneously also bringing in other changes in the system:

- Most teachers who earlier thought of activities as merely "distracting games", now realize that activity based learning can be a good tool to achieve concrete learning objectives.
- Thousands of teachers have got a practical introduction to skill based evaluation. A slow but growing demand has started from teachers for a focus on basic skills instead of exam marks in other subjects as well.
- In 7300 schools, this program is getting teachers to sit down with children in small groups – as equals.
- In most schools, teachers are realizing and using the power of children teaching children – in other subjects as well.
- Many teachers have also been inspired to make their own teaching-learning materials.

Ariviyal Anandam Science Education Program

130,000 children in 900 schools learn and **demonstrate science experiments** and concepts thanks to the Ariviyal Anandam Science Campaign.

For the last 6 years we have been developing a collection of low cost science experiments and also developing science dialogues as a way to get children to think about science concepts and to link their observations of the world around them with the science they learn at school.

Through the Ariviyal Anandam program we have trained teachers on these experiments and provided them kits, posters and manuals to use in class. The atmosphere in these schools is completely changed. Children wait for the science class, get the kits out and do experiments on their own. In many schools children have started coming up with their own experiments!

For the first time, children are asking a lot of questions about what they see. Teachers reported that in the science exams, many students are writing answers in their own words quoting examples from the real world around them! (Usually children just memorize passages from the science textbooks and write it verbatim.) For the first time 130,000 children are realizing that **Science is Real**!

Eureka Village Library Program: "Library in a Bag"

90,000 children in 2000 villages are regularly accessing books and participating in library activities.

We started the innovative Eureka Village Library "Library in a Bag" Program in 2005. Today, in 2000 villages we have the library program running – reaching out to 90,000 children. In each village, a local volunteer maintains the library bag and circulates the story cards and books to children. Every month we also organize activities (games, fun events, outings, etc) around the library. The local community participates actively in the library activities. In many of the libraries children have also been organized into children's clubs. These clubs meet once a week to try out science experiment, math puzzles, etc. In many of the libraries, volunteers have taken up the reading program. They have also been working with the local schools – visiting it regularly and organizing events in the school.

The library program is a demonstration of how the community can be actively involved in the education process. It also shows how once the community is involved in education issues, they also begin to pressurize schools to deliver better quality.

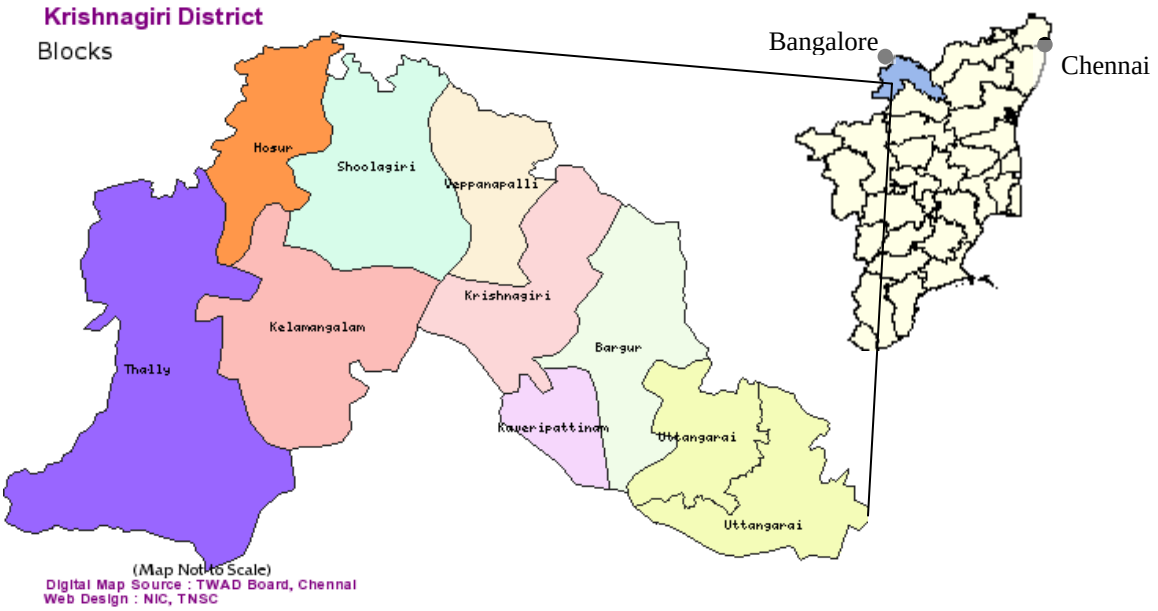
We still have a long way to go. What we have done so far is only a pilot demonstration of what is possible. We need to intervene in other areas like Maths, Primary Science, English and Life Skills. But even in an issue like the reading problem, what we have done is only a short-term demonstration (though on a large scale). We need to ensure that schools are continuously supplied with good reading materials and children have access to it. We need to ensure that children are not merely reading fast, but are also reading materials that are at the level expected for their age. We need to keep working on the reading problem in the same areas for at least 3-5 years before the reading problem is permanently solved.

