No. 5548/RE/08   Dt. 27/05/08

M(MIS-PAS-CAE)208/RE

From:

> **Shri J. M Sardar**
> **Additional Director(Planning).**

To:

> Mr Ajay Oberioi ,Head & Sr Vice President,
> M/s Aptech Ltd , Aptech House ,65-A,MIDC
> Morof,Andheri(E) ,Mumbai-400093
>
> Mr Soumya Kanti , Senior Vice President-ICT
> Educomp Solution Limited ,514,Udyog Vihar
> Phase-III, Gurgaon ,Haryana-122001
>
> District Project Coordinators
> Angul/Baragarh/Bolangir/Boudh/cuttack/Dhenkanal/Keonjhar/Mayurbhanj/
> Nuapada/Sambalpur/Sonepur/Sundergarh/Balesore/Bhadrak/Gajapati/Ganjam/
> Khordha/Kalahandi/Kandhamal/Koraput/Malkangiri/Nawarangpur/Puri
>
> All Intervention heads/Officers of OPEPA

Sub –Sharing of the findings of the research study on Performance Assessment of Computer
aided Education under SSA

Sir

In inviting a reference to the subject cited above I am directed to inform you that the
executive summary of the study under reference is enclosed herewith for information and
wider dissemination of all the stakeholders i.e State Project Managers, Zonal Managers,
District Managers of M/s Aptech & M/s Educomp, Programmers and Pedagogy
Coordinators of (OPEPA) for undertaking various corrective measures in the weak areas
diagnosed by the institute in the study. Action taken in this regard may please be
communicated to OPEPA for information and follow up action within a month.

Yours faithfully,

Addl. Director(Planning) 26|5|08
OPEPA

Encl: Executive summary of the study report

Performance Assessment Survey on Computer Aided Education Program (BiCEP) in Orissa

EXECUTIVE SUMMARY

Computers are useful tools in assisting the process of learning and acquisition of the academic competencies. Computer in education is a powerful tool that may be used effectively and efficiently within the classrooms to create more exciting learning environment and deliver a higher level of educational expertise to students. This not only makes the learning interesting and joyful but also provides scope for creativity and innovativeness in thinking and approach of the children along with the teachers to enhance their potential to learn. The Sarva Shiksha Abhiyan (SSA), the national program for universalization of elementary education has correctly identified the need for computer education or computer based education for the children even at the elementary level. This sets rightly the tone of growth of mind with creative thinking and builds a good society.

As an innovative approach of Sarva Siksha Abhiyan, the School and Mass Education Department, Government of Orissa launched the Biju Pattanaik Computer-aided Education program (BiCEP) in the state on 24th September 2004. The program started in 600 elementary schools covering twenty four districts in a BOOT (Build Own Operate & Transfer) model. The Boot agency has to purchase and supply Computer Hardware, Software and connected accessories, maintain the hardware & software and provide education services (teachers training, refreshing training to teachers) in the schools for a contract period of 5 years. Two agencies viz. Ms. Aptech Ltd. and Ms. Educomp Datamatics ltd. were selected as the Boot agency to execute the program in the state and were assigned to implement the program in 300 schools covering 12 districts each.

The BiCEP aims at increasing the quality of education and create interest among the children and counterpart which will directly help to increase students' enrolment in school; maximize retention and minimizing the dropout rates. It also gives emphasis on capacity building of teachers on a digitized tool.

At the end of three years the program was evaluated by Xavier Institute of Management, Bhubaneswar, an external agency to find out the impact of BiCEP on children's education and to assess the performance of the Boot Agencies in terms of delivering the services according to the set guidelines. For the purpose of this study 300 schools which is exactly 50% of the total CAE

schools were selected using a purposive random sampling technique coving all the 24 districts. To elicit required information different categories of people such as students, teachers, parents, VEC members and staff of Boot Agencies as well as education department were interviewed.

Both the Boot agencies have implemented the program as per the prescribed guidelines. They have supplied three complete sets of computers [consisting of CPU, Monitor, Keyboard, Mouse, Speaker] along with three UPS and one Printer to each CAE school. So far as the supply is concerned all other items other than the UPS are of the agreed specification or that of a higher version. However, in about one third sample schools the UPS were found to be of lower capacity. With regard to hardware, problems exist in schools operated by both the agencies; but maximum problems were encountered in schools operated by Aptech. Such problems could have been attributed by many factors like power fluctuation, power failure and earthing problem as witnessed in 20 to 30 percent schools. The Boot agencies take the responsibility of repairing and replacing the hardware in case of damage or theft. The damaged and lost items are replaced in many schools, but the number of items replaced is comparatively more in schools operated by Educomp. This probably is the reason why hardware problems were observed in less number of schools operated by Educomp as compared to Aptech.

The District Project Office also plays an important role with regard to selection of schools for CAE implementation, site preparation, program monitoring and in terms of providing necessary support to the Boot agencies. Almost 80% of the schools selected for this purpose come under rural or semi urban areas where problems like continuous power failures and power fluctuations coupled with poor earthing to a major extent responsible for bringing a halt to the program operation.

Capacity building of teachers being a major component of the project to acquaint the teachers with computer applications occupied the central position in education. In collaboration with the District Project Office, the Boot agencies have conducted training program as per the provision. In most cases the training programs were found qualitative and helped the teachers to learn effectively. However, there is no follow-up to such programs to upgrade the skill and knowledge of the teachers due to lack of project provision.

Computer as a teaching tool is appreciated by majorities of the teachers. They find it a useful device that facilitates the process of learning by doing. It has been able to create interest among

Xavier Institute of Management, Bhubaneswar, 751013, Orissa

the students as well as teachers. But due to some problems like insufficient computers [in comparison to the students], less number of computer teachers, transfer of trained computer teachers to other schools, and non-functioning of computers due to the above cited reasons teaching through computers is sometimes receiving a setback.

The impact of computer aided education has been started getting reflected in the form of increase in enrolment, attendance and retention rate of children in the CAE schools. All these show a progressive trend. Besides, it was confirmed by the teachers, parents as well as the implementing agencies that CAE has been able to create lots of interest and creativity among the children. Not only this, it too has improved the performance of children in subjects like English, mathematics and science which are taught through computers in the CAE schools. A perceptible improvement is also apparent in the motivation and attitude level of both students and teachers towards education.

The perception of both parents as well the VEC members towards the CAE program is also very positive. No doubt the introduction of a computer could mobilize the parents as well as community members and leaders towards education. However, involvement of the VEC members is not yet visible in the CAE program management in most of the schools.

In the overall program implementation and management the role of both Boot agencies as well as the District Project Office is quite important. Though both the Boot agencies have put adequate efforts to run the program successfully; a better performance is marked in case of schools operated by M/s Educomp Solution ltd both in terms of execution as well as achievement. They were found to be more proactive in terms of addressing problems related to hardware as well as software in schools. The role of the District Project Office up to the selection of schools, site preparation, providing infrastructure support was quite visible. But in terms of monitoring of the CAE program they need to be more focused and provide more meaningful time. The ownership is yet to be percolated down to the Block and Cluster level in terms of management and monitoring of the CAE program.

To conclude, the Computer Aided Education program is a meaningful intervention in the state of Orissa. In this short period of intervention it is slowly and steadily progressing towards meeting its set objectives. However, if adequate measures are taken to minimize some of the identified gaps the program will put a landmark in the history of elementary education in the state of Orissa.