

# INTERIM REPORT ON EVALUATION / IMPACT ASSESSMENT OF ICT@SCHOOL PROJECT FOR WEST BENGAL



*Prof. Amit Hazra*

**Principal Investigator (PI)  
ICT@School Project  
Visva-Bharati  
West Bengal**

## **BACKGROUND**

The scheme of Educational Technology (ET) was started in 1972 during the IV Plan. Under the scheme 100% assistance was given to 6 State Institutes of Educational Technology (SIET) and the States/UTs were assisted for procurement of radio cum cassette players and colour TVs. Further, in recognition of the importance of role of ICT in education, the Computer Literacy and Studies in Schools (CLASS) Project was introduced as a pilot project in 1984-85 with the use of BBC micros. The project was adopted as a Centrally Sponsored Scheme during the 8th Plan (1993-98) and its scope was widened to provide financial grants to educational institutions and also to cover new Government and Government aided secondary and higher secondary schools. The use and supply of software was limited with coverage confined only to higher secondary Schools.

The National Task Force on Information Technology and Software Development (IT Task Force), constituted by the Prime Minister in July, 1998 made specific recommendations on introduction of IT in the education sector including schools for making computers accessible through the Vidyanthi Computer Scheme, Shikshak Computer Scheme and School Computer Schemes. Smart Schools were recommended on a pilot basis in each State for demonstration purposes. It was also stipulated that 1 to 3% of the total budget was to be spent on provision of computers to all educational Institutions upto Secondary and Higher Secondary level during the next five years. Based on the experience gained so far, a need for a revision of the scheme of ICT @ Schools was felt on the following grounds.

1. Expansion with emphasis on quality and equity: A need was felt to expand the outreach of the scheme to cover all Government and Government aided secondary and higher secondary schools in the country with emphasis on educationally backward blocks and areas with concentration of SC, ST, minority and weaker sections. Along with that, there is a need for ensuring dependable power supply where the electricity supply is erratic and internet connectivity, including broadband connection.
2. Demonstration effect: There is a need to set up smart schools at the district level to serve as demonstration models for neighbouring schools.
3. Teacher engagement and better in-service and pre-service training: Since ICT education will be imparted to all secondary and higher secondary students, an exclusive ICT teacher is required for each school. Similarly, there is a need for pre service as well as in service training of all teachers in effective use of ICT in teaching and learning process.
4. Development of e-content: There is also a need to develop and use appropriate e-content to enhance the comprehension levels of children in various subjects.
5. A strong mechanism for monitoring and management needs to be set in place at all levels for ensuring optimal delivery of set targets.
6. The Scheme envisages that the School Management Committee, Parents Teachers Association and local bodies would be involved in the programme management along with the setting up of an online web-based portal for real-time monitoring and transparency. In addition, independent monitoring and evaluation is envisaged.

Accordingly, the Scheme has been revised, with the approval of Cabinet Committee on Economic Affairs (CCEA) on 9th January 2010, for implementation during the remaining period of 11th Plan.

## **Components of the Scheme**

The scheme has essentially **four** components.

The first one is providing computer aided education to Secondary and Higher Secondary Government and Government aided schools.

The second is the establishment of smart schools, which shall be technology demonstrators.

The third component is teacher related interventions, such as provision for engagement of an exclusive teacher, capacity enhancement of all teachers in ICT and a scheme for national ICT award as a means of motivation.

Fourth one relates to the development of e-content, mainly through Central Institute of Education Technologies (CIET), six State Institutes of Education Technologies (SIETs) and 5 Regional Institutes of Education (RIEs), as also through outsourcing.

## **MANDATES :**

### **Expansion of coverage of schools**

It shall be the endeavor to bring all Government and Government aided secondary and higher secondary schools under the ambit of the scheme, subject to the availability of budgetary provision. Priority would be given to educationally backward blocks and areas with concentration of SC, ST, minority and weaker sections.

### **Infrastructure**

**Hardware and software:** Each school would be provided with 10 PCs or 10 nodes connected through a server. Accessories like printers, projection system etc will also be provided. Keyboards would be customized for use in the regional languages.

**Connectivity:** The first *priority* would be to have a ***broadband internet connection of at least 2 MBPS bandwidth in each school.*** Wherever that is not possible, connection of lower bandwidth would be provided with plan to upgrade in future. Wireless links would also be explored.

**Power Supply:** *Wherever the power supply is unreliable, it is proposed to provide assistance for purchase of a generator, as a back up only and also its recurring cost, subject to a maximum of Rs.1000 per month, in addition to Rs 1000 per month for the electricity charges. In areas where there is no power supply, solar generated power should be made use of.*

**Computer Room/Lab:** *The computers would be installed in one of the safe rooms in the school. If such rooms are not available, the need can be met from the scheme Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in case of Government schools.*

### **Mode of implementation**

States would be encouraged to implement the programme through a BOOT model under which the supplier would make available the ICT infrastructure for the duration of the contract period (normally five years) on the basis of a service level agreement and assurance of a periodic payment subject to satisfactory maintenance. The release of Central assistance in that case would be spread over the contract period. In exceptional

cases where such arrangements are difficult to implement, ICT infrastructure can be procured on 'Outright Purchase Basis'. The State Govt. shall be free to partner with private organizations or integrate it with other similar schemes for implementation of the 'ICT in schools' scheme including providing for maintenance. The implementation of the scheme will be multi-modal. The Ministry of Human Resource Development shall consider the entry of the private sector in a Build-Own-Operate or annuity modal wherever possible. The direct procurement of hardware by the State would be last resort. The National Council for Teachers Education shall be associated with the scheme in the context of training of teachers in computer-aided learning. The Rehabilitation Council of India would play an important role in projects involving introduction of use of technology for the education of children with special needs.

### **Financial Parameters**

Under the class component of the Revised ICT scheme, the Union Government would provide 75% of financial assistance to State/UTs. The balance 25% of funds would be contributed by the State Governments/UTs. Assistance shall be provided to Northern East States, including Sikkim, in the ratio of 90:10. The assistance of the Government of India would be for the following items and upto the limits indicated against each item:

#### **A. Assistance to States/ UTs for ICT infrastructure in each school**

| <b>a.</b>   | <b><u>Capital Expenditure</u> (Non-recurring)</b>  | <b>(Rs. in lakhs)</b> |
|---|--|-----------------------|
| 1.  | 10 PCs (or one Server with 10 Terminals), 1 Projector, 1 Printer, 1 Scanner, 1 Web Camera, 1 modem, Broadband antenna, Generator/ Solar Package, UPS, video camera, etc. | 5.10                  |
| 2.  | Operating System & Application Software  | 0.20                  |
| 3.  | Educational Software and CD ROMs   | 0.45                  |
| 4.  | Furniture  | 0.25                  |
| 5.  | <i>Induction training in ICT to teachers for 10 days @ Rs. 400/- per day (average of 10 teachers).</i>   | <i>0.40</i>           |
|   | <b>Total</b>   | <b>6.40</b>           |
| <b>Note: The cost includes Annual Maintenance Contract for a minimum period of 5 years.</b> |  |                       |
| <b>b.</b>   | <b><u>Recurring</u></b>  |                       |
| 1.  | Computer Stationery (Printer cartridges, CD-ROMs, DVD, paper, etc.)  | 0.80                  |
| 2.  | <i>Electricity charges @ Rs. 1,000/- p.m.</i>  | <i>0.12</i>           |
| 3.  | <i>Expenses on Diesel /Kerosene for generator @ Rs 1,000/- p.m.</i>  | <i>0.12</i>           |
| 4.  | Telephone charges @ Rs. 500/- p.m.   | 0.06                  |
| 5.  | Internet / Broadband charges   | 0.10                  |
| 6.  | <i>Teachers' salary @ Rs. 10000/- p.m.</i>   | <i>1.20</i>           |

|    |   |             |
|----|---|-------------|
| 7. | Refresher training for 5 days to teachers @ Rs. 400/- per day (average of 10 teachers). | 0.20        |
| 8. | Management, Monitoring and Evaluation   | 0.10        |
|    | Total   | <b>2.70</b> |

It may be noted that even in the revised norms, it is proposed to have greater in-built flexibility. *The State Government would have the option to incur expenditure on the above items or any other items like generators, preparation of labs for computers including civil repairs and cabling, etc. depending upon their needs and resources, subject to an overall maximum limit of Rs.9.10 lakh per school {Rs.6.40 lakh (non-recurring) and Rs.2.70 lakh (recurring)}. The Central Government's share would be restricted to Rs.6.63 lakh per school {Rs.4.80 lakh per school (non-recurring) and Rs.1.83 lakh per school (recurring)} for general category States and Rs.7.19 lakh per school {Rs5.76 lakh non-recurring and Rs.1.43 lakh per school recurring} for NE States, including Sikkim.*

The provision for software shall include Learning Management Systems & curriculum based courseware apart from operating systems and other application software.

### **Teacher Interventions:**

Under the scheme, all Govt. and Govt.-aided secondary and higher secondary schools will have a minimum level of ICT infrastructure. It should be the endeavour to make all students of these schools IT literate. This would involve formulation and transaction of curriculum and syllabus on computer literacy for each of the classes from IX to XII. Hence an ICT teacher would be required in each school. Secondly, all Examination Boards in the country would be encouraged to offer computer-related subjects as electives at the higher secondary stage. This scheme would encourage individual schools to offer such electives, so that a large manpower with IT skills can be built up in this country. To enable schools to offer these courses, post graduate teachers in IT would be required.

*Therefore, a dedicated computer teacher would be required for every secondary or higher secondary school in the same manner as a separate teacher is required for every other each subject at the secondary and higher secondary stage. Wherever higher secondary and secondary schools are combined, a PGT in IT/ computer science may be appointed to teach the IT related elective subject in the higher secondary stage and also to teach computer literacy in classes IX and X as well. Incase of high schools without higher secondary stage, an IT teacher may be appointed on contract basis or through provisioning under 'BOOT model'. This act alone would be able to transform the ICT learning process in high schools throughout the country and will bring a great first mover advantage to the Indian students in the field of ICT.*

### **Teachers' training**

**Pre-Service training:** *It will be mandatory for all teachers to undergo training in use of ICT in teaching during the pre-service training courses meant for secondary teachers. Details of training and duration (55 hours) to be provided are as follows:*

| <b>S.No</b> | <b>Topics</b>  | <b>Hours</b> |
|-------------|--|--------------|
| 1.          | <i>Computer Overview</i>   | 1.30         |
| 2.          | <i>Operating systems (any scalable, standardized and least support required OS)</i>                    | 1.30         |
| 3.          | <i>Working with Multimedia and making movies and recording sounds</i>                                  | 8.00         |
| 4.          | <i>Overview of productivity suits &amp; integration of Presentation Software in classroom learning</i> | 4.00         |
| 5.          | <i>Networking/internet/e mail</i>  | 8.00         |
| 6.          | <i>Using Word Processor</i>  | 6.00         |
| 7.          | <i>Using Spreadsheet</i>   | 6.00         |
| 8.          | <i>Subject specific TL Tools, e.g. labs, animation, museum, etc.</i>                                   | 8.00         |
| 9.          | <i>Database creation &amp; management</i>  | 6.00         |
| 10.         | <i>Classroom learning &amp; teaching tools (whiteboards, collaborative cooperative tools)</i>          | 6.00         |

The appropriate curriculum would be prescribed by National Council for Teacher Education (NCTE).

