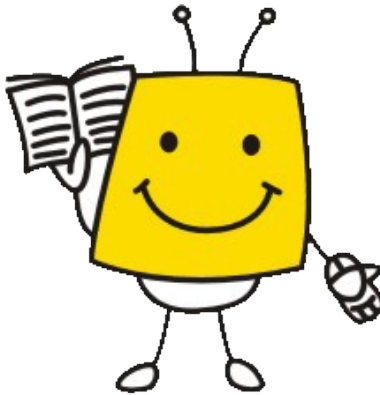


**Computer Assisted Learning Program**

**Annual Report**

**(April' 08 to March' 09)**



**From,**

**Pratham InfoTech Foundation**

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### **Executive Summary:**

This report states the various trainings and other educational activities held during the period from April' 08 to March' 09. This includes the report from our Computer Assisted Learning (CAL) 189 Computer Centres spread across 7 states in India namely Maharashtra, Delhi, Uttar Pradesh, Rajasthan, Gujarat, Haryana and Punjab since its inception serving over 1,25,000 children and youth since its inception. Today, our presence in the 189 centres which include Government unaided, Government – aided, Private, Nagar Parishad, Zilla Parishad, Municipal Council and Municipal Corporation level.

Over the years, Pratham has partnered with various well known organizations like IBM, Bharti Foundation, Syntel, Volkart Foundation, Lucent, St. Gobain, Tata Power, Sir Dorabji Tata Trust, Bharat Petroleum Corporation Ltd. (BPCL), Reliance Ballarpur Dist. (BILT), Sanchar and The Paul Hamlyn Foundation.

The activities conducted are designed keeping in mind children's interests, which helps them to understand and learn in a playful manner. Here, the Team Leaders and the Sancharaks put in their efforts to provide quality education by abiding to the Project Based Learning method, which enables the children to understand and learn easily; also the Central Training team looks after the trainings to be conducted for the school teachers, the Sancharaks (Instructors) and the children in order to keep them updated on the latest IT and other such educational activities.

This report also contains brief information on the Training methods, the curriculum, Pratham games, the CAL content, the evaluation methods used, the program monitoring techniques, etc. educational activities held in the schools for the school children.

*Please refer the Annexure on page for details.*

## A. Trainings:

### (A) Sancharak Training in Jaipur:

*Venue: Jaipur*

*Period: October, 2008*



The  
trainees making practical projects

### **Objectives of the training:**

- Improving the Sancharaks' computer efficiency.
- Enabling the handling of computer machines.
- Upgrading the Sancharaks with the latest educational software and Pratham games.
- Introducing them with new / revised syllabus.

The training was conducted for four days and it was attended by 19 Sancharaks.

The basic objective of the training was to teach Sancharaks to provide education to the children through 'Project Based Learning Method'. This would enable the students to learn faster and in a more effective manner.

The training started off with an introduction to Pratham's educational software like Jigar I, II, III and IV. Based on the new syllabus, the trainees were given the knowledge of the educational software. The educational games were demonstrated and the Sancharaks were asked to practice them on the computer so as to understand the way the games will have to be taught to the students. The Sancharaks were then given an opportunity to explain what they understood of the game, its importance and the competencies that they can teach the children. The trainers also explained ways to improve the learning process of the students – by improving their reading level, building their vocabulary through paragraph reading and sentence formation. The Sancharaks were divided in groups of 5 to 6 members and were asked to prepare projects based on various social subjects like Save Water, Save Trees, Pollution Control, Eating Habits

etc. on paper as well as on the computer. The Sancharaks were also trained on basic hardware and the new reporting format through MIS system.

The Sancharaks were seen enthusiastic after attending the four days of the training and also participated actively.

**(B) Software Training:**

*Period: 3 days (September 25 to 27, 2008)*

*Venue: Govt. Primary School, Gurgaon*



**Mr. Hotam Prakash, Principal of Govt. Primary School, Gurgaon seen inaugurating the training**

Pratham organized a software training for the sancharaks in Gurgaon for a period of 3 days. Mr. Hotam Prakash, the Principal of the school inaugurated the training program with his speech on computer and its importance in education. The training was conducted by three Pratham volunteers and taught the sancharaks the Pratham's educational software like Jigar I, II, III and IV.



**(Left)-The**



**Training**

**Banner displayed at the School's Gate, (Right)-The Sancharaks during an activity**

The sancharaks were asked to practice the educational games in a group of two, in order to make them familiar with the games. Later the training was continued by providing the sancharaks with the project work based on various educative topics like save rain water, save

tree, computer parts, pollution, eating habits etc. Other educational software like Edmark and Riverdeep were also introduced to the sancharaks.

**Material Provided:**

The sancharaks were provided with stationery (card paper, glue, scales, scissors, color papers, etc) to make their projects.

