



Technology to enhance learning in Elementary Schools

An innovative experiment in West Godavari district of Andhra Pradesh

The "Project Rural e Seva (e Services)" of the Government of Andhra Pradesh brings governance to the people using technology. In West Godavari district this innovative experiment is bridging the digital divide. Access to various C2C (citizen-to-citizen) and C2G (Citizen-to-Government) services are provided using technology.

e Seva kendrams (centres) were set up in all 46 Mandal head quarters of the district. 15 Self Help Groups (SHG) and 21 rural youth trained and supported by the district administration run these centres. These centres offer a variety of services such as collection of electricity bills, issue of various certificates to the citizens and handling grievances against administrative machinery. Based on this concept, village public telephone centres (ISDs) were converted into Rural Service Delivery Points by upgrading them into internet access centres with a computer and accessories. These centres also provide C2C and C2G services.

In November 2003, there were 140 centres.

Within a short period, these centres have gained tremendous support from the rural population, bringing the people closer to the government. People's trust in this model is vital for the future developmental programmes of the government.

e Seva Centres as educational centres: a computer lab for schools

These centres were being used early in the mornings and later in the day, with a noticeable slack in the day time. Seeing this window of opportunity, the District Administration of Eluru in partnership with Azim Premji Foundation initiated a simple model to leverage this for education of school children. Azim Premji Foundation, had in 2001 signed a Memorandum of Understanding to partner with the Government of Andhra Pradesh to realize Universalisation of Elementary Education.

Children from the government elementary schools learn using computers at these centres with no incremental investment. A model was evolved to leverage the investment in these centres to provide computer-assisted learning through curriculum based educational content in local language to children in the age group of 6 - 14 years.



Azim Premji Foundation, a not for profit organization, set up with a vision of transforming the lives of millions of children through catalyzing Universalisation of Elementary Education is partnering with the District Administration in this initiative. Azim Premji Foundation provides educational content and trains the representatives of the centres to use the content and enhance learning.

The programme commenced in September 2003 in 60 centres with Chiluka *Palukulu*, content in Telugu language for beginners.

Centres with a local primary school in the vicinity were identified for the programme. Most of these schools have a student population of around 200 children. These children in batches of 20, accompanied by a trained teacher visit the centres. Each child gets 30 minutes of computer time every time they visit the centre (sharing the computer with four other children). Each group of children visits the centre once in 10 days. Even though the operational time a student gets is limited, the exposure is high. Within a short span of time this programme gathered momentum.

These centres which are run for profit generate their own revenue for sustenance through the various commercial services. For the educational service they provide to the school children, they are paid by the government a fee of Rs. 2 per child per month.

In October 2003 the programme was extended to all the 140 e Seva centres, thereby reaching 28,000 children. Additional seven CDs covering Mathematics and Science in Telugu were added to the Telugu language content provided at the beginning of the programme.

An innovative experiment: Leveraging the existing investment

The ultimate example of innovation is to make work seem like play. For children who are occupied in the class room to learn, making learning a joyful experience is a reward in itself.

Historically, innovation in learning has come through interactive process of dialogue, guided exploration and experimenting, story telling and questioning. The development of computer technology with its facets of multimedia, animation and integrated voice provides the opportunity to combine all these measures into one innovative learning method. The single biggest stumbling block to achieve this is the quantum of investment required to make this happen on a large scale.

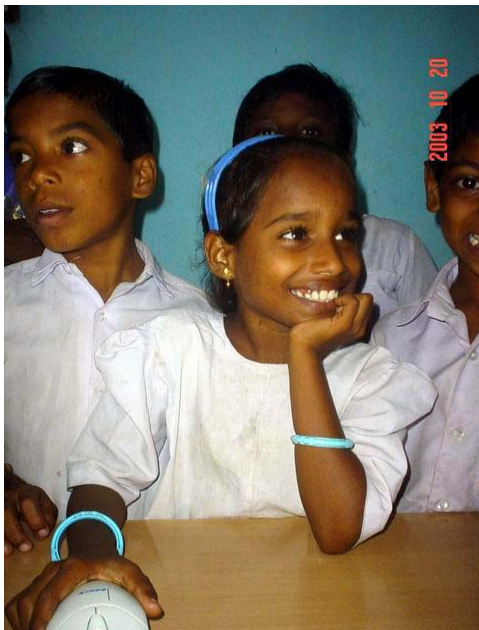
In the West Godavari district of Andhra Pradesh, the presence of 140 e Seva Kendrams and Rural Service Delivery Points provided an opportunity to leverage existing computing infrastructure to deliver joyful learning to children in primary schools. The multimedia, animated, story based educational content created by Azim Premji Foundation in Telugu was the catalyst to leverage the existing infrastructure to deliver joyful learning experience to over 16,000 children in the first month.

