

Enhancing Quality in Education by implementing ICT in the Schools: RTE Act-2009

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Abstract

The Indian elementary education system has been successful to some extent in achieving higher levels of funding, access, enrollment and infrastructure. However, high drop-out rates, low attendance, universal, equitable and quality elementary education for all continue to be a challenge. The RTE Act is a path breaking Act in the history of Indian Education towards providing quality elementary education to all, it is not without loopholes. Providing access to the free education for the children of downtrodden peoples is a complex issue in India wherein the fragmentation in the society along religious, ethnic and linguistic lines is deep rooted. In addition, rampant poverty which is the root cause of child labour leaves no time for the affected children to undertake formal schooling. In this paper we review various facets of and challenges in providing access to universal elementary education for the children. The paper also delves into various aspects of this ambitious aim and suggests measures for universalizing of elementary education. The Researcher would also highlight the importance of adopting ICT as a method of providing C in the schools, as most of the schools are still following traditional methods of teaching and hence students are not that motivated for learning, on the other hand ICT plays a vital role in enhancing quality of education. The present study would discuss the above factors while highlighting the quality indicators for achieving the quality in education.

Keywords: *Indian elementary education system, RTE Act, importance of adopting ICT, importance of adopting ICT.*

Introduction

The Constitution (Eighty-sixth Amendment) Act, 2002 inserted Article 21-A in the Constitution of India to provide free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right in such a manner as the State may, by law, determine. The Right of Children to Free and Compulsory Education (RTE) Act, 2009, which represents the consequential legislation envisaged under Article 21-A, means that every child has a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards. Article 21-A and the RTE Act came into effect on 1 April 2010. The title of the RTE Act incorporates the words 'free and compulsory'. 'Free education' means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education. 'Compulsory education' casts an obligation on the appropriate Government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age group.

The main aim of the act is to provide a legal framework that supports education of a descent quality for all the children in India, between the ages of 6-14 years. This framework was laid on the principals of equity, access and quality. The objective of the act was to enable children to get free and compulsory admission, attendance and completion of elementary education. It provides for a stress free environment and anxiety free education with prohibition of corporal punishment. It was to acknowledge the duties and responsibilities that teachers are to follow, establishing a system of accountability and ensuring that students get maximum benefits from the teaching-learning process.

Some of the key features of the act explain that:

- 1) All Indian children are to receive free and compulsory education in age group of six to 14 years,
- 2) Even if a child above six years was not admitted in any school or for some reason wasn't able to complete the elementary stage education, she/ he would be entitled to age appropriate education and will be admitted in class in accordance to her/ his age and will be given privileges of completing elementary education even after 14 years of age,
- 3) No child will be denied admission due to unavailability of age proof, certification will be given to children after completion of elementary education;
- 4) Proper infrastructure in schools which otherwise have to be upgraded within three years or school loses its recognition;
- 5) The law demands a fixed/ desirable teacher student ratio; private schools are to provide for 25% reservation for children from economically disadvantaged communities;
- 6) Quality of education and access need to improved;
- 7) School teachers need to be qualified in order to teach or gain a degree within five years or lose their jobs;

Information and Communication Technology May provide quality, equity and access to children in addition to supporting teaching-learning process in regions where teacher shortage or teacher-student ration is a matter of concern; multimedia is included for supporting best practices for imparting education; and implementation of cost-effective ways for reaching all children in the country and making RTE a reality. Principals from around twenty five schools were interviewed about their opinion about the implementation of information and communication technology. One a three degree scale (many, some and few), the observations made have been listed below in bold.

Majority of the Principals of the schools described ICT as a power that can help each and every child access education. A country where basic nutrition is unavailable; basic amenities such as water, food and toilets are unavailable; where we have high mortality, where we can not avail electricity or facilities of telecommunications, it is fair to say that access to education is a major concern. RTE in collaboration with schemes such as Integrated Child Development Services and Mid-day meal services, access and delivery of education to children across India can be made possible through ICT.

It can help make education become cost effective, flexible to reach children at any time and any place, help reduce drop-out rate, universal and cut across all the barriers.

Quality in Education

The National Policy on Education (NPE) 1986 (modified in 1992) envisaged 'universal access and enrolment, universal retention of children up to 14 years of age, and a substantial improvement in the quality of education to enable all children to achieve essential levels of learning'. The policy document of NPE emerged after the nationwide debate on National Policy on Education 1968, Challenge of Education 1984, and the curriculum frameworks of 1975 and 1988. The nation made commitment for universal access of education to all children at elementary stage. Various schemes of education at national and state levels were launched. Operation Black Board (OB), Minimum Levels of Learning (MLL), Programme of Mass Orientation of School Teachers (PMOST), Special Orientation of Primary Teachers (SOPT) and District Primary Education Programme (DPEP) were aimed to improve universal access, retention and improve the quality of school education. The impact of these programmes was visible and quality of school education improved to some extent.

