

## ROLE AND USAGE OF ICT IN SCHOOL EDUCATION

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### *Abstract*

*When we are working on a computer, the information goes into short term memory. Unless we deliberately save the data onto long term storage, it is lost very quickly. The method we use to save new information that is presented to us determines that we most likely will retrieve it in the future. Similarly the concepts that are explained to the students have to be sent to their long term memory, i.e the abstract has to be made into the concrete form. This is possible by using ICT in classroom situation for making a merry in understanding the concepts if the school education and life. The usage of ICT will not only enhance learning environment but also prepare, next generation for future lives and career as said by Wheeler.*



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### Introduction

ICT is an acronym that stands for Information communication and Technology. Information and communication technology is a diverse set of technological tools and resources used to communicate and to create disseminate, store and manage information. Initially the thrust if ICT was focused on handling textual information in scientific sector, in later years the use and application of ICT could not remain limited but gradually got broadened to encompass other fields of operation, areas and professions. ICT has a potential to be used as a supportive educational tool enabling students learning by doing. ICT can make it possible for teachers to engage students in self paced, self directed problem based or constructive learning experiences; and also test student learning in new, interactive and engaging ways that may better assess their understanding.

Any educational programme that is purely delivered through ICTs or with ICT delivered content as the primary backbone of the teaching-learning process, such as online courses through the web, is ICT enabled education. This form of education requires ICT access and requires that the learner use ICTs as a primary or basic medium of instruction.

The ICT B.Ed evaluation provides an evidence that many teachers use ICT to support innovative pedagogy. ICT is being integrated in a continuous process, therefore ICT can

improve teaching by enhancing an already practiced knowledge and introducing new ways of teaching and learning.

It is very Interactive , low per unit cost, can serve multiple teaching functions and diverse audiences, instant delivery of information, though it is low per unit cost, it has high start up infrastructure cost. It tends towards centralized uniform content in economies of scale, also creates new class of knowledge rich/ knowledge poor.

### **Role of ICT in 21st Century's Teacher Education:**

ICT helps teachers in both pre-service and in-Service teachers training. ICT helps teachers to interact with students. It helps them in preparation their teaching, provide feedback. ICT also helps teachers to access with institutions and Universities, NCERT, NAAC, NCTE and UGC etc. It also helps in effective use of ICT software and hardware for teaching – learning process. It helps in improve Teaching skill, helps in innovative Teaching. It helps in effectiveness of classroom. It also helps in improving professional Development and Educational management as well as enhances Active Learning of teacher Trainees. g. In order to introduce ICT in pre-service teacher education different methods and strategies are applied. Different tools are used such as word processing, Database, Spreadsheet etc. Various technology based plans are used to help the teachers for their practice teaching. ICT prepares teacher for the use of their skills in the real classroom situation and also make students for their future occupation and social life. ICT used as an „assisting tool“ for example while making assignments, communicating, collecting data & documentation, and conducting research. Typically, ICT is used independently from the subject matter. ICT as a medium for teaching and learning. It is a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks. ICT as a popular tool for organisation and management in Institutions. If the teacher is highly equipped with technology, the student will also be equipped with technology. It removes the traditional method of teaching and prepare teacher to apply modern method of teaching. ICT is a store house of educational institution because all educational information can safely store through ICT.

### **Technology integration in classroom:**

Technology has indeed revolutionized the world. The current generation of students learns better, when they are taught with the aid of technology. Blogs, podcasts, and wikis are

powerful tools now available for teachers and students and if used in the classroom it can do wonders for students who now days are technologically advanced. I believe that there are numerous benefits in using technology, and teachers have to learn to use it to their advantage in “doing things differently” and not just “doing different things.” Integrating technology in my classroom is going to very interesting. I love technology and I hope my students share the same passion I have for technology.

**Environmental factors that prevent teachers from using technology:**

Inadequate hardware and software

Inadequate technology for using the classroom

Quantity and quality of software is not up to the requirement.

Up gradation of the peripherals and other requirements are not attended regularly.

**ICT as a tool for knowledge construction in school education:**

In twenty first century teaching learning skills undergone a major pedagogy shift from traditional teacher pedagogy to more learner centered method implementing constructive approach. The National curriculum framework 2005 (NCF) has also highlighted the importance of ICT in school education to facilitate this learner centric education. ICT enables active, collaborative and cooperative learning, multidisciplinary problem-solving and promoting critical thinking skills.

- 1.Strengths of an ICT are it is applicable to use for both elementary and Intermediate students.
- 2.It is a good way to motivate students to learn English
- 3.It is designed from general to specific topics related to the students background.
- 4.The teachers can point out certain difficult vocabularies taken from the topics and explain or put them in to exercises so the students will learn a lot.
- 5.Students can improve their listening skill, pronunciation and at the same time enriching their vocabulary because they can listen how the words in the dialogue are pronounced.
- 6.Students can repeat doing the same activity when they are not satisfied with their achievement and this will make them learn more from their mistakes.
- 7.Easier planning and preparation of lessons and designing materials.
- 8.Gains in ICT literacy skills, confidence and enthusiasm.
- 9.Computer use during lessons motivated students to continue using learning outside school hours.

### **ICT helps students with Special needs:**

1. ICT is used for teaching only some subjects (Informatics, Mathematics ,Biology ,Statistics, Bookkeeping, Typing. )
2. Some teachers hesitate to use ICT.
3. Self evolution was incomplete or in accurate demonstrating that senior leaders did not have a clear understanding of their schools strengths and weaknesses in ICT
4. There was no discrete ICT development or action plan produced by the ICT coordinator, where one did exist the priorities were not adequately informed by the outcomes of monitoring and evaluation.
5. There was no monitoring of achievement in ICT of the progress made by individuals or groups.
6. Not enough resources/computers for each classroom.

Financial Problems.

### **Conclusion:**

Teaching occupies an honorable position in the society. ICT helps the teacher to update the new knowledge, skills to use the new digital tools and resources. By using and acquire the knowledge of ICT, student teacher will become effective teachers. ICT is one of the major factors for producing the rapid changes in our society. It can change the nature of education and roles of students and teacher in teaching learning process. Teachers in India now started using technology in the class room. Laptops, LCD projector, Desktop, EDUCOM, Smart classes, Memory sticks are becoming the common media for teacher education institutions

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