Specific Proposal for Krishnagiri District:

What has been done so far is a just a demonstration of what is possible on a large systemic scale. This effort needs to be strengthened and integrated with more programs. This integrated set of programs need to be continued for 8-10 years for us to see systemic irreversible improvements in the learning quality of all children in a district.

About Krishnagiri District:

Krishnagiri District is one of the districts where we have already initiated the Reading Campaign and the Science Campaign. The district is one of the poorest and educationally most backward districts in Tamilnadu. The district has 10 blocks – Shoolagiri, Krishnagiri, Bargur, Kaveripatinam, Uttangarai, Kelamangalam, Mathur, Thally, Veppanapalli and Hosur. Each of these blocks has about 100 schools and 100 villages. There are totally 1100 schools in the district.



AID INDIA Team in Krishnagiri:

We have a strong team of volunteers and fulltime staff in all the 10 blocks. We also have an excellent district level fulltime team which is led by the district coordinator Smitha Kalyani. Smitha, an engineer from BITS Pilani, quit her lucrative job in Wipro and joined AID INDIA fulltime to work on our educational program. With her commitment and personal example, she has been able to motivate and train a large volunteer team in Krishnagiri district and build up the capacity within the district to implement large scale high quality educational interventions across the district.

AID INDIA has been able to build up an excellent rapport with the Education Department, the District Collector, UNICEF and with a number of local NGOs. This multi-pronged partnership approach helps our team reach out quite easily to even the remotest schools and villages in the district.

Proposed Overall 7-year Action Plan with Time Line and Expected Impact:

The following table gives the action plan spread out over 7 years to bring about permanent irreversible improvements in the learning quality status of Krishnagiri district.

7 year Overall Plan: June 2007 – May 2014

Programs	Time Line and Specifics	Expected Impact
Improving Quality in Educational Institutions: Schools and Anganwadi Centers		
Tamil Reading Campaign	**2007-2008:** All 1100 schools. Focus on Remedial action. **2008–2009:** All schools continued. Pre-reading skills in Balwadis. Ensure children learn skills early enough. **2009-2010:** Age appropriate reading skills. Reading activities integrated across curriculum. **2010-2012**: Consolidate the gains.	All children reading fluently. Age appropriate reading. Reading to understand other subjects.
Secondary Science Education Campaign	**2007-2009:** All 400 middle and high schools. Focus on Children doing science expt and conducting science melas. **2009–2011:** All 400 schools continued. Focus on projects, science skills and scientific concepts. Network of children good at Science Experiments. **2011-2012:** Further focus on scientific concepts even as science experiments and projects integrated into the regular curriculum. Network of science teachers. **2012-2014**: Consolidate gains. Systems to continuously improve teacher's understanding of science concepts. Systemize science exhibitions and experiments by children.	All children doing experiments. All children with basic scientific skills. Better understanding of concepts and scientific thinking. Access to opportunities for children very interested in science.
Pre-primary Skills Campaign	**2008-2011:** All 1160 Anganwadi centers. Focus on Visual, Math, Motor and Social skills and Pre-reading skills. **2011–2014:** All 1160 Anganwadis continued. Consolidating the gains made and making measurement of children's skill levels and activities to improve a part of the Anganwadi's regular program. Improving quality of the centers with continuous supply of learning materials. Training and focus on more advanced skills.	All children achieve basic visual, math, motor and social skills. System focus on learning skills in Anganwadis. All children know basic alphabets and numbers before joining schools.
Primary Math Skills Campaign	**2007-2010:** All 1100 schools. Remedial arithmetic intervention. Geometry and shapes skills intervention. **2010–2012:** All schools continued. Systemize math skills learning from 1st standard. **2012-2014:** Integrating math activities and problem solving skills across curriculum.	All children know basic 4 arithmetic operations. Math skills used by children to solve simple problems. Math-Phobia Reduced.
Secondary Math Campaign	**2009-2010:** All 400 middle and high schools. Math Puzzles and focus on estimation, geometry, measurement and algebra. **2010–2012:** All schools continued. Focus on math skills useful in life. Use of math skills in practical problem solving. **2012-2014:** Consolidate gains in basic skills. Networks and programs for children/teachers interested in advanced skills.	Basic math skills for all middle school children. Math used for problem solving. Math-Phobia reduced.
Primary Science Campaign	**2009-2011:** All 1100 schools. Introducing small science projects and observations. Focus on science reading and discussion. **2011–2014:** Consolidate gains. Change science teaching system – make it entirely project and activity based.	Children's Excitement in science activities and science reading. Systemic change in teaching science by doing.