### **In-Service training:**

**a) Induction training:** *First time induction training in ICT should be provided to all teachers in the sanctioned schools for a period of 10 days (8 hours per day) @ Rs. 400/- per teacher. 10 lakh teachers are expected to be covered during the XI Plan. The details of training and duration (80 hours) to be provided are as follows:*

| <b>S.No</b> | <b>Topics</b>  | <b>Hours</b> |
|-------------|--|--------------|
| 1.          | <i>Introduction Session</i>  | 0.30         |
| 2.          | <i>Computer overview – parts of a PC, digital devices</i>                                  | 7.30         |
| 3.          | <i>Operating systems (any scalable, standardized and least support required OS)</i>        | 10.20        |
| 4.          | <i>Productivity suits &amp; integration of presentation software in classroom learning</i> | 11.40        |
| 5.          | <i>Documents management using word processor</i>   | 12.00        |
| 6.          | <i>Spreadsheet creation using spreadsheet</i>  | 14.00        |
| 7.          | <i>Internet /email</i>   | 14.00        |
| 8.          | <i>Classroom learning and teaching tools (white boards, collaborative networking)</i>      | 8.30         |

|     |             |       |
|-----|-------------|-------|
| 9.  | Assessment  | 1.00  |
| 10. | Feedback    | 0.30  |
|     | Total hours | 80.00 |

The trainings would be organized by the respective State Governments in convenient batches at the SCERTs or such other training institutions as the State Governments finds suitable.

**b) Refresher Training:** Refresher trainings in use of ICT in teaching should be provided to all teachers of the sanctioned schools every year. Refresher training is proposed to be provided for 5 days (8 hours per day) @ Rs. 400/- per day per teacher. The details of training and duration (40 hours) to be provided are as follows:

| S.No | Topics  | Hours |
|------|---|-------|
| 1.   | Working with multimedia   | 5.00  |
| 2.   | Making and editing movies (picture story)                                 | 4.00  |
| 3.   | Working with pictures (picture manager)                                   | 2.00  |
| 4.   | Overview of web applications  | 2.30  |
| 5.   | Internet and e communication  | 4.00  |
| 6.   | Overview of Management Information System                                 | 3.30  |
| 7.   | Legal and ethical aspects of web based information                        | 1.00  |
| 8.   | Computer technology and security  | 2.30  |
| 9.   | Search optimization (search engines and how to take out relevant content) | 4.00  |
| 10.  | Classroom learning and teaching tools (interactive board)                 | 8.00  |
| 11.  | Overview of personalized learning   | 2.00  |
| 12.  | Assessment and evaluation   | 1.30  |
|      | Total hours   | 40.00 |

### **Content Development**

Development of appropriate e-content and its persistent and effective use constitutes the core of this proposed scheme. This task would be shared by Central Institute of Educational Technology (CIET), State Institutes of Educational Technology (SIET), Regional Institutes of Education (RIE) of the National Council for Educational Research & Training (NCERT), Institutes of repute having experience of education and development of e content and other wings of central and State Governments as required. Outsourcing to private sector in a transparent manner may also be done. Content creation/acquisition being the critical factor for the success of the scheme, a Committee would be set up to ensure and assist Central Institute of Educational Technology (CIET) to finalize a strategy for utilizing the full range of capabilities of the Indian ICT sector. State level committees should also be set up to assess the nature of e content to be developed to enhance the learning capabilities of the secondary school children. There would be stress on development of e-content and building of repository of e content & dissemination of best practices.

It may be noted that SIETs would have the option to incur expenditure on the above items or any other items like digitization, data based creation, editing, etc. depending upto their needs and resources, subject to prior approval of MHRD on submission of detailed justification.

### **Assistance to Institutes of repute for content development through outsourcing:**

The financial assistance for development of e-content through outsourcing would be provided to institutes with repute on the basis of the project proposals submitted by them. The proposals submitted by these Institutes would be scrutinized by the Committee set up under the Chairpersonship of Joint Director, CIET for content development. Based on the recommendations of this Committee, the concerned institute would be asked to make a presentation before the Project Monitoring and Evaluation Group which shall assess the proposals submitted as to their utility and quality. The Committee under Joint Director, CIET will also issue detailed guidelines on outsourcing the work to reputed organizations, including its proper monitoring, supervision and penal clauses in case of defaulting.

### **Management, Monitoring and Evaluation**

The respective States would have an internal mechanism for overseeing the implementation of the programme through a monitoring committee constituted for the purpose. The main parameters for monitoring would include timely installation of requisite hardware, including power supply, suitable software, engagement of teaching and administrative staff, teacher training and extent of use of e-content developed at the multi media labs by the teachers. The State Govt. shall undertake a monitoring mapping at each level i.e. school, district, and State level.

For effective monitoring and evaluation, a web portal will be developed to enable real time monitoring of the implementation of the project at various levels. The Management at State/National level could view the status of implementation and also provide timely mid course interventions. Successful innovations, experiences shall also be uploaded on the portal so that all the stakeholders can make use of the best practices or innovations being carried out by various States and Schools.

### **OBJECTIVES:**

- The core objective of undertaking evaluation is to assess the a) relevance of the project b) benefits derived from the project (Impact) c) whether benefits will continue after the project ends (sustainability) d) the attainment of specific targets for key indicators (effectiveness) e) the amount of effort and resource used (efficiency/ economy) and institutional development and sustainability;
- The study shall be aimed at evolving a critical evaluation of the implementation of the ICT in School Scheme and its impact on overall use of ICT in School;
- Implementation Models;
- Usage and skills to use ICT by various stakeholders such as Students, Teachers, School Head, Principal, DEO, State level authorities etc.;
- Impact on learning process;
- ICT in School Governance.

## **SAMPLE DESIGN**

As per the guidelines each EI shall cover a minimum of six districts in the State/ UT allotted to it and if the State has more than 20 districts, 25% of the total districts may be covered. The EI shall cover 10 Secondary or Higher Secondary Govt. or Govt. aided schools in each district out of which 5 schools shall be selected for Focus Group Discussion and short video screening of ICT facilities preferably when in use.

### **Criteria for Selecting Six Districts in West Bengal :**

| Criteria  | Selected District | Survey Status          |
|---|-------------------|------------------------|
| Urban District                                  | Burdwan           | Complete               |
| Rural District                                  | Birbhum           | Complete               |
| District with high tele-density                 | Nadia             | Yet to start           |
| District with low tele-density                  | Coochbehar        | Yet to start           |
| District characterized as backward by the state | Bankura           | Complete               |
| District with electricity problems              | Murshidabad       | Complete, not analyzed |

**FOLLOWING WEST BENGAL MAP SHOWS THE STUDY AREA / DISTRICTS UNDERTAKEN FOR THE STUDY**

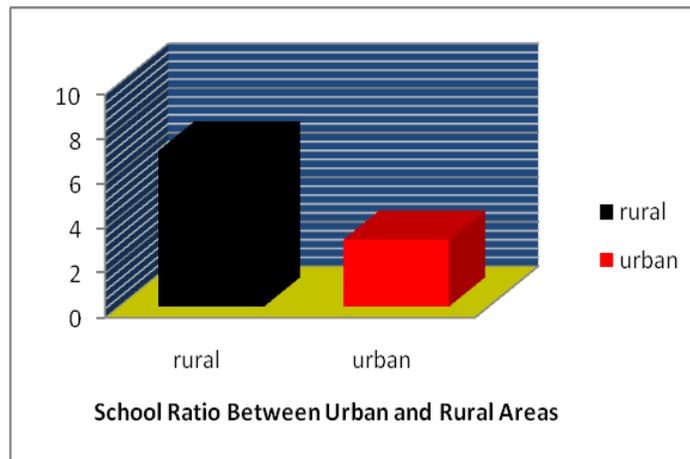


### List of Surveyed Schools in different Districts in West Bengal

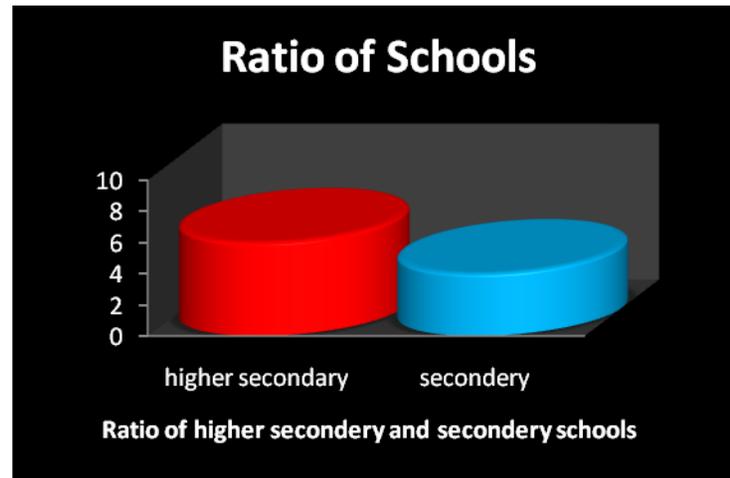
#### DISTRICT : BIRBHUM

| Sub-Division | Block / Municipality | Name of the School  | Category                 | Phone      | Place |
|--------------|----------------------|---------------------|--------------------------|------------|-------|
| Bolpur       | Bolpur Municipality  | Bolpur High School  | Higher Secondary (Boys)  | 9434157742 | Urban |
|              | Illambazar           | Payer High School   | Secondary (Co-Ed)        | 9434559448 | Rural |
|              | Labpur               | Laghosa High School | Higher Secondary (Co-Ed) | 9474731348 | Rural |

|           |                       |   |                          |            |       |
|-----------|-----------------------|---|--------------------------|------------|-------|
|           | Bolpur - Sriniketan   | Goalpara Taneyendra Vidyalaya (High School) | Higher Secondary (Co-Ed) | 9474633074 | Rural |
| Suri      | Suri Municipality     | Birbhum Zilla School                        | Higher Secondary (Boys)  | 9434334972 | Urban |
|           | Sainthia Municipality | Sainthia Boys School                        | Higher Secondary (Boys)  | 9474614431 | Urban |
|           | Suri-I                | Bergram High School                         | Higher Secondary (Co-Ed) | 9434684730 | Rural |
|           | Sainthia              | Banagram Union High School                  | Secondary                | 9474168969 | Rural |
| Rampurhat | Myureswar - II        | Gopinathpur Dayamayee Vidyapith             | Secondary                |            | Rural |
|           | Rampurhat - II        | Baswa Balika Vidyalaya                      | Secondary                | 9732078995 | Rural |