(C) **Hardware Training:**

This training was immediately followed by the software training in the Government Primary School, Gurgaon. It was a basic hardware training, which enabled the sancharaks to identify with the computer hardware and its basic working. The basics taught were troubleshooting, hardware and software installation, CD writing, etc. The main objective behind holding such a training was to help make the sancharaks computer friendly.

(D) **MIS Training:**

The hardware training was followed by the MIS training, which enabled the sancharaks to understand the reporting format and data collection and management. They were provided with a precise format with which they would easily record the data and use it as and when required.

(E) **Software Training:**

- The training started off with an 'Ice-Breaking' Activity, which helped the trainees get familiar with each other. The trainees were formed in a group of 2 members each and were asked to introduce each other.



**Trainees during the activity**

- The Pratham volunteer trainers took charge of the training by kick starting the contents of the training i.e. overview of computers, teaching the educational games like Jigar I, II, III and IV. The trainees were then asked to practice the games on the laptops.
- The trainees were given some practical projects, such as preparation of a TV channel logo, a company's logo etc. This was to introduce them to creative methods of teaching MS Word formatting tools like line color, auto shapes, word art, text wrapping, text editing, fill color, provide borders etc.



**Trainees preparing the given project-based tasks**

- Trainees were asked to prepare power point presentations using different commands like slide transition, custom animation, word art, clip art, background, etc.
- The trainees were then given an assignment based on the educational contents taught to them. This was used to gauge improvement in their learning post the training.



**Trainees displaying their project (left) and trainees active on the laptops**

Along with the assignment a post test was conducted to test the trainees' MS Office skills.

**(F) Training for Sancharaks:**

*Period: 4 days (June 11 – 14, 2008)*

*Venue: Amchi Shala, Mumbai*



**Seen in the picture are the Sancharaks practicing in the computer lab during the training course**

Training on new syllabus and MIS was provided to 4 sancharaks appointed for the school. The Team Leader for the Mumbai Eastern Zone - Ms. Prajakta Mistry along with 4 senior sancharaks took charge of the training. The training started off with a brief overview of Pratham given to the Sancharaks along with the training for the syllabus designed and reporting system. Sancharaks were trained in practically on the computers to aid them in conducting project – based classes with the students. The training conducted based on the new syllabus for standard V to VIII.

The content of the training remained the GIF Animation, Use of Hardware Devices, DTP, Pagemaker and Coreldraw software, which enabled the complete training package.

Following mentioned were the highlights of the training:

Theory projects on computer like its awareness, overview, documentation, power point, basic word processing, use of spreadsheet in excel, mail merging, image variation etc.

Practical projects included mouse and typing skills, image variation, sound recording, usage of media and entertainment, scanner and web camera or digital camera, animation, image editing, graphic designing, etc.

**(G) Training of Sancharaks:**

*Venue: Kharghar*

*Dated: June, 08 (Period: 4 days)*

*No. of Trainers: 7*

*No. of Trainees: 65*



**Objectives of the training:**

- Making the trainees understand and practice the Pratham InfoTech software
- Competencies related to Pratham InfoTech's and the school's programs
- Providing guidance to the trainees related to interaction with children, parents, and school authorities.
- Providing the trainees with the game information and also demonstration.
- Providing guidelines on the method of testing for Language and Math.
- Providing basic information on data management.

**Material Provided:**

The trainees are provided with the Training Manual in the local language so as to ease the communication.

(H) **Computer Training for the Out of School Children:**

*Month: May, 2008*

*Period: 10 days*

*Venue: Saraswati Vidya Mandir*

- This was a period of summer vacation for the students.
- Basic Computer Training was provided to the non-students (out of school children).
- Total of 50 children participated in the computer training.

A total of 32 children participated in the computer training by paying a nominal fee of Rs. 50/- each.

(I) **Computer Training for Sancharaks based on the New Syllabus:**

*Month: June 17 to 19, 2008*

*Venue: Saraswati Vidya Mandir and Amchi Shala*



**The Sancharaks practicing the new syllabus taught in the training**

- Training was organized for the Sancharaks from Panvel and Mumbai wherein a total of 17 sancharaks participated.

- The main aim of the training was to keep the sancharaks updated with the new syllabus of Std. 5<sup>th</sup> to 7<sup>th</sup> in computer context.
- Two Team Monitors and 3 Sancharaks were responsible for the training program.
- There were a few new sancharaks amongst the 17 sancharaks, who were provided an additional training for the syllabus of standard 1<sup>st</sup> to 4<sup>th</sup>, which is why not more computer periods were conducted in the lab.



**The Sancharaks understanding and practicing the projects based learning concept**

The training was a success and the sancharaks who participated are well aware of the new syllabus and are capable to teach the students in a similar manner.

(J) **Basic Hardware Training:**

*Date: February 26, 2009*

*Venue: Saraswati Vidya Mandir School No. 1*

Pratham had provided scanners and printers in 9 Panvel Nagar Parishad schools for which, a basic hardware training was arranged for the sancharaks to make them friendly with the provided hardware and its operations. The training was attended by 21 school teachers and 11 sancharaks.