Community and Non-Institutional Initiatives to Improve Learning Quality		
Programs	**Time Line and Specifics**	**Expected Impact**
Village Libraries Program	**2007-2008:** Village Libraries in 400 villages. Focus on reach and usage. **2008–2010:** Enriching the 400 libraries and expanding to 1000 libraries – in every village. Initiate community learning centers in some libraries. **2010-2014:** Consolidate the libraries. Organize, train and support a team of volunteers who intervene effectively in schools to improve learning quality.	Create reading habit in children. Community mobilized and made aware of learning quality issues. All children have access to learning resources at home.
Children's Club Program	**2007-2008:** Sample program in 100 village libraries. Organize children into science/math, language and sports clubs. **2008–2011:** Expanding the clubs to all the villages. Ensure regular activities and projects through the clubs. **2011-2014:** Consolidate the children clubs and strengthen its quality.	Opportunities for every child to pursue special areas of interest. Creating local teams with domain expertise in each field.
Teachers and Children's Networks	**2007-2008:** Identification of innovative teachers and children interested in doing a lot more. **2008–2010:** Creating networks for teachers and children – that meet regularly to experiment, share ideas and create resources. **2010-2014:** Getting these networks to create models and examples that influence the education system.	Setting standards for what is possible even in a poor rural environment. Generating innovations that are scaled up through the networks.
Community Support to Schools and Anganwadis	**2009-2014:** As possible and as necessary. Community members visiting schools, understanding learning quality issues and helping school teachers who want to improve the quality.	Helping the system in its attempts to improve.
Community Pressure Campaigns	**2009-2014**: As possible and as necessary. Pressurizing teachers and education officials to deliver quality. Public measurement of learning quality and campaigns to generate awareness and pressure to improve. Functioning as an education watch system.	Pressurizing the system to correct itself when it fails to deliver.

Clearly things don't end at the end of 7 years! But 7 years is a substantial period to see the clear visible permanent difference that has been made in the learning quality situation across the district – at least in the achievement levels in basic skills. One will need to further continue the work to improve learning quality in more advanced skills – but that is beyond the scope of this current proposal.

Proposed Detailed Action Plan for the period from June 2007-May2008:

Program	Scale	Plan	Expected Impact	Measure
Tamil Reading	All schools.	Focus on Remedial action in schools.	Major improvements in number of children reading fluently.	District wide Pre and post reading level assessments
Primary Math Skills Campaign	All schools.	Remedial arithmetic intervention.	Increase in number of children who know the 4 arithmetic operations.	District wide Pre and post math skills assessment
Secondary Science Education Campaign	All middle and high schools	Children doing science expt and conducting science melas.	All children doing experiments.	Random testing in schools and demonstration of experiments by children in science exhibitions
Village Libraries Program	Libraries in 400 villages.	Focus on reach and usage.	Ensuring regular usage of learning resources by children.	Register of usage and sample evaluation of randomly selected libraries.
Children's Club Program	Clubs in 100 villages.	Organize children into clubs - science/math, language and sports clubs – that meet regularly and do activities.	Creating opportunities for children to pursue special areas of interest.	How often are the clubs meeting and what activities are the children are doing.
Teachers and Children's Networks	300 innovative teachers and 500 talented children	Identification of innovative teachers and children and forming a network – with a few workshops to launch the network.	Recognition within the organization and within the network members that that such teachers and children exist.	Identification, workshops and documentation of case studies.