**Ratio of rural and urban schools in Birbhum**



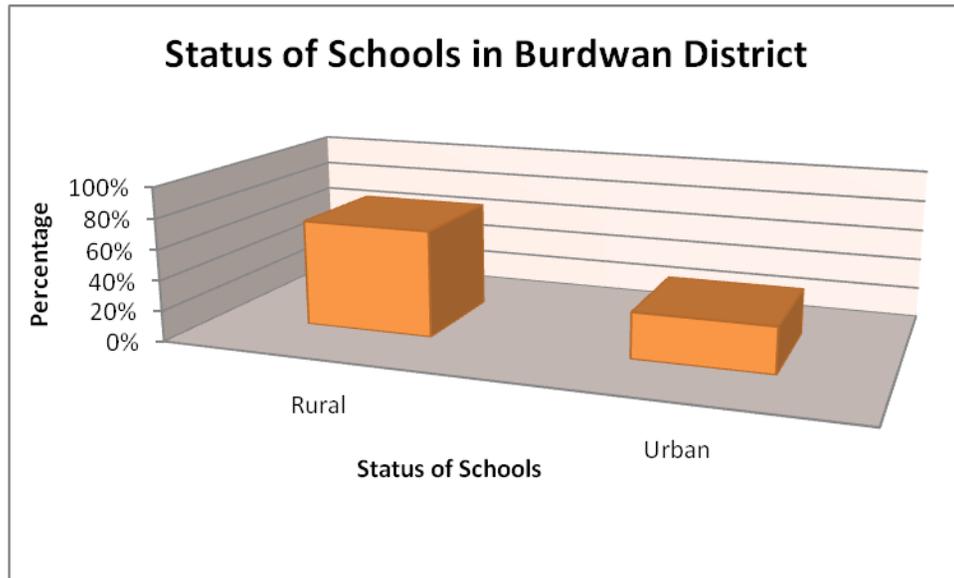
Ratio of Secondary and Higher Secondary Schools in Birbhum

### Sample pictures of ICT labs in Birbhum

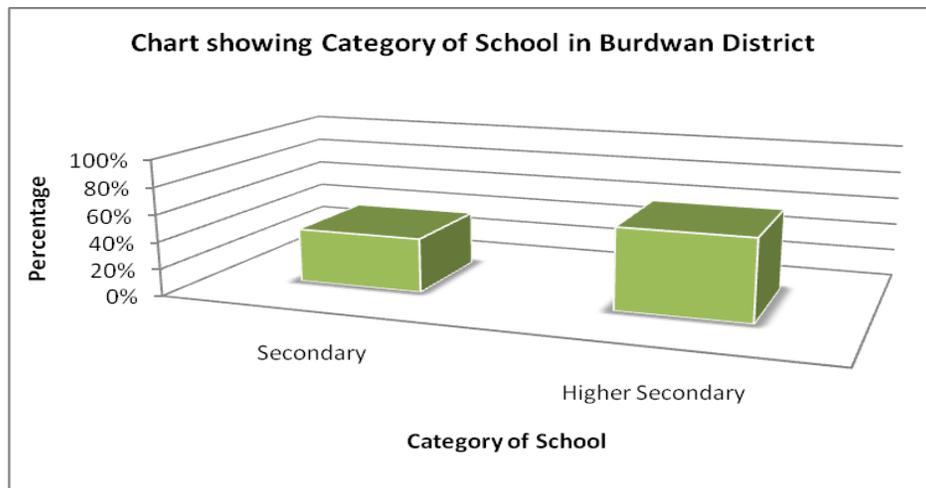


**DISTRICT : BURDWAN**

| Sub-Division            | School                                | Category                 | Phone                                    | Place |
|-------------------------|---------------------------------------|--------------------------|--|-------|
| Burdwan (Sadar) - South | Syamsundar Ramlal Adarsha Vidyalaya   | Higher Secondary (Boys)  |  | Rural |
|                         | Debipur Station Road Boys High School | Higher Secondary (Boys)  | 0342 – 2263233<br>8001662364             | Rural |
| Burdwan (Sadar) - North | Jadavgange Adivasi Hgh School         | Secondary (Co-Ed)        | 03452-201300<br>9434673325               | Rural |
|                         | Barsul C D P High School              | Higher Secondary (Boys)  | 974603445                                | Rural |
| Durgapur                | Ukhra Kunjabehari High School         | Secondary (Co-Ed)        | 0341-2665230<br>9475643702               | Rural |
|                         | Bidhan Chandra Institution for Girls  | Higher Secondary (Girls) | 9434539417                               | Urban |
| Asansol                 | Asansol Rabbania Girls High School    | Secondary (Girls)        | 0341-2280043<br>9547390631               | Urban |
|                         | Ranigange High School                 | Higher Secondary (Boys)  | 0341-2444274<br>9434646112 (ICT teacher) | Urban |
| Kalna                   | Kalna Maharajas High School           | Higher Secondary (Boys)  | 9434311765                               | Rural |
| Katwa                   | Sribati G. K. High School             | Secondary (Co-Ed)        | 03453-249211<br>9635534479               | Rural |



The chart shows that among the sampled schools in Burdwan district 70% schools belong to rural areas and 30 % schools are from the urban area.



The chart shows that among the sampled schools in Burdwan district 60% schools are of Higher Secondary in nature and 40% schools are of Secondary type.

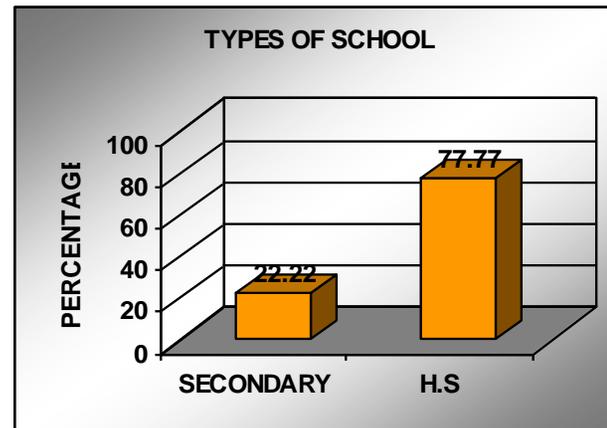
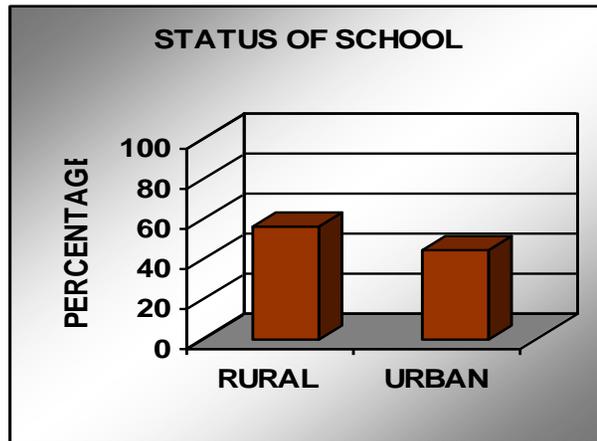
## Sample Pictures of ICT labs from Burdwan District :



### DISTRICT : BANKURA

| Sub-Division | Municipality / Block | Name of the School                | Category                 | Phone        | Place |
|--------------|----------------------|-----------------------------------|--------------------------|--------------|-------|
| Bankura      | Municipality         | Bankura Mission Girls High School | Higher Secondary (Girls) | 03242-253862 | Urban |
|              | Municipality         | Bankura Banga Vidyalaya           | Higher Secondary (Boys)  |              | Urban |
|              | Bankura - I          | Bankura Rajendralal High School   | Secondary (Co-Ed)        | 03242-241369 | Rural |
|              | Bankura - II         | Bhedua Salboni naba Siksha Mandir | Secondary (Co-Ed)        |              | Rural |
|              | Barjora              | Paharpur High School              | Secondary (Co-Ed)        |              | Rural |
| Bishnupur    | Municipality         | Bishnupur Parimaldevi Girls       | Higher Secondary         |              | Urban |

|        |              |  |                                |              |       |
|--------|--------------|--|--------------------------------|--------------|-------|
|        |              | High School  | (Girls)                        |              |       |
|        | Bishnupur    | Bishnupur<br>Krittibas<br>Mukherjee High<br>School | Higher<br>Secondary<br>(Co-Ed) | 9434224826   | Rural |
|        | Sonamukhi    | Sonamukhi Girls<br>High School<br>(new)            | Higher<br>Secondary<br>(Girls) | 03244-275503 | Rural |
| Khatra | Municipality | Khatra High<br>School                              | Higher<br>Secondary<br>(Boys)  | 9434335049   | Urban |
|        | Khatra       | Khatra Girls<br>High School                        | Higher<br>Secondary<br>(Girls) | 03243-255003 | Urban |



## Sample Pictures of ICT labs of Bankura District:



While selecting the schools, sampling has been done from all the sub-divisions of a district keeping in view the following general guidelines of selecting schools as laid down by the MHRD, as far as possible :

- (a) Covered under ICT in School Scheme
- (b) Higher gender gap in enrolment;
- (c) Higher proportion of SC/ST / Minority/ Weaker Section students;
- (d) The localities where problem of electricity connection and supply exists;
- (e) The localities where there is problem of 'no internet connectivity' or 'connectivity problem';
- (f) The schools located in rural areas;
- (g) Schools covered under old scheme as well as revised scheme.