The nation launched Sarva Shiksha Abhiyan (SSA) in 2000 – 2001 on a in mission mode to accelerate universal access, retention, bridging of gender and social categories gaps and improve the quality of education. SSA is the flagship programme of Government of India which aims at providing quality elementary education to all children in the age group of six to fourteen years. The National Curriculum Framework (2005) was developed by the NCERT and implemented to promote holistic view of education through restructuring of entire context and process of education

In all aspects of the school and its surrounding education community, the rights of the whole child, and all children, to survival, protection, development and participation are at the centre. This means that the focus is on learning which strengthens the capacities of children to act progressively on their own behalf through the acquisition of relevant knowledge, useful skills and appropriate attitudes; and which creates for children, and helps them create for themselves and others, places of safety, security and healthy interaction. (Bernard, 1999)

Quality education includes:

- Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
- Environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;
- Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace;
- Processes through which trained teachers use child-centred teaching approaches in well-managed classrooms and schools and skilful assessment to facilitate learning and reduce disparities;
- Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society.

Quality indicators

NCERT identified the following quality dimensions for the elementary education and developed Quality Monitoring Tools (2005) in collaboration with the States/UTs and MHRD which were implemented throughout the country. These are some indicators which are mentioned in National report submitted by NCERT(2010)

- **Teachers' Position in Schools**

With the implementation of RTE Act, 2009, it is expected that all the schools in the States/UTs should have teachers as per the Norms and Standards for a School prescribed in Schedule of the Act. In the present study it is considered that a State/UT may be treated having teachers as per RTE norms if 90 per cent or more schools in the State/UT have teachers as per RTE norms.

- **Enrolment and attendance**

- Students' Average Daily Attendance
- Steps taken to improve attendance
- Enrolment of out of school children in age appropriate classrooms
- Special Training Centres
- Children with special needs
- Time of Admission and problems faced during admission

- **Textbook distribution in schools**

The States/UTs distributing textbooks within a week of the beginning of the session have been treated as 'good'.

- **Completion of syllabus within the specified time**

The schools of States/UTs completing the syllabus in specified time have been treated as 'good'.

- **Classroom process and teacher effectiveness**

The following classroom processes were observed by CRCCs for determining the teacher effectiveness.

- i. Students' mental harassment
- ii. Relevant activities by teachers during teaching
- iii. Encouraging students to ask questions
- iv. Free expressions of feelings and problems by children
- v. Gladly answering students' questions by teachers
- vi. Use of students' experiences for developing lessons
- vii. Proper use of blackboard / Use of ICT
- viii. Encouraging students' participation through teacher questioning
- ix. Students' continuous assessment
- x. Classroom management
- xi. Teacher Effectiveness

- **Learner's Achievement**

- Learner's Achievement at primary stage
- Learner's Achievement at the Upper Primary stage

- **Teacher Training**

- In service teacher Training
- Induction training for newly appointed teachers
- Training of Untrained Teachers
- Use of training Inputs in classrooms

ICT and Quality

This Section will help us understand the role of ICT in enhancing the quality of Education. Information and Communication Technology has permeated in every walk of life affecting the technology fields such as launching satellites, managing businesses across the globe and also enabling social networking. The convergence of computer, communication and content technologies, being known as ICT, have attracted attention of academia, business, government and communities to use it for innovative profitable propositions. Year by year it is becoming simpler to use devices such as desktop, iPod etc.

21st century is characterized with the emergence of knowledge based society wherein ICT plays a pivotal role. The National curriculum framework 2005 (NCF 2005) has also highlighted the importance of ICT in school education. With this backdrop, major paradigm shift is imperative in education characterised by imparting instructions, collaborative learning, multidisciplinary problem-solving and promoting critical thinking skills.

Government of India has announced 2010-2020 as the decade of innovation. Reasoning and Critical thinking skills are necessary for innovation. Foundation of these skills is laid at school level. It is desirable that affordable ICT tools and techniques should be integrated into classroom instructions right from primary stage so as to enable students develop their requisite skills.