The training was provided by two hardware engineers from Sanchar PC Solutions, who made two groups of the trainees, who not only made them friendly with the hardware, but also answered the queries asked. The trainees seemed to be satisfied with the training and became confident enough to handle the hardware.

**B. Activities:**

**(a) Project Based Exhibition in a centre run under Bharti Foundation:**

*Venue: Shivai Vidya Mandir, Bhandup (E)*

*Date of the exhibition: 15<sup>th</sup> to 18<sup>th</sup> October, 2008.*

**Pratham  
viewing**



**Volunteers  
projects**

**prepared by the students**

**Secondary School Project Exhibition (Standard 5<sup>th</sup> to 8<sup>th</sup>):**

- The students prepared theory projects based on New IT Syllabus. For e.g., Document Construction, Basic Word Processor, Mouse Skill, Typing Skill, Image Variation, Slide Developing, DTP – PageMaker, etc.
- These projects were based on what was taught in the computer lab sessions.
- These projects were made by students on an individual and group level.
- This exhibition was organized to focus on the students' learning skills in computer.
- The projects made were well guided by the Sancharaks and the school teachers.



**'Best out of Waste' Activity, Information Gathering Activity (Standard 9<sup>th</sup> & 10<sup>th</sup>):**

- The projects were such that students collected images to create desktop wallpapers, searched for various educational sites and gathered information about the 7 wonders of the world, favorite cricketer, sports and other interest areas.
- The students prepared various articles out of the waste materials like disposed boxes. The students prepared dolls, computer machines of the boxes, wall pieces, thermocol houses, etc.

The exhibition was attended by the students, parents, school teachers, Pratham sancharaks (Mumbai & Raigad Zone) and Pratham volunteers.

**(b) Drawing and Hand-writing competition for children of standard I to IV:**

*Dated: September 5, 2009*

*Venue: Jagatpura Sr. Secondary School, Jaipur*

A hand-writing competition was organized for the children of standard I and II; and a drawing competition for children of standard III and IV on the occasion of Teachers' Day. The school children were seen actively participating in the competitions, as it was a part of their interest. The children drew colorful drawings with bright and beautiful colors, while the children who took part in the hand-writing competition, were also seen creative with various artistic writings, which made the judges difficult to choose the best. The children were given two hours for the competition.

The judge - Mr. J. P. Mishra, the principal of the school, selected a few best drawings and hand-writings and declared the winners, while the Sancharaks presented the prizes to the winning children. After the competition, they had a small refreshment and a short picnic, wherein the children were taken to visit the famous and nearby picnic spots in Sawai Madhopur, Shiwad and Ranthambore. The children enjoyed the picnic as they got to spend time with their friends and seemed to have fun and loved the visit.

**(c) IT competition for the children of standard I to IX:**

*Dated: February 20, 2009*

*Venue: Dilshad Public School, Delhi*



## Children seen preparing the hand craft articles and giving their practical exam during the competition

Dilshad Public School organized for an IT competition for standard I to IX children, which was divided into two sections viz. Hand Craft and Practical Exam of 10 and 20 marks respectively. A few of the topics in the Hand craft competition included drawing and coloring the computer parts, collage work, best out of waste, preparation of charts of computer parts, use waste CDs and prepare productive computer articles.



**Children displaying their creations out of the IT concept**

The practical exams included the following mentioned topics:

Standard	Topics
I	Steps of starting JIGAR I & II (through Keyboard) & playing the game
II	How to start games (through Keyboard) JIGAR I & II
III	Steps to starting JIGAR I, II & Edmark (through Keyboard & Mouse) & playing the game
IV	Steps to start the JIGAR IV, Edmark & Riverdeep (through Keyboard & Mouse) & playing the game
V	<b>Paint</b> : (Steps to start Paint Brush; Draw any Picture, Open New File, save your file) Create a Folder on the Desktop & Paste the file in the created Folder
VI	<b>MS-Word</b> : Opening a file, Cut, Copy & Paste; Formatting the Word document, save the file; Make a greeting card
VII	<b>MS-Word</b> : Opening a file, Cut, Copy & Paste, Formatting the word document, Save the file, Hyperlink & make an Invitation card
VIII	<b>Ms-Power Point</b> : Prepare a presentation of 4 slides using the Background, Custom Animation commands & prepare a slide show
IX	<b>Ms-Excel</b> : Open a new workbook, Cut, Copy & Paste, Use the command Auto-sum & Create a Time Table, Calendar & Attendances Sheet and Save the workbook

A huge participation of children was seen as the competition was based on the topics that were being taught to them in the computer lab. The children found this competition very interesting and made efforts to give their best as it can be seen in the pictures.

