

## **OVERVIEW ON COMPUTER AIDED LEARNING (CAL) UNDER SARVA SHIKSHA ABHIYAN**

Sarva Shiksha Abhiyan (SSA) was launched with the objective to achieve Universalization of Elementary Education and fulfill the constitutional mandate of providing free and compulsory education for life to the children of age group 6-14 years. The reduction in drop out and repetition rate, enhancement in the achievement levels and making learning joyful are some of the objectives of SSA. It was felt that use of Information and Communication Technology (ICT) and computers in the form of Computer Aided Learning (CAL) may help in achieving the said objectives. Keeping this in view, a component of computer education was kept under the Functional Head of 'Innovation' in the framework of SSA. Under this component there is a provision of Rs.50 lakh per district per year available to the States for CAL.

2. Department of School Education & Literacy, with the objective to strengthen the CAL programme, constituted a Committee for formulation of Guidelines for Computer (IT) Education under SSA at elementary stage. The Committee, in its report has deliberated on the national and international status of CAL at elementary and primary level, suggested interventions for CAL under SSA, provides estimates of population which needs to be covered under the programme, the level of infrastructure and hardware needed, analysis of available resources, possibility of mobilization of additional resources and strategies for implementation of the programme.

3. The main interventions required for introduction of CAL and making use of ICT in Elementary Education, as suggested by the Committee are training of the teachers, creation of infrastructure, development and production of State specific e-teaching/ learning material in local language and sensitization of the State-level statutory bodies like Board of Education and SCERT. The first & most important tier is for training of teachers and necessary sensitization of States and their statutory bodies. The second tier suggested creation of infrastructure, development of e-teaching/learning material and formulation of scheme for making available additional resources. It was also suggested that pending formulation and approval of the scheme to mobilize additional resources, the available resources may be utilized for CAL and use of ICT in elementary education.

4. Role of private sector was considered equally important in not only implementing CAL in elementary stage but also for mobilizing additional resources. With this in view, workshops were held with representation from the private sector firms and all State/UT representative. The objective of the workshops was to review the progress of implementation of the CAL in States and to develop a public private partnership. The workshops also facilitated the information sharing on latest developments in the technology forefront. The first CAL workshop was convened in Bangalore on February 26-27, 2004. This was followed up with Workshops in Mumbai (August 12-13, 2004), Hyderabad (June 20-21, 2005), New Delhi (7.11.2006) and New Delhi (January 9-10, 2009). These workshops also provide a platform for State Project Directors and representatives of private firms face-to-face so that the former could specify the problems faced by them in the implementation of CAL in their respective States, and also the requirement in their States and the later could offer solutions that they have, if any, and the material - hardware and software - they could provide.

5. In addition to this a brainstorming workshop was organized in 2009 (September 15-16) by Department of School Education & Literacy with the objective of developing strategies for

implementation of CAL aligned to promoted pedagogy & quality goals. The workshop was attended by educationists most of whom were involved in the development of the national focus group paper on educational technology by NCERT. Besides other suggestions regarding the implementation of this intervention, the key recommendation of the Resource Persons was that, “the best strategy to implement & derive positive outcomes from IT integrated educational delivery mechanisms like CAL is to empower teachers for development of digital teaching learning material & their use. It is important to understand that the basis behind use of IT integrated mechanism must not be its mere availability, rather because of its qualities such as extendibility, reach ability, flexibility, interactivity that can overcome the situational gaps in teaching learning process”. It was also suggested by the resource persons that as these digital resources have immense power to reveal real life situations that, no other teaching learning material can do, using them efficiently can be most effective in difficult situations in teaching learning processes. The precise & innovative use of ICT capability powered by teachers’ own idea & creativity can perhaps be the mostly talked about paradigm shift and an approach for accomplishment of the vision of 21<sup>st</sup> century teacher role.

5. Due to all these efforts, since inception up till 2009’ March, 67188 schools have been covered under Computer Aided Learning, 102.61 lakhs children have been benefitted & capacity building on use of digital teaching learning material has been provided to 1.99 lakh teachers. Apart from this enormous teaching learning materials in state specific languages have been developed especially in Mathematics, Science & Languages at upper primary level.