With the help of ICT tools students at this level are able to grasp a lot by hearing voices or sounds and animated motion of various animals. Language learning is also taught at this level. To know a new language at this age is easier as compared to other levels. Multimedia projector & computer can be used to teach phonetics and pronunciation. Lessons, poems & lectures by eminent scholars stored in computers or other ICT tools can easily be shown to the students time and again anywhere. Such type of teaching and learning retains for long time in the

minds of the children. At high school level subjects like History, Geography, Political science, Physics, Chemistry, Biology, Physical education etc are taught. Lessons in these subjects can easily be taught by showing small movie related with the subject to create interest among the students. Such type of movies and related multimedia material is easily available at academic repositories and from various related sites with the help of Internet. Internet is basic tool which can be utilized by teachers and students to find any information on any topic. This type teaching –learning makes the environment very interactive and is liked by students. Educational and practical CD's available in the market make this task easier to implement.

The role of ICT in formal education in India has thus far been largely supplementary to traditional forms and models of teaching and learning. Information Technology (IT) interventions in past have shown that they invariably have a way of changing existing business processes and models. Many a times such interventions result in disruptive change. India today faces a digital and gender divide in education. Coupled with this there is also an acute shortage of good teachers and availability of infrastructure to overcome this divide. These are all conditions for a disruptive change, and opportunity, if ICT is to take on the challenge of "Quality of Education to all". India can actually lead the world in developing new models of learning.

Challenges and Solutions of implementing ICT based Education

One of the major challenges for quality control in education is lack of standards for parameters to measure the quality of education. For the solution of this all the accreditation bodies like NAAC,NBA,AICTE,CBSE and other authorities must sit together and circulate a standard list of parameters to decide the quality of education. Development of ICT has changed the epic centre of knowledge and hence in many of the cases student is more informed than the teacher. Teachers lack adequate qualification and training and their lesson plans are most often outdated or irrelevant. Setting up the ICT devices can be very troublesome. It is expensive to afford it is hard for teachers to use with a lack of experience using ICT tools. These reasons destroy the available quality of education.

- Most of the teachers are not willing to introduce new technologies to themselves first and subsequently to their students. There is resistant from teachers, basically from older teachers as compared to younger ones, to apply ICT in their subject.. Hence teachers need to update their knowledge and skills as per change in the curriculum and technologies.
- At present, ICT in school education is strictly limited to a handful of elite schools. Beyond that, it's just a computer lab that's held apart from the conventional educational process. Various ICT tools must be available and it must be accessible at demand. Many schools have limited resources for buying books, stationery, furniture and other classroom materials. Role of private sector providing services in such sectors may be taken into account. Rural population may not be able to pay hefty amount to utilize such ICT resources for education.
- One of the major challenges in the implementation of ICT in education is the initial thinking that is based on the technology. ICT hardware and software are not designed as per educational purposes rather they are designed for general purpose. One first thinks about the available technology and then a try is being made to apply it into education field, but if we look at in reverse way then possible outcomes may be more useful and may give good results.
- As per latest tradition only special subject like IT or ICT is available and that is also optional one there is need for to have basic knowledge of computers and IT to utilize various ICT tools to be used for teaching learning. Only computer teachers would not be able to carry this important mission of being agents of change. To sort out infrastructure problems for providing ICT education in schools one can split the screen in half vertically and at two sets of an application can be displayed and used by two users (students) simultaneously. Because one student may use the keyboard and another may use mouse, each student can work independently of the other.
- A lot of information available online may dissuade student learning. Students can feel isolated in absence of classroom like environment. Computer Programmes at various levels of quality parameters can be used

to control, manage and put strict discipline in the campuses through use of computer application for Curriculum development, Teaching and learning, Research and extension, Governance and leadership, infrastructural facilities and use of expert system in suggesting intelligent decisions to top management in policy making and other important areas in higher education.

Conclusion

A number of measures have been taken for quality improvement in school education which includes development of infrastructure, curriculum, human resources, etc inspite of all these efforts, the Indian school education could not climb the ladder of quality so far. Quality in education through ICT and its awareness among stakeholders will have positive impact on the society. ICT can be helpful in quality and standards of education by implementing it in various phases of education but for that we need to be aware of the fact that ICT is just a tool and it is run by concerned person. Use of ICT is growing speedily in education sector but maintaining the quality is the sole responsibility of all human beings which are stakeholders of education system. Though ICT oriented mechanism are using in education by private schools at all levels but use at large scale is still not in vogue. Thus govt should increase participation of ICT mechanism to make whole education system up to date. ICT may work as panacea to all problems including quality degradation which have been the part and parcel of our education system.

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