Pratham provided the children with the following materials required for the competition:

Glaze papers	Chart Papers	Fevicol Glue	Scissors
Painting Brush	Pencils	Drawing Sheets	Crayon Colors
Sketch Pens	Markers	Cello Tapes	Registers
Pens	Scales (Rulers)	Waste CDs	Card Papers

**(d) IT Examination for the children of standard I to VIII:**

*Dated: December 22 & 23, 2008*

*Venue: Shraddha Public School, Delhi*

Shraddha school of Delhi organized a similar IT competition for the children of standard I to VIII, wherein they were expected to give a theoretical and a practical exam on the taught computer syllabus consisting of 10 and 20 marks respectively.

**Children during the practical exam in the computer lab**



The following table provides the detailed list of topics allotted to each standard:

Std.	Topics
I	<b>Steps of starting the JIGAR - I &amp; II</b> (through Keyboard) & Playing games.
II	How to start games (through Keyboard) JIGAR – II & III
III	Steps to start Paint & Practicing Paint& JIGAR-III
IV	<b>MS-Word:</b> Opening a file , cut, copy & paste, Formatting the Word document, Save Your file
V	<b>MS-Excel:</b> Open a New workbook, save your workbook ,cut copy & paste, use of Autosum function  MS-Word: Opening a file , cut, copy & paste, Formatting the Word document, Save Your file, Creating a Table
VI	<b>MS-Excel:</b> Open a New workbook, save your workbook, <b>Cut Copy &amp; Paste</b> , use of Autosum function  MS-Word: Opening a file , cut, copy & paste, Formatting the Word document, Save Your file, Creating a Table
VII	<b>MS-PowerPoint:</b> Making one presentation including 4 slides with backgrounds ,Custom animations & Give slide show to them  MS-Paint: Steps to start Paint Brush, Draw any Picture , Open New File , Save Your file
VIII	<b>MS-PowerPoint:</b> Making one presentation including 4 slides with backgrounds ,Custom animations & Give slide show to them  Paint: Steps to start Paint Brush, Draw any Picture , Open New File , Save Your file

**(e) Drawing Competition:**



**The children engaged in the Drawing Activity**

The IBM Daksh volunteers in accordance with Pratham wished to hold a drawing competition for the Dhundhera School, Gurgaon. This competition was for the children of standard IV. This activity was undertaken in the presence of 11 IBM Daksh and Pratham volunteers and 2 school teachers respectively.



The

School

**children displaying their hand-made drawings**

The children were asked to make drawings on the topic of their own interests. The school children enthusiastically participated and were rewarded with chocolates for their efforts. The children were also guided by the volunteers during the entire activity. The best drawing received gifts from the volunteers as a token of appreciation.

**(f) Organizing Competitions and generating awareness**

Since the month of November, marked the occasion of Children's day (14<sup>th</sup> of November), we conducted Art/Essay competitions in the 13 schools in both Basti and Lucknow.

Approximately 1,500 students from both these districts participated in the competition and were awarded First, Second and Third prizes in their respective competition.



**Participants at the art/essay competition at SPV Inter College and Master Public School, Lucknow**

Besides this schools also included the CAL centres in their academic activities. Aryan Public School in Lucknow used the computer project details from the Pratham curriculum while organizing their yearly exhibition. Another school, SVP Inter College also used the CAL center to organize its annual function.

**(g) Commencing the library program in the Lucknow centres run under Sir Dorabji Tata Trust:**

The library program consists of providing both the Direct and Indirect Schools with a set of 200-250 books by Pratham to start a library corner in their premises.

In classes with high student strength, the class is divided into two batches. While one batch works on the computer theory/practicals, the other half of the batch can utilize the time reading interesting books meant to help children attain a wholesome education.

These libraries will be run and monitored by the fellows and trainer monitors through logbooks, records and documentation as with the CAL centres. The library program has been delayed a little due to Pratham working on developing more technology-oriented material for students to read. The library program will be initiated and in operation in the direct and indirect centres by the end of December.

**(h) Project Exhibition for standard V to IX in school run under Syntel:**

We held a one day exhibition of the projects prepared by the secondary section students (Std. V – IX). Volunteers from Syntel actively participated in this exhibition. They helped a lot in arranging the projects and also distributed prizes to students whose project was the best. Students had prepared projects based on various competencies.



The exhibition was visited by the School Principal, all the school teachers and students. It was the first such an activity was organized in the school. Students were very happy to see that their projects being displayed. Syntel volunteers were also very happy to see the efforts put in by the students.

**(i) Workshop on Theory project in school run under Volkart Foundation:**

*Period: November 3 to 5, 2008*

*Venue: Panvel Nagar Parishad School No. 3*

The workshop was held for the sancharaks to make them well aware of the theory projects to be taught to the school children. It was conducted for 3 days, wherein each day was allotted for preparing projects of every standard i.e. standard V to VII.

The sancharaks from Panvel Nagar Parishad schools gathered in a huge amount and were provided with the guidelines for the preparation of the projects. This idea was to make available the self-made theory projects with the sancharaks, which will enable them to easily and effectively teach the children in their academics. The materials required for the same was provided by Pratham. At the end of the workshop all the sancharaks were ready with their self-made theory projects, which they were expected to teach the school children throughout the academic year.