## OBSERVATIONS FROM BID ANALYSIS :

### 1. SCOPE OF WORK

| Mandate   | Comments from the In-charge, WEBEL Informatics Limited                           | Survey Observations   | Feedback from Secretary, School Education, Govt. of West Bengal                               |
|---|--|---|---|
| Install and maintain Computer Labs and to provide Computer Aided Educational services in 800 Secondary and Higher | Done in 800 Schools in 7 districts under Division 1 and 2 by IL&FS Education and | It is done in Division 1 and 2 by IL&FS Education and Technology Services. Other divisions are not in | In absence of eligible vendor, only 800 schools started first. perator (CORE Education) could |

|   |  |  |  |
|---|--|--|--|
| <p>Secondary Schools affiliated to The West Bengal Board of Secondary Education (WBBSE) on Build-Own-Operate-Transfer (BOOT) basis for a contract period of Five (5) years.</p>   | <p>Technology Services Limited</p>   | <p>vogue at the time of survey</p>   | <p>not start the programme in 400 schools due to some internal problem. The award may be terminated after due time.</p> <p>The rest 800 schools would begin to function in very short time.</p>                            |
| <p>Supply, install and maintain computer hardware, software, networking, and additional accessories/materials like UPS, Electric cables, Furniture etc. in working condition during the contract period.</p>  | <p>Done in 800 Schools in 7 districts under Division 1 and 2 by IL&amp;FS Education and Technology Services Limited as per the prescribed specification of hardware and accessories.</p>   | <p>Operating System used as UBUNTU is tough and not easy to handle by the students.</p>  | <p>UBUNTU is a Free and Open Source Software (FOSS). A separate study might be undertaken to understand student acceptance / perception of the Operating system. Use of FOSS is recommended by GoI.</p>                    |
| <p>Install, run and maintain Multimedia based educational content or any other application software provided by the Department of School Education, Government of West Bengal as stipulated in this tender document during the contract period.</p>                                       | <p>School Education Department is yet to provide any such educational content. However, IL&amp;FS Education and Technology Services Limited have provided its own Multimedia based educational content in the PCs of 800 Schools under Division 1 and 2.</p> | <p>Educational content mostly for Madhyamik levels (school Certificate). Content for Higher Secondary classes are yet to develop.</p>  | <p>Development of Content may be entrusted to SCERT, WB.</p>   |
| <p>Equip each school with the minimum equipment (Hardware, software, accessories/materials) as per technical specifications prescribed in Annexure II - Technical Specifications of this tender document.</p>   | <p>Done in 800 Schools in 7 districts under Division 1 and 2 by IL&amp;FS Education and Technology Services Limited</p>  | <p>Done. But the supplier of computer equipments (Chirag) has already lost its credentials. So IL&amp;FS had to go for DELL company for providing equipments for the next phase.</p> | <p>No comments.</p>  |
| <p>Impart Computer Education to students of classes IX to XII in accordance with the syllabi / curriculum prescribed by the West Bengal Council for Higher Secondary Education (WBCHSE) /Government of West Bengal (<a href="http://www.wbchse.gov.in">http://www.wbchse.gov.in</a>).</p> | <p>Ongoing. However, the syllabi/ curriculum prescribed by WBCHSE (MS windows platform) is in departure from the Operating System and Application Software prescribed and provided by</p>  | <p>Not found in any surveyed schools.</p>  | <p>The para needs to be modified as Class IX &amp; X syllabus / curriculum is prescribed by the WBBSE. For Class XI &amp; XII, it is prescribed by the WBCHSE. However, we may plan for future parity between supplied</p> |

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|  | School Education Deptt (Open Source Linux) through the BOOT operator.                                   |  | OS and taught OS while framing the syllabus. Expert Committee on Syllabus is being entrusted with the task of preparation / revision of relevant syllabus after thorough discussion with the stakeholders.  |
| Impart computer training to teachers and non-teaching staff in each school. The mandatory trainings include Induction Training in ICT for an average of 10 teachers per school for 10 days and Refresher training for an average of 10 teachers per school for 5 days. Apart from this, periodic trainings should be conducted for the teachers every year, as required by the Head of the Institution as per <b>schedule</b> of the school. The total number of staff members (teaching and non-teaching) of the school is to be trained. | Training of the 10 Teachers at each school is ongoing. Training module and Trainers handbook developed. | In rare cases it is found that teachers got training whether inductive or refresher. | The issue may be taken up with the BOOT Operator on receipt of specific observations indicating school names. The department is planning to arrange frequent visits to the training venues for the school teachers. Training calendar would be obtained from the BOOT Operator. They will also be asked to submit attendance sheet and videography of the training session.   |
| Provide one well-trained ICT teacher during contract period to the schools.  | Provided at each of the schools.  | Not found in many schools at the time of survey.                                     | Assessment appears non-specific. It is not clear whether those schools are within the coverage of present ICT, BOOT model (800 of 2000 schools ) or they are of the previous ICT programme (543 or 1400 schools where no instructor has been provided). The issue may be taken up with the BOOT Operator on receipt of specific observations. However, list of teacher / instructor provided at each school alongwith date of joining and qualification would |

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|   |  |                                       | be obtained from the BOOT Operator. The attendance register may also be asked for.<br><br><b>PI's Comment : This is mostly for previous ICT programmes.</b> |
| Conduct class wise periodical tests (both theory & practical) as per syllabus every six months in coordination with school staff to check the efficacy of ICT training imparted by the bidder to ICT instructor/teachers of the school. | Classes have commenced from February 2013. Tests are due in next couple of months. | Not complied with up to survey dates. | The BOOT Operator would furnish the schedule of test.   |

## 2. OBLIGATIONS

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| Preparation of the Detailed Project Plan   | Prepared and shared with the State Government in the bid document | Done  |
| Hardware Procurement Plan for all the Implementation Locations   | Prepared and shared with the State Government in the bid document | Done  |
| Hardware and System Software installation plan   | Prepared and shared with the State Government in the bid document | Done  |
| Manpower Deployment Plan for Hardware and Software Maintenance and Support. The deployment plan should include details of personnel to be stationed at the district headquarters, including their names, qualifications, designation and their reporting hierarchy (reporting manager and upward). | Prepared and shared with the State Government in the bid document | Done  |
| Training Plan including a training calendar for User Training  | Prepared and shared with the State Government in the bid document | Not functioning properly  |
| Assume responsibility of managing and monitoring the project as per the indicative Time schedule specified in this RFP   | Complied with   | Due to different technical, financial and administrative causes implementation delayed. |

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| <p>Set up a Helpdesk at the District Level to take care of the following issues</p> <ul style="list-style-type: none"> <li>• Prime Business Hour (PBH) Support for logging calls</li> <li>• All kind of trouble shooting regarding Hardware, System Software</li> <li>• Training, Hand Holding and Knowledge Transfer to the Teachers</li> <li>• Complete SLA Monitoring</li> <li>• Reporting to the proper authority</li> <li>• Any other related and relevant issues</li> </ul> | <p>Centralized helpdesk with No. <b>033-22905500</b> already in operation. Additionally District wise support manpower deployed by the BOOT Operator</p> | <p>Not tested by the PI</p> |
| <p>Depute one Project Manager as a single point of contact for onsite project management during the Contract period. He/she should have relevant certification and should have appropriate authority to take decisions for smooth and early completion of work.</p>   | <p>Single Point Project Manager deputed by the BOOT Operator</p>   | <p>Done</p>                 |
| <p>Contractor has the liberty to decide on the number of Manpower required at the Helpdesk but they need to provide the managed IT support strategy for these offices in their technical bid. It will be vendor's obligation to augment manpower to ensure hardware and system software functionality along with its components.</p>  | <p>Helpdesk is equipped enough to deal with issues pertaining to 800 schools.</p>  | <p>Not yet tested</p>       |
| <p>Monitor the progress of Change Management Plan in order to enable smooth transition into the new system.</p>   | <p>All Training programmes have change Management modules</p>  | <p>Agreed</p>               |
| <p>Demonstrate all the features/facilities/functionalities of the</p>   | <p>Complied with</p>   | <p>Agreed</p>               |

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| implemented solution in accordance with this Agreement to WIL or any other agency as designated by School Education Department.  |  |  |
| Arranging the test equipment required for conducting the Acceptance Test   | Acceptance test conducted by WIL on all the supplied equipments  | Agreed   |
| The Contractor shall operate the IT Labs in the designated Schools. The Contractor shall ensure that the Service Level performance indicators (SLI) are achieved failing which the Contractor shall be liable to pay the liquidated damages. The indicative liquidated damages are enumerated at <b>Schedule 4</b> . Unless the liquidated damages on the Services Level performance indicators are revised by the Parties, by mutual agreement in writing the performance indicators enumerated at <b>Schedule 4</b> shall apply. | Being complied with by the BOOT Operator   | Agreed   |
| WIL shall measure the SLI from the MIS developed by the Contractor. In addition the Contractor shall submit monthly availability of Hardware/Software, availability of IT Trainer in the school with attendance, no. of theory classes and practical classes conducted as mentioned in the RFP and other equipments installed at the Schools certified by the head master or principal.  | SLA Management is being done by WIL.   | Report is needed for verification.                           |
| The Contractor shall fully insure the Supplies against loss or damage incidental to manufacture or acquisition, transportation, storage delivery and   | Insurance coverage against Fire and Burglary has been procured by the BOOT Operator. Copy of Insurance Policy has also been shared with WIL. | Insurance for 2012 copy received. Up to date copy is needed. |

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| <p>installation. The period of insurance shall be up to the date the rights to the supplies are transferred to The School Education Department, Government of West Bengal or any Department as decided by Government of West Bengal.</p>   |  |  |
| <p>Contractor shall replace the damage/loss or stolen hardware within 15 days from the reporting date. In case of burglary or big theft the Contractor has to replace the material after receiving of NTR from police department. However the QGR payment will be followed as per the terms and conditions of the SLA.</p>   | <p>All cases of theft/ Burglary have been registered with the local Police Station and accordingly insurance claims have also been raised. Hardware are pending for replacement due to non receipt of the NTR from the police deptt.</p> | <p>PI has observed some cases of theft. It is due to the negligence of the school. FIR lodged but no outcomes found.</p>   |
| <p>Without prejudice to the generality of the foregoing the Contractor shall be entitled to engage the requisite manpower, agencies for timely &amp; successful implementation of the Project. However, the Contractor shall be solely responsible for ensuring compliance with all Labour laws relating to but not limited to Minimum Wages Act and other statutory enactment applicable to the outsourced or contractual manpower engaged by the Contractor.</p> | <p>Complied with and all statutory compliances being met with as per the rule of the land.</p>   | <p>The salary / honorarium is very less for the ICT instructors at school. They get insufficient salary which may cause apathy to teach, inconsistency in integrality and prone to switch of for better opportunities.</p> |
| <p>In case of default in compliance as aforesaid the Contractor shall be solely responsible for the consequences either in term of money or otherwise and that neither WIL nor the Instrumentalities of the State of West Bengal shall in any way be responsible or liable for such default.</p>   | <p>No such default reported as on date.</p>  | <p>Agreed</p>  |
| <p>In no event, the manpower (own or engaged contractually) of the Contractor shall be</p>   | <p>Complied with through the agreement</p>   | <p>Agreed. But perception differs among the ICT instructors. Some of them think that</p>   |

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| treated as the employees of WIL or the State Government of West Bengal. |  | they will get preference when the ICT teachers will be recruited by the Govt. |
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### 3. SUPPLY SIDE

