# "ICT in School Education – A Case Study of Primary and Secondary Education"

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***Abstract – The United Nations' Millennium Development Goals (MDGs) two and three are about achieving universal primary education and promoting gender equality, respectively. The MDGs in education are defined in terms of participation and completion of primary education by all children and the elimination of gender discrimination in education. Despite the continued efforts of the various Governments on universalizing the primary and elementary education, through a wide range of programmes and schemes, access to quality education continues to be an obstacle in the achievement of the education goals. For instance, in India, during 2004 – 05, while the Gross Enrolment Ratio for children enrolling in classes I to VIII was 97 percent, the Drop-out Rate for the same classes was as high as 46 percent. Recognizing this, the Government of India's flagship education programme at the primary level - the Sarva Shiksha Abhiyan (SSA) - has streamlined its focus on 'quality'.***

***Keywords: ICT, Primary, Secondary Education, School, Etc.***

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## INTRODUCTION

As is being increasingly articulated, if after spending large sums of money on programmes and schemes, countries have not become fully literate, it is time that innovative and cost effective methods be put in place to address the problem of education in these countries [1]. While this is a larger problem and points to the need for reform in the educational systems of these countries at various levels - pedagogical, curricular, as well as institutional, the emergence of various Information and Communication Technologies (ICTs) and their increasing acceptance and adoption by society provide unique opportunities and could potentially promote education on a large scale [2]. While there is no conclusive research to prove that student achievement is higher when using ICTs in the education space, either in the developed or developing countries, there is a general consensus among practitioners and academics that integration of ICTs in education has a positive impact on the learning environment [3]. It is understood that in diverse socio-economic and cultural contexts ICTs can be successfully employed to reach out to a greater number of Primary, Secondary students, including those to whom education was previously not easily accessible, and help in promoting learning, along with exposing students to the technical skills required for many occupations.

## REVIEW OF LITERATURE:

ICTs act as and provide students and teachers with new tools that enable improved learning and teaching. Geographical distance no longer becomes an insurmountable obstacle to obtaining an education [4]. It is no longer necessary for teachers and students to be physically in proximity, due to innovations of technologies such as teleconferencing and distance learning, which allow for synchronous learning. ICTs in schools provide an opportunity to teachers to transform their practices by providing them with improved educational content and more effective teaching and learning methods. ICTs improve the learning process through the provision of more interactive educational materials that increase learner motivation and facilitate the easy acquisition of basic skills [5]. The use of various multimedia devices such as television, videos, and computer applications offers more challenging and engaging learning environment for students of all ages. A study conducted by the International Institute for Communication and Development (IICD) indicated that 80 percent of its participants felt more aware and empowered by their exposure to ICT in education, and 60 percent stated that the process of teaching as well as learning were directly and positively affected by the use of ICT [6]. Twenty-first century teaching learning skills underscore the need to shift from the traditional teacher-centered pedagogy to

more learner-centered methods. Active and collaborative learning environments facilitated by ICT contribute to the creation of a knowledge-based student population [7]. Education leadership, management, and governance can also be improved through ICT by enhancing educational content development and supporting administrative processes in schools and other educational establishments.

**1. ICT–Rural Education in India:**

As per the 2011 census, 72.2% of the population lives in rural areas about 638,000 villages and the remaining 27.8% lives in more than 5,100 towns and over 380 urban agglomerations. Among all the above mentioned educations techniques adequate in rural India have to change according to the 21st Century [8]. The main aim of this study is to elevate the Scope, Purpose and Methodology adopted for computer education in Rural India. Information and Communication Technology (ICT) is one of the rapid development technological fields in the global society. Among the developing countries India reached a significant position in development of ICTs. Particularly in the field of education its development is tremendous. There is no doubt in the near future's development will based on ICTs.

**2. ICT Tools:**

There are various ICT tools available which can be utilized for the knowledge creation and dissemination in the modern world. Tools include Radio, T.V, Internet, Mobile phone, Computer, laptop, tablets and many other hardware and software applications. Certain ICT tools like laptops, PCs, mobile phones, and PDAs have their own implication in Education. These devices can be used in imparting education and training for teachers and students. Many of the ICT tools are much hyped but have not given fruitful results till now. Use of radio for pedagogical practices has been very much popular in past and is still in use in India by IGNOU. But One-to-many broadcast technologies like radio and television are seen as less revolutionary' ICTs in education, as their usage is seen as reinforcing of traditional instructor-centric learning models, unlike computers, which many see as important tools in fostering more learner-centric instructional models . Successful ICT initiatives meet three intertwined objectives: availability, access, and demand [9-11]. Educational ICT tools are not for making educators master ICT skills themselves, but for making educators create a more effective learning environment via ICT. Teachers can utilize ICT tools to get benefits from using these tools in the areas of content, curriculum, instruction, and assessment. ICTs include fixed-line telephony, mobile telephony, newspapers, radio, television, radio trucking, very small aperture terminal (VSAT), computer, and internet must be accessible to rural public as per their demand.

**3. The Role of ICT in Improving the Quality of School Education:**

School Education has a great role for a country. It is the grass root level for any country. Any type of failure in this stage may become a country backward. It is considered only two or three goals in this level of education. Among them Universal Primary Education and Gender Equality are main. Government of India has taken many programmes and schemes for Universalizing the Primary and Elementary Education. In modern society ICT plays a remarkable role in School Education [12]. ICT in schools provide lots of opportunities to teachers to transform their practices by providing the learners with improved educational content and more effective teaching and learning methods. ICT improves the learning process through the provision of more interactive educational materials that increase learner's motivation and facilitate the easy acquisition of basic skills. In Primary and Secondary level the use of various multimedia devices such as computer application, OHP, videos, television e. t. c. offer more challenging and engaging learning environment for students. In twenty first century teaching learning skills underscore the need to shift from traditional teacher centered pedagogy to more learner centered method [13]. Active collaborative and cooperative learning environment facilitated by ICT and its gadgets. Not only teaching learning system but also administrative system can be improved by the use of ICT is an acronym that stands for

- Information
- Communication
- Technology.

**4. Availability of Infrastructure to Support ICT:**

A country's educational technology infrastructure sits on top of the national telecommunications and information technology infrastructure. Availability of adequate infrastructure to support the deployment of ICTs in schools is a tremendous challenge that schools in the region currently face [15]. Apart from the high initial cost of purchasing and setting up the requisite infrastructure, the maintenance and upgrade costs, as well as the cost and effort of supporting such infrastructure are also roadblocks to the successful usage of ICTs in schools, especially in poor and remote areas.

**5. Availability of Funds to Implement ICTs:**

Given the current budgetary and resource constraints of various Governments, a widespread investment in ICTs in education is probably not possible in most developing

countries. It is, therefore, critically important to better understand the cost-benefit equation of the wide range of ICT options and uses in order to effectively target-spend the scarce resources.

Economies of scale are achievable in distance education, although such Programmes typically require large up-front investments [14]. Some of these costs may be shifted from the public sector to the individual users, but this in itself raises significant equity and access issues.

## CONCLUSION:

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. ICT can be employed in formal and Non-formal types of education and would eventually make the learners employable and socially useful part of the society. By employing ICT in teacher training can save a lot of money of the Government. Moreover a lot of qualitative improvement can be seen as resource persons for the training can be best of the world. By employing ICT in administration can help in solving the problem of Absenteeism of students and teachers. Good quality content is one of the major issue and directly affects the standards of education and quality. By overcoming the certain challenges involved in the process of education can help a lot in this side. Conclusively a lot of quality improvement is possible after careful and planned implementation of ICT in education by various stakeholders.

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