The concept of theory projects evolved so as to make the studies easier and more interesting to the children.

**(j) Creative activities on the Children's day in schools run under Volkart Foundation:**

*Date: November 14, 2008*

It was a special day for children, as it was the occasion of Children's Day, therefore the sancharaks and the school teachers planned to organize various educational and fun competitions like Drawing, Rangoli designing and project making based on the taught syllabus. This was held in four Panvel Nagar Parishad schools, namely Kanya school, Takka Marathi school, Podi school and Dagdi school for children of standard I to VII. The children were found participative and also enjoying their day.

A small prize distribution ceremony was organized by Pratham for the children who did their best in the competitions. Having not participated, the non participant children regretted and were inspired from the overall conduct and wished to willingly participate the next time. The children enjoyed the day and wished to have more of such activities in their academics.

**(k) Theory project of children from standard V to VII:**

*Dated: January 28 & 29, 2009*

Children of standard V to VII prepared the theory projects based on the computer syllabus. Exhibition of the same was done, which was inaugurated by the member of education committee and other dignitaries. The children who prepared the projects gave information on how the projects were made based on their syllabus, and how it helped them in their regular studies. They also displayed the practical projects taught like animation, etc. to the dignitaries. The dignitaries were impressed by the children's efforts and praised them for the same.

**C. Visits Made**

**(A) Visit by the Management officials of Microsoft:**



Management officials from Microsoft visited the Mandigaon school in Delhi in December, 2008 to have a look at the working of the Pratham CAL program and also noticed the progress of the children in their studies after the introduction of the program.

Mr. Anoop Gupta, one of the management official commented in the visit register of the school:

*“It was really exciting to see such a clean and organized lab, providing great opportunity to the children to learn computer skills. It was good to learn the use of refurbished computers and custom software developed by Pratham. They would learn faster through computer games.”*

**(B) Visit by the Bharti Audit Department officials:**



Four management officials from Bharti Foundation (Auditing Department) visited three schools in Delhi, namely Mandigaon School, Shraddha School and Anand Vidya School. The officials who paid the visit were Mr. Himanshu, Mr. Pramey Jain, Ms. Prerna and Ms. Bhawna, who monitored the hardware being used, the methodology of teaching, reporting format, children's lab attendance and staff's participation in the program. The visit was made at the end of February 2009.

(C) **Visit made by the St. Gobain Management Officer:**

Mr. Prakash Sabarad from St. Gobain paid a visit to the Training Centre on July 17. He observed the pedagogy, saw the projects prepared by the students and obtained a copy of the new syllabus. He seemed impressed with the way the training was being imparted to the students.

**Annexure:**

A. **Introduction to the Computer Assisted Learning (CAL) Program:**

Pratham InfoTech's Computer Assisted Learning (CAL) Program was initiated in 1998, and has expanded in 7 States, serving over 1,25,000 children and youth since its inception. Today, our

presence is in 189 centres which include Government unaided, Government – aided, Private, Nagar Parishad, Zilla Parishad, Municipal Council and Municipal Corporation level.

The objective of the CAL program is to reach out to all the children from disadvantaged backgrounds, who do not have the opportunities for exposure to IT like other children. IT training in professional institutes is unaffordable for them. Pratham aims to spread the vast knowledge of computers among these children according to their age.

Our approach has always been holistic and program management oriented. Our experiences across 7 States have made us mindful of the different facets that influence a child's learning and also the multiple variables that contribute to the overall success and sustainability of a Centre. Thus the execution of the CAL Program is always locally pertinent and contextually relevant, taking into consideration innumerable criteria.

The preliminary stage involves careful selection of partner schools, recruitment/training of teachers, community mobilization, curriculum finalization, development of teaching-learning aids and base line testing. Classes are kept small to ensure individual attention and optimal learning. The Hardware used is of a high quality and the software includes that developed by Pratham in local languages designed around school curriculum.

To make certain that desired goals & outcomes are being achieved, Evaluation and Monitoring is done at regular intervals and overseen by the CAL Executive Team.

Sustainability is also a key component of the project plan. Thus, CAL implementation also involves motivating stakeholders from school managements, parents, Government entities, local bodies etc to get involved, lend resources, share ownership and eventually lead the program independently.

Each CAL Centre that we set up plays a vital role in emphasizing and demonstrating to the local stakeholders the essential role of ICT in education today. Research across the world, conducted by IBM, and reinforced by our own anecdotal evidence has shown comprehensively that the use of IT in early learning has a positive impact on children's concentration, application, engagement, motivation and attainment. A study by MIT, USA concluded that Math scores of children who participated in the CAL program improved by a 0.47 deviation. Our experience also shows that the Centres are instrumental in attracting children to school, creating enthusiasm around the learning process, improving MIS systems of schools, developing teacher capacities,

involving parents more in their children's education, training local youth etc. Thus the benefits and beneficiaries are numerous.