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| <p><b>Accommodation for Computer Lab:</b> The Head of Institution will provide sufficient and safe room for computer lab and the maintenance &amp; security of this lab is the sole responsibility of the Contractor. The Head of Institution would provide the computer room having hardwearing floor finish, with a pucca roof, easily maintainable and should not produce dust. The room to be provided by Head of Institution must have sufficient space for placing 10 computers (including Server), one printer, UPS, Switch, and Modem etc. with necessary locking arrangements and to seat 20 students. Standard size of Computer Lab/Room: 200 Sq. feet with a ceiling height of a minimum of 10 feet or more to be provided by the respective schools. It will be preferred that not more than two students should work on a single terminal or one PC i.e. the student to computer ratio would be 2:1.</p> | <p>The Rooms for ICT Lab were identified suitably and were handed over to the BOOT operator by the schools for necessary site preparation activities.</p>   | <p>In most of the cases the rooms are not complied with the specifications laid down, though they are good and safe. Some of the labs are built with engineering point of view, some are not. In most of the cases pucca roofs are there, but not hardwearing floor finish. Most of the schools can not maintain 20 students norm. due to heavy pressure of sections / class enrollment, they have to arrange for 40/50 students (at least 3 students per computer). For theoretical class it is O.K. but for practical purpose, some students cannot touch keyboards within the stipulated period. Again, the turn comes for a student even after a month. Most of the cases PI found, the classes are being organized for class V to X or XII. which is also not the objective of ICT@ School scheme, though it is good to give exposure of computer literacy for all the students in a school.</p> |
| <p><b>Fitting of Electricity/Site Preparation</b></p> <ul style="list-style-type: none"> <li>i. The basic Electric connection will be provided by the School. Other additional electric fitting materials within the computer lab shall have to be made by the Contractor.</li> <li>ii. The sub-meter will be installed in all schools by the Contractor</li> </ul>   | <p>Electrical wiring for each of the computer terminals been done by the BOOT Operator.<br/>Sub meter has been installed by the BOOT Operator.<br/>Electricity bills are being paid to the schools by the BOOT Operator on half yearly basis.</p> | <p>Electrical wiring is done and sub meter has been installed in most of the schools.</p>   |

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| iii. The electricity bill of the computer lab will be paid by the Contractor   |   |   |
| The Contractor shall arrange to supply, install & deploy the ordered material (computer hardware, software and accessories etc.), manpower and CE & ICT services strictly in accordance with specifications given in the technical bid within a period of 90 days from the date of LOI.  | Completed in time   | Delayed deployment found in many cases.                   |
| The Contractor shall give on-site comprehensive guarantee/warranty for Computer Hardware, Software and connected accessories covering the contract up to year 2017 against breakages and breakdowns. This guarantee/warranty shall cover all items irrespective of the fact whether the Contractor has manufactured them or not. If the project extends for one more year than on-site comprehensive guarantee/warranty would also be extended without any financial liability of Department of School Education, Government of West Bengal. | The equipments are under warranty till 2017 and are being serviced under warranty till date.                | In some schools quick repair / replacement are not found. |
| The installation and maintenance shall be done at the risk and cost of the Contractor.   | Yes   | Agreed  |
| The School will maintain a Register of Assets for all the equipments and assets deployed by the Contractor.  | Being maintained at the ICT Lab by the schools  | Agreed  |
| The Contractor shall only use licensed software and shall be held liable for any consequent action arising out of patent/intellectual property right violation and the Department of School Education, West Bengal/District Inspector of   | All software being installed by the BOOT Operator at the school are either Licensed or open source product. | Agreed  |

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| School(S)/Head of Institution shall not be liable for any liabilities or damages arising thereof.   |   |  |
| The Contractor shall not use the school or lab premises for any other purpose other than those stated.  | Complied with   | Agreed   |
| The Contractor should maintain all the computer hardware, software and other equipment in proper working condition throughout the contract period.  | Complied with   | Not in all cases   |
| The Contractor shall provide all the other consumables such as Computer stationery, CD-Rs etc. as per the requirements of school during the contract period without any extra cost.   | Provided to the schools on half yearly basis  | Complaints regarding the materials received from the school authorities. |
| If any computer training is imparted to the teachers in the school by any agency, other than the Contractor, the Head of Institution shall have the right to use the computer lab along with hardware and software for this purpose.  | Yes; <b>agreed and understood.</b>  | Some non-BOOT model schools did this.                                    |
| If the Contractor fails even after providing adequate notice, the Head of Institution is empowered for alternative installation of contracted hardware/software/ accessories and for providing computer education services with the accumulated amount by the deductions after obtaining written permission from WIL, District Inspector of School/the Department of School Education, West Bengal. | No such instance came up as on date   | Not found  |
| Any Hardware/Software etc. installed by the Contractor shall not be removed or taken out of the school and from the place of installation without prior written permission of the head of the institution.  | It has been reported that due to the Elections, some of the BDOs have taken out the ICT equipments out from the ICT lab for their own purposes. Such records are well maintained at the schools. <b>Hon'ble</b> | Observed and agreed.   |

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|  | Secy., School Education Department has been duly informed.   |   |
| At end of 5 years of the project duration, the assets will be property of the respective schools or as decided by the School Education Department, Government of West Bengal.  | Yes  | Agreed  |
| The Contractor should present at the end of each Quarter, a consolidated list of expenditures block wise and maintain all supporting paper documents and bills with them for audit purpose.  | OK   | To be verified.   |
| Contractor will indemnify the government from any dispute(s) and/or claim(s) that may arise between instructor and School/Department/Government at any point of time during or after the project's award and/or completion.  | Complied with  | Agreed  |
| <p><b>Commissioning of the Project:</b> If the Contractor has fulfilled following conditions then the Project will be deemed to have been commissioned and payments can start as per payment conditions:</p> <p>a) Has supplied and installed hardware, software &amp; equipments in the computer lab as per the specifications and terms &amp; conditions of this tender document, and</p> <p>b) Has deputed the Computer Instructor at the school as per the specifications and terms &amp; conditions of this tender document, and</p> <p>c) Theory classes for training (of students or teachers or non-teaching staff) have commenced, and</p> <p>d) The delay in start of practical classes is due to the Government approval.</p> | <p>a) Yes the BOOT operator has supplied and installed hardware, software &amp; equipments in the computer lab as per the specifications and terms &amp; conditions of this tender document.</p> <p>b) The BOOT operator has deputed the Computer Instructor at the school as per the specifications and terms &amp; conditions of this tender document</p> <p>c) Theory classes for training (of students or teachers or non-teaching staff) have commenced in all schools.</p> | <p>a) Found in all BOOT model schools.</p> <p>b) Not done in many surveyed schools. The qualifications and quality of ICT instructors are not up to the mark and as per specifications in many cases.</p> <p>c) Theory classes have been started in most of the schools.</p> <p>d) True</p> |

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#### 4. COMPUTER INSTRUCTOR

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| The Contractor shall provide minimum one computer instructor to teach computer education & maintain the lab in each School.  | Provided at each of the schools.   | In most of the surveyed school no computer instructor was found at the time of survey. They may be engaged after that.   |
| The instructor to student ratio per lab would be 1:20 i.e. on every 20 students one instructor would take the practical. The student to computer ratio would be 2:1 i.e. 2 students per computer would take the practical. The instructor would take class wise & batch wise practical classes as per the timetable set by the Head of Institution/School and syllabus prescribed by WBCHSE/WBBSE. | Complied with while conducting the sessions.   | Almost nowhere it is maintained. The reasons are:<br>1. Teaching class V to X or XII students (for ICT it should be for classes IX to XII)<br>2. Huge pressure of students in all classes.<br>3. Sometimes the ratio goes up to 5:1. |
| The instructor will produce attested photocopies of all the Degrees/Diplomas/Certificates and his/her bio-data along with photo attested by the Contractor at the time of joining.   | Submitted and kept with the BOOT operator  | Regarding qualification in most of the cases they are not selected as per the MHRD guidelines. Their salary structure is very less (starts with Rs. 2500/- per month).   |
| Female instructor will be preferred in girls' schools.   | Preferences have always been given for female instructor for girls' school and so far it has been complied with. | Agreed and found in some cases.  |
| The working hours for instructor will be the school hours and/or as per directions given by the Head of institution.   | Yes  | Agreed   |
| The instructor shall not force the students to study computer education on private basis.  | Complied with  | On the contrary, students are forcing the instructor to take more classes.   |
| The Contractor shall replace the instructor if his/her performance is not found satisfactory consistently.   | This is done in consultation with the respective head of the institutions.                                       | Case is not found  |
| The instructor will maintain the following four registers (or one register covering all  | Being maintained.  | Most of the cases instructor is not maintaining any register.  |

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| <p>the required formats binded together for convenience) in each school duly verifying each entry by the Head of Institution and the registers will be placed in the custody of the Head of Institution:</p> <p>Stock Register,<br/>Consumables Register,<br/>Down Time and Movement Register<br/>Instructor's Attendance Register.</p> |  |  |
| <p>The instructor will maintain his/her daily diary as teacher's diary and students' attendance register separately. These registers will be provided by the Contractor.</p>  | <p>Being maintained by the ICT Instructor and being sent to WIL by the BOOT operator quarterly.</p>  | <p>To be verified.</p>   |
| <p>The Contractor will follow the academic calendar issued by the School Education Department for teaching. Delay in executing teaching shall be treated as absence of instructor and penalty as per "the penalty for absence of instructor" will be imposed on Contractor.</p>   | <p>Complied with</p>   | <p>Agreed</p>  |
| <p>The instructor will bear identity card of the organization/company of the Contractor.</p>  | <p>The instructors have been introduced to the respective schools through separate introduction letters issued by the BOOT Operators under their letterhead.</p> | <p>Agreed</p>  |
| <p>No experience certificates will be given to instructors by the school/department. The instructor/employee of the Contractor will not claim any employment with Department of School Education, Government of West Bengal/School during or after the contract period.</p>   | <p>Yes</p>   | <p>Agreed. But they have expectation to get preference when this type of recruitment will be done by the State Govt.</p> |
| <p>The Contractor will be solely responsible for any dispute that arises between instructor(s) and Contractor due to non/under payment, service conditions, etc. In case the School/Department/Head of</p>  | <p>Yes</p>   | <p>Agreed</p>  |

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| <p>Institution is made a party in any such court case the Contractor will bear any/all losses/expenses on account of such cases. The Contractor will indemnify the School/Head-of-the-institution/Department/Government in case of any and all claims arising from such action on part of the instructor.</p> |  |   |
| <p>The Contractor will follow applicable labor laws.</p>  | <p>Yes</p>   | <p>The applicable labour law should provide Minimum Wage to all instructors as per the State Govt. guideline.</p>                           |
| <p>Only those candidates who fulfill the criterion laid down for Computer Instructor will be hired.</p>   | <p>Yes but in case of non availability of suitable candidate as per specific criteria, next best suitable candidate with qualification and experience is being deputed by the BOOT Operator in consultation with WIL. <b>This issue would be reviewed periodically</b></p> | <p>Agreed. Qualifications in many cases are not befitting with the qualifications laid down in the guidelines for computer instructors.</p> |
| <p>The instructor(s) will invariably make use of multimedia projector for theory and practice classes and will make the best use of the computer infrastructure in the best interests of learning of students.</p>  | <p>Being done in all schools</p>   | <p>Done</p>   |
| <p>School records, examination results etc. of the school may be computerized with the help of computer instructor.</p>   | <p>Being done in all schools</p>   | <p>Found in some schools.</p>   |
| <p>The tenure of service of the Instructor will end as soon as the term of the agreement of the vendor expires.</p>   | <p>The Instructors have been hired by the BOOT operators on yearly renewable contract basis. So there is no liability of School Education Deptt. or WIL in this.</p>   | <p>Agreed</p>   |
| <p>To ease payroll processing and ensuring adherence to statutory compliance of Computer Instructors being engaged, Contractor can hire the services of a specialized manpower agency at its own cost.</p>  | <p>The BOOT operator has engaged specialized manpower agency for processing their payrolls.</p>  | <p>Agreed</p>   |