Budget for 1 year (June 2007-May 2008):
Budget Per Block

Program	Scale/Block	Budget Line Items	Budget/Block
Tamil Reading	100 schools *10000 Children*	People = 3 people x Rs. 2000 x 12 months = Rs. 72,000 Materials = 100 schools x Rs. 400 materials = Rs. 40,000	Rs. 112,000
Primary Math Skills Campaign	1100 schools *10000 Children*		
Secondary Science Education Campaign	All 40 middle and high schools *6000 Children*	People = 2 people x Rs. 2000 x 12 months = Rs. 48,000 Materials = 40 schools x Rs. 500 materials = Rs. 20,000 (Govt and UNICEF will supply the balance of the materials – worth about Rs. 2000/school.)	Rs. 68,000
Village Libraries Program	Libraries in 40 villages *2000 Children*	People = 1 person x Rs. 2000 x 12 months = Rs. 24,000 Materials = 40 libraries x Rs. 1500 materials = Rs. 60,000 Exposure and Learning Events for children at library and district levels = Rs. 6000	Rs. 90,000
Children's Club Program	Clubs in 10 villages *300 Children*		
Teachers and Children's Networks	30 innovative teachers and 50 talented children	Materials = Rs. 2500 Network workshops = Rs. 2500	Rs. 5000
Program Support		Training and Monitoring = 5000 Coordination for all programs = 7500 Travel and Transport = 7500	Rs. 20,000
Administration		Administration = 5,000	Rs. 5000
Total Budget for One Year for 1 Block			**Rs. 300,000 $ 7000**
Total Budget for One Year for Entire Krishnagiri District (10 Blocks)			**Rs. 30,00,000 $ 70,000**

Total number of children reached = 200,000
Cost per child = Rs. 15 = $ 0.35

This is a really low cost per child for the kind of impact that is planned. This is possible because this program leverages schools, other NGOs and a number of disconnected and disparate educational interventions and brings them all together to improve the overall quality of learning.

Of this Rs. 30,00,000 overall budget, we expect to raise Rs. 10,00,000 from a number of local sources – including the government, UNICEF, etc. Therefore we request Asha Seattle to support the balance funds requirement of Rs. 20,00,000 ($ 48,000) to support the overall district program.

UNICEF has already committed to supporting a part of the science program through the Government. The Government website – http://www.back2school.in/ has two of our programs listed on the front page – Padippum Inikkum and Ariviyal Anandam.

Funds requested from Asha Seattle = Rs. 2,000,000 = $ 48,000

Future Requirements and Plans

We will require similar budget for the next 4-5 years at least and each year we will submit a detailed report and proposal for the next year. The overall plans for the next 7 years were already presented earlier.

Reporting

We will submit a detailed activity report every two months with photographs and list of activities undertaken. Every six months we will submit an expense report and request for the next installment. At the end of the year, we will additionally submit a detailed "process and results report" which will look at overall improvement in the skills level of the children apart from a complete analysis of the activities undertaken to bring about these changes.

Appendix to EQUIP TN Proposal

The matrix below shows the Age vs Skills matrix. Every cell needs to be strengthened. But while we will continue experimenting in the other cells, we have decided to focus our energies on 3 major skills – Tamil, Math and Science and from the pre-primary to upper primary age group. As can be seen, we are already working quite deeply in some of the cells in this focus area – in Tamil for Primary and Science for Upper Primary. We will continue this focus and strength the cells for Math for Primary and Upper Primary and Science for Primary. We will also strengthen the Pre-primary integrated skills campaign. The aim is to get all the programs into blue color in the "top left cells".

Education Programs Matrix

	Tamil	Math	Science	Social Science	English	Life Skills	Art Music	Sports
Pre-Primary (Nursery, KG) (3-5 year olds)	Balwadi Skills Campaign: Basic Visual, Math, Motor and Social Skills							
	Eureka Schools, Tamilnadu Alternate Schools Network							
Primary (1st - 2nd Std) (5-7 year olds)	Reading Campaign Village Libraries Teachers Network							
	Eureka Schools, Tamilnadu Alternate Schools Network							
Primary (3rd - 5th Std) (7-10 year olds)	Reading Campaign Village Libraries Teachers Network	Math Campaign	Science Projects		Spoken English		Lib Activity	
	Eureka Schools, Eureka Learning Centers							
Upper Primary (6th-8th Std) (10-14 year olds)	Village Libraries Tuition Network	Math Activities	Science Expt Prog Science Projects Science Clubs Teachers Network Science Libraries		Spoken English		Lib Activity	Sports Clubs
	Eureka Learning Centers, Eureka Children Festivals, Mentorship, Exceptional Children's Network							
Secondary (9th-10th Std) (14-16 year olds)	Village Libraries Tuition Network		Science Dialogues		Spoken English	Health Class		
Hr. Secondary (11th-12th Std) (16-18 year olds)			Science Dialogues			Health Class		

Color Key	*Basic Skills Programs for all Children*	*Advanced Skills Programs for selected Children*		
Development Stages for a Program	*Fully Developed*	*Developing*	*Action Research*	*Initial Stages*