**B. Training and Content Development:**

The training content has been designed in such a way so as to help the child to recognize his interest area and skill and take a career decision in the different fields of computers at an appropriate age. The training provided is also sufficient for the student to take up a job related to IT after school in case his circumstances do not allow him to pursue further education.

**Focus of the Training Content**

**Primary School (Std. I – IV):**

The training for the primary school students mainly focuses on their school syllabus. With the aid of computers and educational software designed by Pratham, we try to enhance the child's basic competencies such as knowledge of number, operations on numbers, geometry, recognition of vowels and consonants, word formation, basic English vocabulary, pronunciation, recognition of measurements, recognition of direction, map reading, social studies and general knowledge.

**Secondary School (Std. V – VII):**

The training provided to secondary school students is designed as a Project-based Learning module in which the focus lies on Office Automation, Animation and Internet. Through the Project-based learning, students link their day-to-day activities and surrounding incidences with technology. With various activities which they do with and without the help of computers, they are made aware of the latest in IT in the market. Some of the activities that the students do are work on MS Office for general office administration purposes; preparing publicity material like prospectus, pamphlets, print advertisement; resume writing, letter writing, writing news articles, making MS PowerPoint presentations etc. The Project-based learning has proved very useful for students to memorize computer commands as compared to regular pedagogy method.

**Higher Secondary School (Std. VIII – X):**

The training designed for higher secondary students offers an opportunity to specialize in Graphics and Programming. In Std. VIII, the training focuses on graphic designing skills in which the students learn how to prepare news layouts, print advertisement, pamphlets, fashion designs, designs for CD inlay covers, and magazine layouts with the help of applications like Corel Draw, Photoshop and Pagemaker. In Std IX and X, the training focuses on Programming

skills in which students learn C, HTML, Access, Visual Basic. This training gives the student an understanding of software development and helps him/her to make a career choice in the field. Along with knowledge on software, workshops on computer hardware are also held for STd. X students.

### **Teaching Learning Materials**

Drawing from the extensive experience and research of Pratham's community based educational programs (*Balwadi, Balsakhi, Bridge Course, Learning to Read, etc*) running across urban and rural centres throughout the country, our in house team of content developers, software programmers, and graphic designers introduced the 'JIGAR' series. Over time, this has been modified and upgraded with animation, sounds, changes in syllabi, incorporation of user feedback etc. Some key features of our software include -

- Spoken English is based on the Indian accent as opposed to the American / European accent which is often difficult for children to comprehend (*emphasizing clarity of diction and pronunciation, which has been done by professional dubbing artists*).
- In addition we have also especially developed local language software in Hindi, Marathi and Gujarati. Plans to expand into Telegu, Kannada etc. are on the anvil
- We always use pictures, details and animation that are relevant and contextual to the Indian environment, facilitating recognition and grasping of concepts.
- The content has been developed in co-ordination with the SSC syllabus
- The software is completely interactive and game based – ensuring learning is fun!
- The different games and levels have been made compatible for students with no previous exposure to computers and to the more experienced learner. Gradually building him/her to higher levels of competencies - usage of multiple keys, increasing speed, complex operations etc.
- The software allows flexibility of use by giving the schools the freedom to focus on competency areas that they want to build / reinforce.
- Can easily be used on Celeron configuration

### THE JIGAR SERIES

Targeted at students in Std I, II, III and IV

Based on the syllabus set by the State Board of Education, Maharashtra

### **JIGAR I**

- Focus subjects are Language and Math
- Helps the student improve his basic mathematical skills of addition, subtraction and number recognition and improve pronunciation of words
- This program is available in Marathi, Hindi and Gujarati

#### **Module Details -**

**HAMLA** – The player will help the warrior break into the fort by attacking various bricks, which contain answers to various problems of addition, subtraction of single and double-digit numbers that are to be solved by the learner.

**AARPAAR** – This game allows the player to combine various vowels and consonants given in order to produce new words. It allows the learner to listen to the sounds as well.

**BASKETBALL** – The player reads the given one, two or three-digit number on the screen and then helps the elephant in the circus play basketball by making it throw each numbered ball available into its corresponding basket, which represents the place of digit of that number.

**TOLMOL** – The game revolves around a story of a monkey and a cat where the cat has to select and place the right answer of the given problem (addition and subtraction) on the weighing machine that helps it get some food from the monkey.

**KABHI AAGE KABHI PEECHE** – This card game allows the player to arrange the number in the correct sequence of ascending and descending order.

**THE SHOOTER** – The player reads a word that has missing blanks and then from a given array of moving words he shoots at the right missing word that completes the given word.

**MUMBAI DARSHAN** – Two friends travel to various parts of Mumbai in a train, which moves only when the player is able to identify the right category of the given object out of the given options.