## 5. EQUIPMENT SPECIFICATION ENDORSED BY THE BOOT OPERATOR

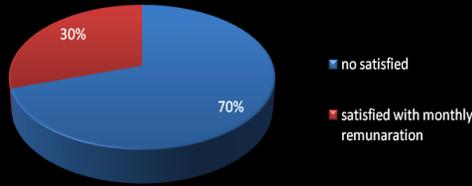
| Article   | Make   | Endorsement |
|---|--|-------------|
| 1. Desktop Computer (With DVDRW)                          | Offered Specification:<br>Make: CHIRAG<br>Model: NuEdge i329z  | Yes         |
| 2. Desktop Computer ( Without Optical Drive)              | Offer Specification: Make: CHIRAG<br>Model: NuEdge i329z   | Yes         |
| 3. Laser Multifunction (Print, Copy, Scan, Fax) Networked | HP LJ 1213nf   | Yes         |
| 4. 600 VA UPS for Desktop PCS                             | Numeric: 600 Double  | Yes         |
| 5. 2 KVA UPS for Projector and Printer                    | Numeric 2000 MR<br>ISO 9001:2008<br>ISO 14001:2004   | Yes         |
| 6. Multimedia Projector                                   | Vivitek<br>D522WT<br><u>3D Ready</u>   | Yes         |
| 7. Wireless Access Point cum Router                       | Make - D-Link<br>Model :- DIR-600<br><u>150Mbps Bandwidth Support</u>  | Yes         |
| 8. Web Camera   | iBall Face2Face C12.0<br>High quality 1/4 CMOS sensor  | Yes         |
| A. Computer Table   | 600mm x 400mm x 725mm with Sunmica Top/ Polyurethane (PU) Paper lamination having facility for keeping CPU, Monitor and Keyboard (pull out). Also a hole/conduit for LAN cable through it. | Yes         |
| B. Computer Chair   | Make: Supreme, Model: Dream<br>PVC/Plastic molded without arms rest  | Yes         |
| C. Multi – function Laser Jet printer Table               | Make: Supreme<br>600mm x 400mm x 725mm with Sunmica Top/PU Paper lamination having facility for keeping LJ Printer & Scanner. The  | Yes         |

table will have locker (cabinet) to safely keep loose h/w, cables etc.

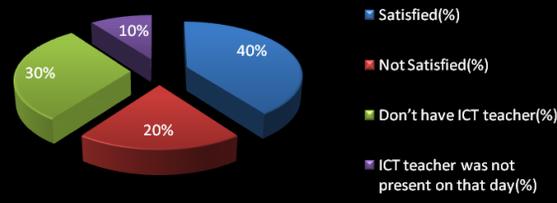
**DISTRICT WISE OBSERVATIONS :**

| <b>BIRBHUM</b>   | <b>BURDWAN</b>   | <b>BANKURA</b>  |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
|--|--|---|---------------------|-----|---|---|---------|--------------------------|---------|-------|---------------|-------|-------------------------|-------|----------------|-------|-------------|-------|
| <p>It is seen that the 100% schools had not been connected with internet till date even in Zilla school of Birbhum. But in every school every computer has WI-FI connection. In 10% schools computer has not been installed till March, 2013.</p> <div data-bbox="94 553 651 813"> <p><b>Computer installation Chart</b></p> <table border="1"> <tr> <td>comp. installed</td> <td>10%</td> </tr> <tr> <td>comp. not installed</td> <td>90%</td> </tr> </table> </div> <p><i>As the BSNL broadband is not working properly I.C.T. State Coordinator replies, "50 schools have been selected in all over the State as pilot to give internet connection through dongle, according to the availability of network we proposed to give 'Airtel' dongle."</i></p> | comp. installed  | 10%   | comp. not installed | 90% | <p>Number of computers is much less in accordance with the total students' strength. In Burdwan district it is found in 100% schools.</p> | <p>Demand for more computers along with accessories like colour printers, modem attached projector, scanner etc. is more with updated configuration for the old ones. Also emergency electrical supply and well furnished lab are in demand.</p> <div data-bbox="1371 570 1877 956"> <p><b>RESPONSE ACCORDING TO DEMANDS</b></p> <table border="1"> <tr> <th>DEMANDS</th> <th>RESPONSE (IN PERCENTAGE)</th> </tr> <tr> <td>Printer</td> <td>22.22</td> </tr> <tr> <td>Color printer</td> <td>11.11</td> </tr> <tr> <td>overhead updated &amp; well</td> <td>44.44</td> </tr> <tr> <td>wireless modem</td> <td>11.11</td> </tr> <tr> <td>training of</td> <td>11.11</td> </tr> </table> </div> | DEMANDS | RESPONSE (IN PERCENTAGE) | Printer | 22.22 | Color printer | 11.11 | overhead updated & well | 44.44 | wireless modem | 11.11 | training of | 11.11 |
| comp. installed  | 10%  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| comp. not installed  | 90%  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| DEMANDS  | RESPONSE (IN PERCENTAGE)   |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| Printer  | 22.22  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| Color printer  | 11.11  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| overhead updated & well  | 44.44  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| wireless modem   | 11.11  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| training of  | 11.11  |   |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |
| <p>70% I.C.T. teachers / instructors are not satisfied with their remuneration and demand increasing of monthly remuneration.</p>  | <p>Salary of the ICT coordinator is much less. In 40% cases it is found that ICT teachers are not satisfied with their remuneration. In 30% cases, the school don't have their ICT teachers.</p> | <p>Annual maintenance (AMC) is required for all old scheme schools.</p> |                     |     |   |   |         |                          |         |       |               |       |                         |       |                |       |             |       |

**Monthly Remuneration Chart**

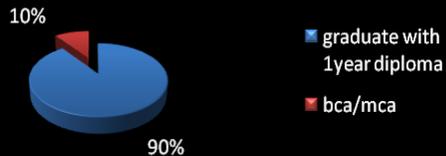


**Chart showing level of satisfaction on remuneration of ICT teacher**



In I.C.T. rules and regulation it is cleared that a ICT teacher/instructor must have the qualifications like B.C.A./M.C.A. and remuneration is Rs.10000 per month. But it is seen that 90% recruited teachers/ instructors have graduate degree with 1 year diploma in computer or some training.

**Qualification of I.C.T. Teacher**

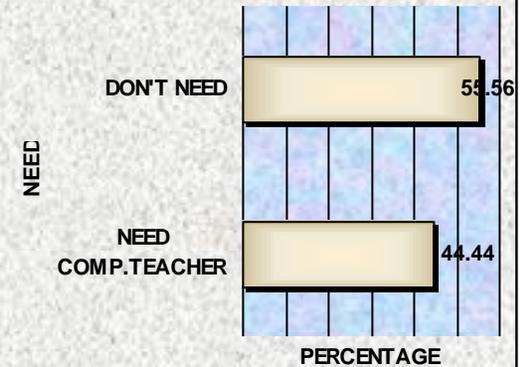


State Coordinator replies, "We have appointed I.C.T. teacher as per labour law and the remuneration is Rs 3000/month."

Newly recruited teachers have no appointment letters with them.

Computer teacher / instructor / ICT teacher is essential for all old scheme schools.

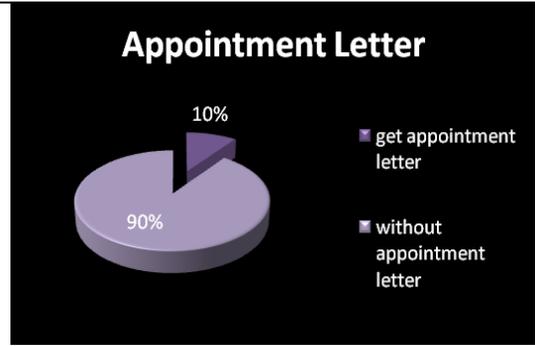
**RESPONSE ACCORDING TO NEED**



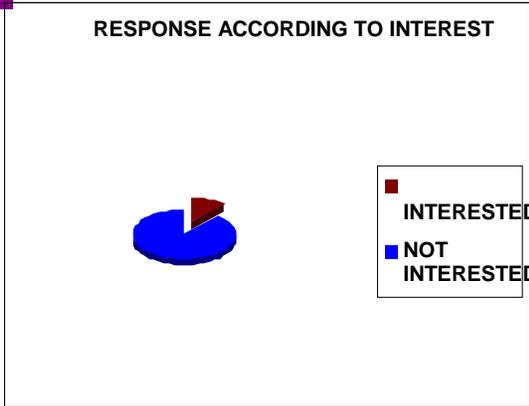
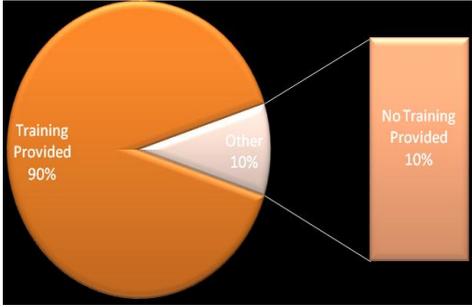
The appointment letter has not been given to 90% ICT teachers till the date of inspection, which is creating a miscommunication with H.M. The appointed teachers are unable to show any appointment letter given by the vendor.

Number of teaching staff in relation to student strength is not adequate. So that teachers do not get enough time to use ICT in their subject. No training had been provided to the assistant teachers in 90% schools.

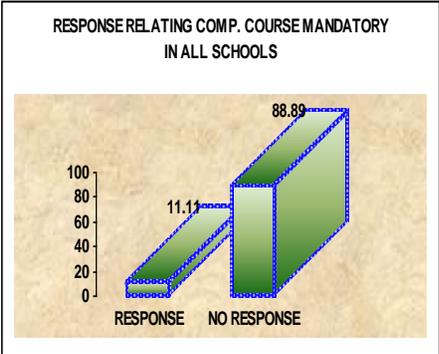
When the issue of learning from outside agencies by giving fees arises, guardians are not interested even by providing very less fees (but they spent much more amount for their wards' private tuition).



*State coordinator replies, "The appointment letters are in process in the investigation period, but it has been served now."*



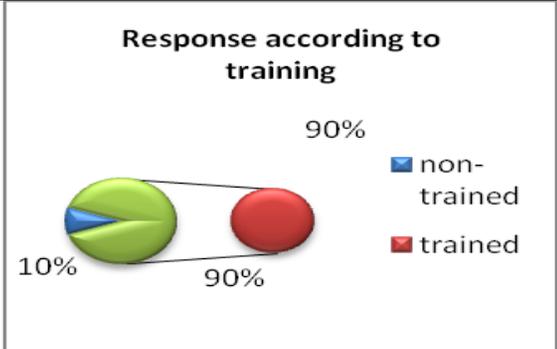
When we ask whether compulsory learning of basic computer knowledge should be compulsory in all schools, response is less because of non-exposure to the ICT.