Linking one primary school to one e Seva Kendrams or Rural Service Delivery Points, where 10 children each day use the existing computing infrastructure for learning the CD based content mapped to the curriculum at an incremental cost of Rs.2 per child is a model that can be adapted across all e-Seva Kendrams in Andhra Pradesh. Or for that matter across rural India where investment in computing infrastructure is already made.

Initial impact

Students participating in the programme showed marked difference in their eagerness and interest to learn. Considering that the students have visited the centres only thrice in September 2003, they recite most of the rhymes in the CDs. They recollect their learning. Children also try and relate their learning to real life situations.

Observers feel that the programme in its limited time has demonstrated potential and can be extended to other districts of the State.



Dr. K Ganeshwar Rao, B.Ed college lecturer, Eluru, feels that the programme may even be as effective as the midday meals programme run by the government in getting children regularly to school. He felt that the level of interest generated is very high compared to the traditional educational schemes.

Dr P.J. Kutumbha Rao, another lecturer from the same college stated that that this will be quite effective a scheme for improving the learning capability of children.

Students are also of similar view as they wait impatiently for their precious turn in using the computer. Using a computer at this early age was not even in their dreams. Nagamani, a student of MPUP School in Ungunture says, "For me it's easy to recollect when I see something and then learn." Asked if learning through computers would help her, she says "when I grow up I will become a teacher and

with the help of the computer, I'll help other kids of my place to learn."

It is not only Nagamani, many others like, Arunakumari, Aanusha, Prasad, Shekar, Shiva from Buttiyagudem MPUP school and many other schools who feel the same way and are looking forward to the new content that is provided to them.

The teachers on the other hand have mixed opinions about the programme. Some like Shashikala of MPUP Ungunture School feels, "this will make our task of teaching easier. Children watch the CD and while teaching if we come across the same words, they quickly relate to the words they have learnt from the CDs." The head teacher of the school, Murali Krishna proudly says, "I send my children to Govt School because I still believe in this system. Now through this scheme, IT is coming to our doorsteps."

Meanwhile some teachers like Krishnaveni of MPUP School Ungunture feel, "it is a waste of precious time to take students to the centre, half the time is lost in making them sit. We want computers in our school."

The District education officer, Mr. Prasada Raju quotes, "there are instances in certain schools like Kamavarapakota and Palekola where some students have shifted from private schools to government schools, because of the computer exposure provided to the children."

The community support that the programme is gaining is something that has to be seen to be believed. In Lingapalem, the parents have arranged for an autorikshaw to drop and bring back the children from the kendrams to the school. Parents of Vijayalakshmi Lakshmi, Ammani, Padma and Pedintulu, are aware that their children are learning computers. They say, "It is computers everywhere, from the railway station to the banks. We don't know how, but exposure to the computers is surely going to help our children."



Mr. Satya Sai Baba, Director of National Informatics Centre, Eluru, opines, "The government has to take forward the programme to other districts as well as to the student who have already acquired the basics from the initial CDs". Satyanarayan, Mandal Education Officer of Buttuyagudem opines, "Our model can be taken to the whole country within a few years." And that sums it all.

While these are very positive reactions and feedback on an innovative experiment, it must be noted that this is the very initial phase of the programme. Like all innovations, here too, it would be essential to run a thorough research to evaluate the impact of this exposure to curricular CD and computer assisted learning on the learning achievement of the children.

The sample of the educational content provided by Azim Premji Foundation to e Seva Kendrams



References:

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- Memorandum of Understanding between District Administration, West Godavari District, Andhra Pradesh and Azim Premji Foundation, August 2003
- Azim Premji Foundation's internal document on "Concept note on 1 PC model"
- Visit reports to e Seva Kendrams by Prema Narasimhan and colleagues, Azim Premji Foundation, September and October 2003
- <http://www.westgodavari.org/>