**JEWEL THIEF** – The player has to grab the diamond at the 6th floor of a building that can be reached only by pairing up the right cards (e.g. tooth-toothbrush) given at each floor, which allows the player to proceed to the next one.

#### **JIGAR II**

- Focus of this program is at helping learners who don't use English as their first language get acquainted with the right pronunciation and recognition of words
- Due to the original audio recording that includes the reading of rhymes and stories, the accent is not American or British so the children have no problem comprehending it.

- This program is available in English

#### **Module Details -**

**AAR PAAR** – Learners can form new words by combining various consonants and vowels given in the form of a matrix. It also allows the learner to listen, read and write the given words and sounds

**MAMAJI FRUITWAALA** – The player helps a little girl, called Tara arrange Mamaji fruitwala's shop by selecting and placing the fruits on their given position on the shelf that contains the label of all the fruit names. This involves identifying the picture with the name at one level and the identifying the sound with the written word at another level.

**KAKAJI VEGETABLEWAALA** – this is also the same as the 'Mamaji fruitwaala' game except that it helps the children learn about the various vegetables.

**STORIES AND POEMS** – There a set of simple stories and poems that can be heard word by word by the listener. They use colorful pictures and interesting themes like 'the lion and the mouse' or 'Who ate the butter?'. Sets of activities like 'fill in the blanks' also ensure that children have understood the story well.

**JUNGLE YATRI**– The player helps two people Josh and Hosh release various animals in the different sanctuaries in India by identifying the correct name of each animal.

**CAT AND MOUSE** – The player has to answer ten questions that help the mice keep save their lives from the cat and in the end win a gold pot.

**ARCHER** – The archer's arrow contains vowel sounds that have to hit the right pair of consonant falling from the top in order to form a word.

**TREASURE HUNT** – The correct pairs such as of same pictures, pictures and their names, same words have to be identified from two given sets of cards in order to win the game.

#### **JIGAR III**

- Focus on improving their reading and writing skills.
- With the help of different games, the user will be initiated into reading, identifying words and writing (typing). This will also get the user familiar with the keyboard and increase his speed.
- The program is available in English.

#### **Module Details -**

**STORIES AND POEMS** – Interesting stories and poems using colorful pictures are read out to the students slowly word by word. The student then able to answers a set of questions that are again read out to her at one level and asked in a written form at the next level.

**TRAFFIC JAM** – The player helps the traffic policeman control traffic by helping him place the vehicles and other things at their respective places. The player has to coordinate the sound of the name of the object with the picture of that object.

**ACTION** –The player has to select the correct word from a given list that represents the action being performed by a set of school children.

**AAR-PAAR** – The player can listen, read, pronounce various sounds and words and also create new words from these.

**TIDY UP** – The player helps a little boy tidy up his room by selecting the object that is shown on the screen and placing it at the right place by moving the boy in various directions. The player gets to learn the names of various objects and also the concept of various directions.

#### **JIGAR -IV**

- Targeted to Learn math the fun way
- Focus on four basic applications and
- Introduction to geometry, concepts of time etc
- The program is available in Marathi, Hindi and Gujarati.

#### **Module Details -**

The player will have to help *Alibaba* (from *Alibaba and the 40 thieves*) with his addition, subtraction, multiplication and division.

**SHAPES**– enables the player to build her own dream house by using various shapes such as triangles, rectangle etc.

**TIME** – enables the player to read time on a clock and get acquainted with the concept of hours, minutes and seconds on the clock.

**WEIGHT** – enables the player to get acquainted with the concept of kilograms, grams etc.

**MEASUREMENT** – enables the player to learn about various scales of measurements such as millilitre, litres etc.

Besides the educational softwares, a vast array of Teaching Learning Materials like **Workbooks, MS Office tutorials, Posters and Project Materials** are used especially for Secondary and Higher Secondary School students to bring variety in teaching methodologies used by the teachers.

**Training Content Development Team**

Almost all the members associated with executing the CAL program are directly/indirectly involved in preparing the content for the training. Of these, 8 members work full-time for content development taking feedback from the other field workers from time to time. These members have been associated with Pratham for almost 8 – 10 years. They all have undergone professional training in MS Office, Languages and Multimedia etc. They all have worked as Prathamaks on the field and have 4-5 years experience in teaching children. They also have experience in conducting Computer training programs for Pratham staff and other youth.

C. **Teacher Selection and Training:**

Teachers are usually selected from the surrounding communities as an initiative to develop the community around the centre. An in-house team has designed and executes the selection process. Bio-data of candidates with undergraduate and graduate backgrounds and training in MS Office and DTP are invited. An initial screening of these candidates is done after an interview.

The candidates then attempt an Oral exam, in which they are asked questions and marked according to the difficulty level of the questions they answered correctly. They then, attempt a written exam of 30 minutes carrying a weightage of 15 marks in the overall scoring. 2 sets of question papers are set which try to gauge the candidate's knowledge of Operating Systems, MS Office; general knowledge; logic, reasoning and attitude. Only candidates who score more than 50% in the oral and written exams are selected for a 4 – day training – cum – final selection program.