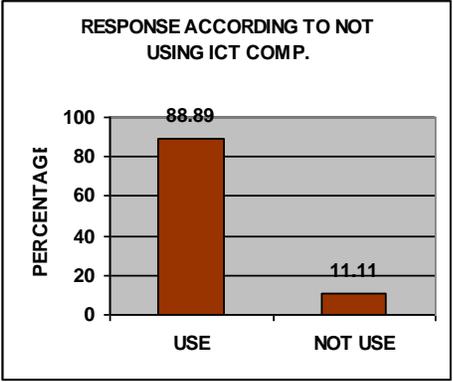
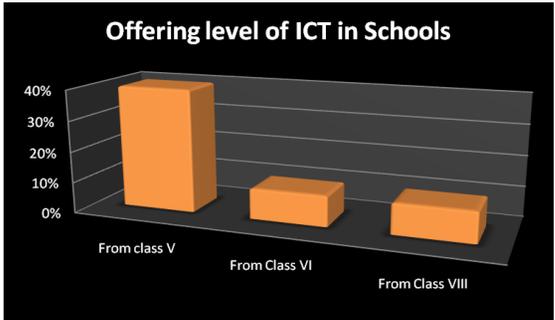
10% ICT teachers have not received any kind of training and some of them gone to take training in that inspection day. There is no clear idea about the ICT teachers' training programme. ICT teachers give different answers to this question. It clearly shows the miscommunication between the vendor and the ICT teachers.

60% schools offer ICT from below IX standards, somewhere it is taught from class V (40% cases), somewhere from class VI (10% cases) somewhere from class VIII (10% cases).

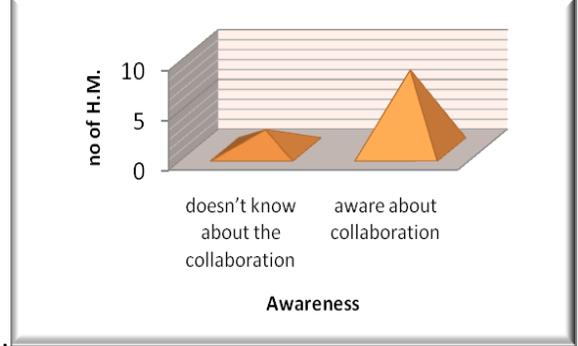
After installation many computers are not used by anybody neither from the side of teachers not by the students.  
**[one H.M's comment : Either take away the computers from the school because they are not used since installation, or appoint a trained teacher and compulsory computer learning for all the classes.]**



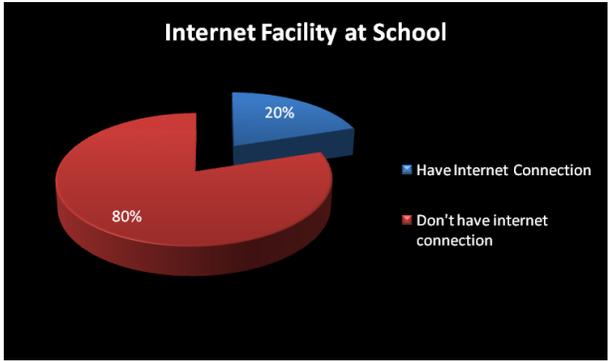
*State coordinator said, "12 days training has been given to I.C.T teachers."*



In 20% cases H.M. does not know what would be supplied by the vendors and the contract is for 5 years between the vendor and the State. It shows the level of communication gap among the Govt. officials, vendors and schools. **District Inspector (DI) of Schools in Birbhum is in total darkness about the scheme** (though he is officiating).



In spite of LAN connection there was no internet connections in 80% schools.



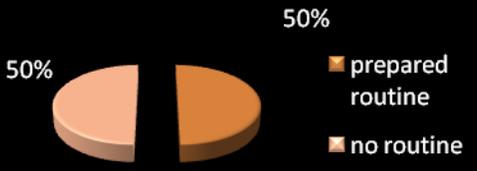
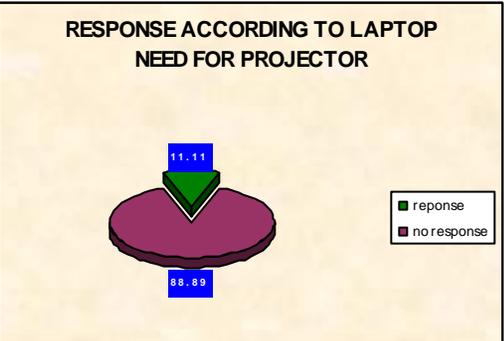
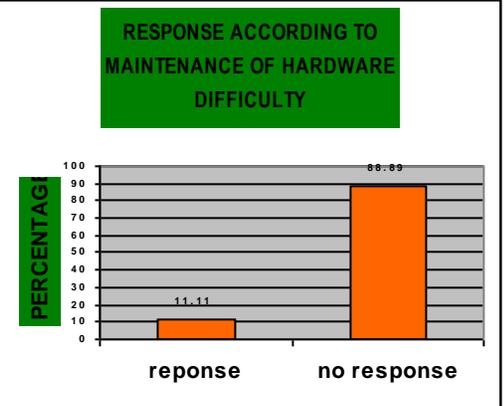
One computer out of 10 ICT machines is being used by the HM for administrative purposes in all most all cases. Such type of PC is connected with internet only.

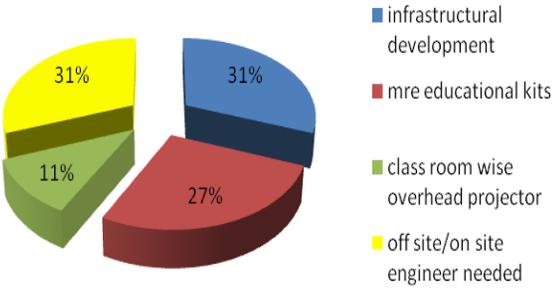
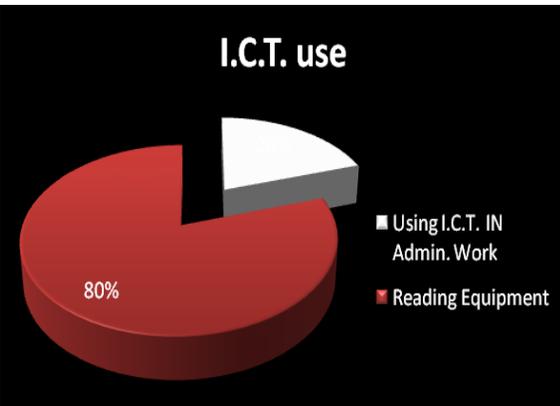
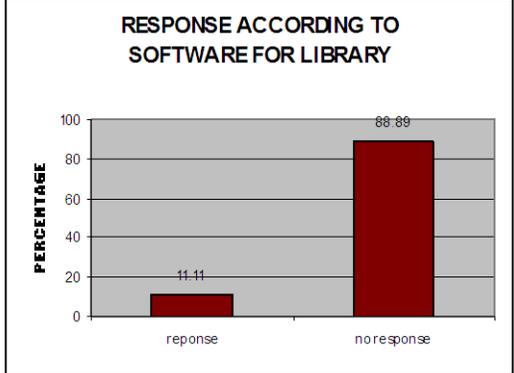
In 30% schools, school teachers have lack of awareness about ICT scheme.

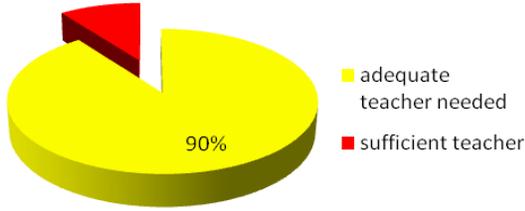
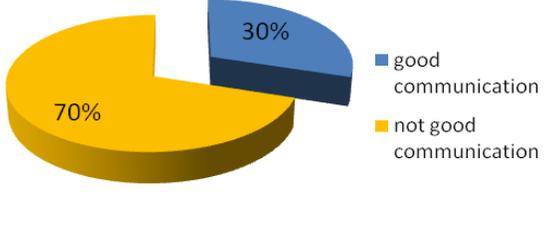
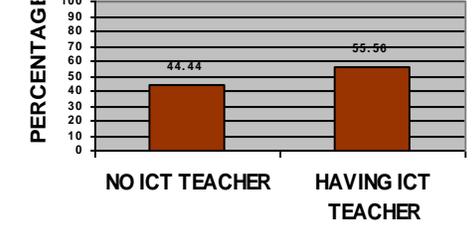
In 40% cases it is found that they use ICT for other purposes like preparing Salary sheets, class routine, documentary works, project works, notices etc.)

Some of the Computer labs become storehouses and undistributed DPEP books are kept in these rooms.

