

Pratham Computer Assisted Learning Centers



Rationale

Till a few years ago, the obvious advantages of, a sound knowledge of, Information and Communication Technologies (ICT) of the 21st century were limited to students from a restricted section of society.

Pratham's CAL Program aims to make the advantages and benefits of early exposure and familiarity with computers available to a wider cross section of society and level the playing field across geographical and socio-economic boundaries.

In India, statistics estimate that out of 1.25 million schools *only* 2-3% have any Computer program.

Objectives

1. Bridge the digital divide in government and government aided schools and enable children to experience technology and computers
2. Use computer technology to positively impact children's learning levels.
3. Impact children's learning in competencies like math and language skills as well as in domain knowledge like science, history, geography etc
4. Expose school teachers to computer technology and train them in its potential usages
5. Increase parental and community interest in computer technology and its uses in school education.
6. Use IT to help in school management
7. Train community youth in computer technology (after school hours).

About Pratham CAL project

Pratham's experiment with use of technology through Computer Assisted Learning (CAL) in education started in 1998 with the setting up of 15 centers for municipal school children, which was made possible by a donation of 112 computers, from ICICI.

Currently, Pratham runs 128 CAL centers covering over 55,000 children daily in 17 Districts spread across 7 States in urban, semi-urban and rural locations.. States include - Rajasthan, Haryana, Maharashtra, Gujarat, Delhi, Punjab and Uttar Pradesh. Our partners for this project have included IBM, Bharti, Lucent, Reliance, BILT (Ballarpur Industries), USAID and The Paul Hamlyn Foundation. The computer labs in the schools are also utilized to train community youth in various computer related applications such as TALLY (accounting software), MS Office, DTP etc in off-school hours.

Methodology

Our approach is holistic and project management oriented. We look at hardware, software relevant content, (some of which we develop in local languages and is pertinent to school syllabi and the rest we source from other partners), as well as other critical issues like school management participation, teacher training, community mobilization etc. All these facets together influence a child's learning and therefore we focus on all of them together.

At its core the model revolves around setting up computer centers in government or government aided schools catering to economically under privileged children. The

establishment of the centers happens in three main phases. The first phase includes the selection and finalization of schools. During the second phase the CAL center is set up which includes Instructor recruitment/training, Curriculum/Scheduling, Hardware set up etc. In the final phase, students are enrolled for the program and session commences. The evaluation of the effectiveness of the program on learning levels of students is done through pre-test, mid-test and post-tests that are conducted during the academic year. The results from these three tests are then compared to see the change in learning levels of students across the year. Monitoring is also done at regular intervals and overseen by the Pratham-CAL Executive Team.

Software content such as educational games etc. designed by Pratham and IBM's Edmark series designed by Riverdeep are available to students for learning various subjects such as Mathematics, English, MS Office etc. in the CAL centers. Full-time instructors are selected and placed in the schools where the Computer Centers have been established. All the instructors receive an orientation and basic training in curriculum, educational software and administrative systems.

Outcomes

1. Daily about 55,000 children are trained.
2. Till date over 85,000 children and about 22,000 youth have been trained.
3. The CAL program has shown positive impact on children's overall enrollment, attendance and retention.
4. Community and parent interest in schools with computer centers have also increased.
5. In order to assess the impact of the CAL program on the learning levels of the children, MIT (Massachusetts Institute of Technology, USA) in partnership with Pratham conducted a study on the program in Gujarat. Research was conducted by Dr. Abhijit Banerjee, Ford Foundation International Professor of Economics, Massachusetts Institute of Technology. Ph.D., Harvard University & and Dr. Esther Duflo, Castle Krob Associate Professor of Economics, Massachusetts Institute of Technology, Ph.D., MIT titled "Computer-Assisted Learning: Evidence from A Randomized Experiment" (You can visit site-<http://www.povertyactionlab.com/projects>). Main Results of the program were that the math scores of children who participated in the CAL program improved by 0.31 standard deviation.

Sustainability

Pratham believes that in India 'Sustainability' is a key variable that critically influences any developmental effort at the grassroots. Over time, therefore, we have been very mindful of variables, which make a project sustainable.

Keeping this in mind, Pratham works from the commencement of any CAL partnership at exploring ways in which the communities, which benefit from this project are able to fend for themselves and run the model on their own.

This involves activities for parents, governments, local Mandals/Samitis etc for

- Resource mobilization
- Strengthening participation
- Organizing involvement
- Increasing contributions

Thus, it is critical that within a 3-4 year time frame we explore and establish ways by which the community can get the necessary motivation and support to ensure long term sustainability.

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