The 4 day training program begins with a Practical exam of 40 marks. Throughout the training, the candidates are trained on the syllabus prepared for the level of students they will be teaching when recruited. Along with this syllabus training, training is provided on how to improve reading skills, how to handle children in different situations, reporting patterns in the organization, personality development, appropriate behavior expected with parents, teachers and other school authorities and how to train children using different methodologies. Group activities are conducted to test the candidate's presentation skills, ability to work in a team, decision making capacity and maturity to handle situations which carry 30 marks. Individual activities are also organized which test the candidate's communication skills, confidence level, body language and presentation skills and carry 15 marks.

The teachers are finally selected from those scoring the highest.

**Refresher training**

Refresher training takes place twice in a year – once during Diwali vacation and another during summer vacation. These trainings are conducted with the help of external resource persons. In-depth knowledge of a particular Application, knowledge of what's new in the IT market (irrespective of whether it is in the curriculum or not), latest technology update, training in personality development, training to improve English are given to the trainees. In group activities, project banks are prepared which the teachers can forward to their students. There is a platform provided for experience sharing, problem sharing and discussion of solutions.

The refresher training also guides the Sancharaks on how to conduct competitions, exhibitions, child activities, quizzes for the children and how to conduct Parents' meeting in the school. These parents' meetings are held once at the beginning of the academic year and again in February in which Sancharak's responsibility is to increase awareness among parents about technology, about what their child is learning at the CAL centre and its importance in the child's future.

#### **(a) Student Testing and Evaluation**

##### **Primary School Students:**

These students are tested once at the beginning of the academic year (Pre Test) and again at the end of the year (Post Test) using a Dipstick method in Mathematics, Reading and Writing. Student is tested with the help of written and oral exams in mathematic operations, is scored and graded according to his competency on the levels of Division, Multiplication, Subtraction, Addition, Number recognition and 0 level. The student's reading competency is also graded at the levels of Story, Paragraph, Word, Alphabet and 0 level. The student's writing ability is tested when a sentence is spoken and the child is/is not able to write it.

##### **Secondary and Higher Secondary School Students:**

These students are tested in Computer Proficiency at the end of the two semesters in their academic year (Mid Test and Post Test). Both these tests are based on the syllabus completed in the respective semester. They carry a weightage of 100 marks of which 30 marks are testes through a written exam, 40 through practical exam, 20 through the projects they prepared in the semester and 10 according to their class behavior (attendance, concentration, teamwork. active participation, workbook completion)

#### **(b) Program Monitoring:**

The CAL program has an in-built process of data collection and consolidation for monitoring itself.

Reports based on the following aspects are prepared monthly by collecting data from the Sancharaks:

1. **T.M. Summary Report** – information on the total number of children in the respective school housing the centre, total number of children of these who are undergoing IT training and attending the computer lab sessions, number of batches of students trained vis-à-vis planned.
2. **Hardware Report** – status of the computer machines installed in the computer lab, frequency of occurrence of hardware problems and their resolution
3. **Syllabus Report** – status of syllabus completion (For Std. V – VII only)
4. **Attendance Report** – School and Lab attendance, Class average attendance

For maintaining data, the Sancharaks are given the following registers from the organization:

1. **Total attendance** – Student school and lab attendance (monthly)
2. **Hardware Register** – Records when the problem occurred and when it was resolved
3. **Syllabus Register** – Syllabus completion for Std. V – X (monthly)
4. **Guest Visit Register** – Details of the guest visit along with comments and photograph
5. **Students Attendance Register** - Student school and lab attendance (daily)
6. **Team Leader Register** – Records when the TL visited, the purpose of the visit and the observations made
7. **Sancharak Daily Book** – Maintained by each Sancharak about the topic (daily)

From the above-mentioned registers, a copy of the Hardware, Total Attendance and Syllabus Register is collected by the Team Leader of the Zone by the 2nd of the next month. From these reports, the Team Leader prepares a consolidated report. On the 7<sup>th</sup> of the month, reports are collected from all TLs and a report of the CAL program is prepared. We then, get to know the status of the program and an understanding of which aspects of program are going well and which need more attention. For instance, if batches are not being held as scheduled, what is the problem, and how it can be solved; followup with hardware department if computer hardware problems are occurring frequently and not being resolved; reason for syllabus not getting completed as scheduled. After a check of all these aspects, plans for next month are made accordingly.

Besides data collection, a Team Leader visits a centre thrice in a month. During these visits, the TL checks the lab condition, teaching methodology of the Sancharak, syllabus status, material usage for projects, projects made and register maintenance. A TL also organizes a monthly

meeting with all Sancharaks in his/her zone during which s/he has a discussion about the CAL program, problems being faced if any and any new idea to improve the service offered to the children.