| <p><b>Awareness among Teachers</b></p> <table border="1"> <thead> <tr> <th>Awareness Category</th> <th>No of aware teachers</th> </tr> </thead> <tbody> <tr> <td>lac of awareness among school teachers</td> <td>3</td> </tr> <tr> <td>aware</td> <td>7</td> </tr> </tbody> </table> | Awareness Category   | No of aware teachers   | lac of awareness among school teachers | 3  | aware | 7  | <p><b>Use of ICT for school purpose</b></p> <table border="1"> <thead> <tr> <th>Use Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Use of ICT for doing School Activity</td> <td>60%</td> </tr> <tr> <td>Don't use ICT for doing School activity</td> <td>40%</td> </tr> </tbody> </table> | Use Category   | Percentage | Use of ICT for doing School Activity | 60%      | Don't use ICT for doing School activity | 40%            | <p><b>RESPONSE ACCORDING TO ICT LAB USE STATUS</b></p> <table border="1"> <thead> <tr> <th>Lab Use Status</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>lab as not storehouse</td> <td>11.11</td> </tr> <tr> <td>lab as a storehouse</td> <td>88.89</td> </tr> </tbody> </table> | Lab Use Status   | Percentage | lab as not storehouse | 11.11 | lab as a storehouse | 88.89 |
|--|--|--|--|--|-------|--|---|--|------------|--------------------------------------|----------|---|----------------|---|------------------|------------|-----------------------|-------|---------------------|-------|
| Awareness Category   | No of aware teachers   |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| lac of awareness among school teachers   | 3  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| aware  | 7  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Use Category   | Percentage   |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Use of ICT for doing School Activity   | 60%  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Don't use ICT for doing School activity  | 40%  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Lab Use Status   | Percentage   |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| lab as not storehouse  | 11.11  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| lab as a storehouse  | 88.89  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| <p>In 100 per cent cases students are interested and enthusiastic about computer classes.</p>  | <p>Lack of awareness about ICT in schools found in all schools.</p>  | <p>New syllabus specific (HS Compatible) is required.</p>                                    |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| <p>In 100% schools over all teachers' training have not been given. They are interested to get quality training in computer.<br/><i>State coordinator: "School wise teachers training will be arranged soon in school."</i></p>  | <p>In 40% cases it is found that schools have regular computer classes in their routine but other few schools are planned to do that and few don't have any regular computer class.</p> <p><b>Status of Regularise Computer Class</b></p> <table border="1"> <thead> <tr> <th>Status</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Have Regularise routine for computer class</td> <td>40%</td> </tr> <tr> <td>Don't have Regularise routine for computer class</td> <td>60%</td> </tr> </tbody> </table> | Status   | Percentage                             | Have Regularise routine for computer class | 40%   | Don't have Regularise routine for computer class | 60%   | <p>Subject specific learning tools- CDs, DVDs etc. also required.</p> <p><b>RESPONSE ACCORDING TO SUBJECT SPECIFIC TOOLS</b></p> <table border="1"> <thead> <tr> <th>Tool Type</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>CDs/DVDs</td> <td>55.55</td> </tr> <tr> <td>study material</td> <td>33.33</td> </tr> <tr> <td>updated syllabus</td> <td>11.11</td> </tr> </tbody> </table> | Tool Type  | Percentage                           | CDs/DVDs | 55.55                                   | study material | 33.33   | updated syllabus | 11.11      |                       |       |                     |       |
| Status   | Percentage   |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Have Regularise routine for computer class   | 40%  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Don't have Regularise routine for computer class   | 60%  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| Tool Type  | Percentage   |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| CDs/DVDs   | 55.55  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| study material   | 33.33  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| updated syllabus   | 11.11  |  |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |
| <p>50% cases it is found that ICT as a subject has not been incorporated in class routine.</p>   | <p>Subject specific software or programmes/CDs was not present in all schools. There is a big demand for this facility in schools.</p>   | <p>Immediate official version of antivirus software is needed in all old scheme schools.</p> |  |  |       |  |   |  |            |                                      |          |   |                |   |                  |            |                       |       |                     |       |

|   |  |   |
|---|--|---|
| <p style="text-align: center;"><b>Routine Prepared</b></p>  <p>50% prepared routine<br/>50% no routine</p>   |  |   |
| <p>It is found that there was a technical problem with the educational software.<br/><i>State coordinator replies : "The educational software have been changed."</i></p>   | <p>Students are more attentive in computer classes than other orthodox classes. But due to inadequate number of computer in respect to students' strength, teachers also facing several problems to teach.</p> | <p>At least one laptop is needed while operating the projectors for demonstration specially science subjects.</p>  |
| <p>100% cases it is found that the requirements of internet is the top most priority for the students and the teachers, 80% for infrastructural development, 70% for more educational kits, 30% for class room wise over-head projectors and class wise educational CDs/software, 80% for local on site/off site engineers.</p> | <p>Due to Madhyamik examination, information cannot be collected fully in some cases.</p>  | <p>Maintenance of hardware is difficult as outside mechanic is hardly available for old scheme schools.</p>      |

|  |  |  |
|--|--|--|
| <p style="text-align: center;"><b>Requirements</b></p>  <ul style="list-style-type: none"> <li>■ infrastructural development</li> <li>■ mre educational kits</li> <li>■ class room wise overhead projector</li> <li>■ off site/on site engineer needed</li> </ul> |  |  |
| <p>90% schools want to use ICT from class V-X.</p>   | <p>In schools projector (audio-visual apparatus) has been used. On specific subject they used to bring the students in the Learning Enhancement Programme (LEP) room which has made under SSM fund, where projector, laptop have been set out to demonstrate different subject related slides.</p> | <p>Time slot as per routine is insufficient for the large number of students' attendance.</p>  |
| <p>20% cases it is found that ready to use ICT equipments are used for Administrative work.</p>  <ul style="list-style-type: none"> <li>■ Using I.C.T. IN Admin. Work</li> <li>■ Reading Equipment</li> </ul>  | <p>In schools computer are being used for data entry for doing school work. HMs do not know whether this computer has come under the ICT scheme (even they first come to know about the ICT project). Therefore, only 1 computer is being used in HMs' rooms. Rests are left idle.</p>             | <p>Software for library operation (like LYBSIS) if given would be helpful where library of schools are functionally well.</p>  |
| <p>In 100% schools more computers are in need according to students' strength. They also demand efficient teacher / instructor for ICT teaching.</p>   | <p>For old scheme, the main problem faced by the schools is telephone bills for internet, electric bills and maintenance of old computers. The machines are having old versions and cannot perform up to the standard level.</p>   | <p>H.M. is non-cooperative and not proactive for the betterment of the computer lab.</p>   |

|   |  |   |
|---|--|---|
| <p><b>Teacher Needed</b></p>  <p>90% adequate teacher needed<br/>10% sufficient teacher</p>  |  |   |
| <p>40% ICT teachers say that class room wise over-head projectors and class wise educational CDs/software is needed.</p>  | <p>Due to non-receipt of valid appointment letter from the Venor many schools do not allow to join ICT teachers / instructors in their schools.</p>  | <p>Where ICT teacher is not available, Assistant Teachers are trying to run the show, but they need training accordingly.</p>   |
| <p>70% cases it is found that school has not good communication with vendors. HM and teachers do not know who is the vendor and what they are supposed to do.</p> <p><b>Communication with Vendor</b></p>  <p>70% not good communication<br/>30% good communication</p> | <p>ICT teachers are used for many other purposes like teaching lower class students when the regular teacher is absent. They are also given regular classes (not ICT classes) if their previous (graduation) qualification befits to any particular subject.</p> | <p><b>RESPONSE ACCORDING TO HAVING ICT TEACHER</b></p>  <p>PERCENTAGE</p> <p>44.44 NO ICT TEACHER 55.56 HAVING ICT TEACHER</p> |

### POSITIVE IMPACTS :

1. ICT in schools has an overwhelming impact among the student community. They are extremely enthusiastic about computer learning. Where a real initiative has been taken to eructate them, the result is substantial. In most of the cases they learn writing software, spreadsheet and presentation software. They also can differentiate between hardware and software.
2. Where it is used from class V, the children are also tremendously involved in acquiring computer knowledge. For them the vendor (IL&FS) developed some painting software where they can draw, identify and also through voice application can hear the name of the thing in English.

3. The e-content developed by the vendor (IL&FS) for class VII, IX & X is good enough. It is in Bengali vernacular along with voice application so that in the absence of a teacher that can be run without any disturbance.
4. In most of the cases, the first item, i.e. learning through audio-visual apparatus (projector) without internet facility has been started in all most all surveyed schools. The use of the projector is also not fixed. The vendor has given table on wheels so that the projector can be moved from one class to another as per the requirement of the teacher.
5. The enthusiasm and application of ICT has been found much intensive in interior schools of rural areas of a district rather than in the urban schools. The reason is in urban areas, students are mostly exposed to computer application (in many cases their parents have computers in their respective homes). The students are also habituated in mobile internet surfing. But it is like an innovation in rural areas where the students are mostly first generation learners and never seen computer outside their schools.
6. Where there is computer science and computer application remains as subjects in XI – XII standards and the schools have Computer teacher (MCA or Computer Science backgrounds) the application of ICT is much more fruitful in nature and systematic intervention has been taken place in teaching as well as in administrative areas of the schools.
7. In many cases it is found that teachers have developed very good presentations for the students in many subjects even in Bengali, English like literatures also.
8. ICT @ School scheme is a noble attempt on the part of MHRD to bring functional as well as technical literacy among the millions of students who are the backbone of India and in near future they cannot even think of doing anything without the help of ICT. To achieve the desired goal convergence among the line departments and coordination from top (Secretary, Higher Education) to bottom (Headmaster / headmistress / ICT teacher) is imperative.

### **LIMITATIONS :**

1. There is a huge gap in understanding about the fundamentals of ICT and ICT @ School scheme starting from the Government officials to teachers' level at school.
2. The District Inspectors of Schools not only unaware of the scheme, they are very reluctant to discuss the matter with PI. One of them even did not give time to meet the PI.
3. Most of the Headmasters / Headmistresses are totally unaware about the scheme. They could not differentiate between CAL programme and ICT @ School scheme. They do not even know who has given the machines and why. They also reluctant to give time for schedule fill-up processes.
4. Absence of internet facilities in most of the schools is the main cause of hopelessness among the students and teachers. They cannot surf, download and demonstrate their desired materials for the students. (To address the problem, the Vendor has taken up Dongle mechanism to provide internet through AIRTEL dongle, but it only for 50 schools of a district which is largely insufficient).

5. Many teachers cannot give up the habits of chalk and talk (orthodox system of teaching) and reluctant to replace the method of teaching with the new one (ICT).
6. The survey sometimes hampered due to different routine examinations, summer vacation, local strike and absence of headmaster/headmistress/ICT teacher in different schools.

**FEEDBACK COMMENTS FROM THE SECRETARY, SCHOOL EDUCATION, GOVERNMENT OF WEST BENGAL AFTER SUBMITTING THE INTERIM REPORT TO THE SCHOOL EDUCATION DEPARTMENT (SUBMITTED ON JULY 30, 2013, FEEDBACK RECEIVED ON JULY 31, 2013)**

- ✓ Networking is a major issue. The Technical Advisor of this department has been entrusted to resolve it in consultation with BSNL authority. In this mean time the BOOT Operator is being asked to arrange for mobile device (Dongle) connectivity for all schools till Broad-band connectivity is available.
- ✓ The Commissioner, School Education is being directed to make aware all DIs about the programme, who, in turn would inform the concerned school authorities. DIs might be given the role of District Administrator of the scheme.
- ✓ Salary of the instructor is really poor. The fact attributed to competition in tendering process. There may be hardly any scope of revise it (as the price has been fixed by the tender process). Even though, the Government may contemplate of raise the salary to minimum wages. In future, the salary component may be kept firm and outside of the tendering procedure.
- ✓ SCERT, WB may also be entrusted with preparation of ICT training module as per GoI Guideline for inclusion in the regular training course for teachers ( both pre-service and in-service).
- ✓ The oldest lot of machines supplied under the programme was sent to 543 schools during 2008. The machines are out of any maintenance contract at this time. The present status involving field level stock-taking followed by AMC and repair /replacement is being planned.
- ✓ Provision for instructor in 1400 school is very much required and the department is seriously contemplating the issue.
- ✓ State Level Monitoring and Evaluation may be done with the help of a professional and dedicated team mainly engaged through outsourcing.
- ✓ No fees, in any manner, is to be collected from the students of Elementary Level.
- ✓ A State Level Policy with Vision Documentation would be formulated.

***Submitted by : Prof. Amit Hazra, Professor, Rural Extension Centre and Principal Investigator, ICT @ School Project, Visva-Bharati, Santiniketan, West Bengal.***