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Role of Information and communication technology (ICT) in Education

Mr. Sunil Saini

Asst. Professor

Department of Economics

RBS Degree College, Thanwas

Sunil.saini367@gmail.com

Abstract:

ICT stands for Information and Communication Technologies. ICT is a part of our lives for the last few decades affecting our society as well as individual life. ICT which is now broadly used in educational world. Teacher, Student, administrator and every people related to education are popularly used ICT. Teacher use ICT for making teaching learning process easy and interesting. A competent teacher has several skills and techniques for providing successful teaching. So development and increase of skills and competencies of teacher required knowledge of ICT and Science & Technology. In modern science and technological societies education demands more knowledge of teacher regarding ICT and skills to use ICT in teaching —learning process. This essay describes some benefits of implementing ICT in classroom, especially within the area of collaborative and self-managed learning. However, implementing ICT in classroom is not an easy and simple matter. There are many issues which should be addressed. Those issues range from the school culture, teachers barriers, finance, leadership, curriculum, and ethical issues. The use of

ICT in education has intensely reformed learning and teaching processes. Furthermore, it has expanded new opportunities for learning and accessing to educational resources beyond those traditionally available.

In this condition, the use of ICT in education creates a method of training called E-learning. This paper attempts to investigate advantages, disadvantages, conveniences and limitations of applying ICT.

Keywords: ICT, Educational policy, Educational benefits, learning activities.

Introduction:

Recently, the development of ICT gradually replaces the traditional teaching pedagogy. Face to face classroom interaction is getting replaced by on-line communication, traditional white or blackboard is getting replaced by interactive whiteboard, and books or printed resources are getting replaced by on-line resources. It is believed that technology can bring our education sector from the Dark Age to the light age. This is because the implementation of ICT in schools can bring about some potential benefits. However, to obtain those benefits we have to overcome its enormous difficulties. These difficulties may vary from school to school, from region to region, and from country to country. Today's age of 21st Century and it is also the age of information and technology (IT). Every aspects of life are related to science and technology. Huge flow of information is emerging in all fields throughout the world. Now information and technology is popularly using in educational field for making teaching learning process successful and interesting for students and teacher both. In 1998, UNESCO World Education report refers about student and teachers must have sufficient access to improve digital technology and the internet in their classroom, schools, teacher educational institutions. Teachers must have the knowledge and skills to use new digital tools to help all students achieve high academic standard. The quality of professional development of teacher education depends on the extent of ICT integration in teacher education programme. According to UNESCO (2002) "ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application

and association with social, economic and cultural matters". Teachers are at the core of any living society. Technologies play an important role in training programmed of teachers. Students" accesses knowledge and information through TV, digital media, cable network, internet and social media i. e. Facebook, Twitter, Whatsapp, tiktok, Wechat etc. ICT is very important for Preserves teacher education programme in the 21st Century. Without proper knowledge of ICT teacher cannot perform in his/her class room and it could not be said to be a complete one. In the context of educational institutions ICT has a major impact on teaching, learning, research and management. During last twenty years many educational institutions have heavily invested across the globe on ICT Application and its infrastructure development. In our country education system is also not an exception and it is witnessed a series of changes that have brought an increase in the market size of the education industry in India. The government has taken many initiatives for the development of education infrastructure which includes the development and implementation of ICT applications and it has been identified as a catalyst for country's transformation from a production based economy to a knowledge based economy.

Need and Significance of the study:

The scenario of the classroom is changing. There is a technological gap between the progress of the society and instructional activities of the teacher in the classroom. If we see in our society on the one hand technology has revolutionized our society and on the other hand the teaching learning activities at school level have remained so far away from technology. In our classroom the knowledge is imparted by the teacher in an ancient way, a teacher centric mode which is most of the time boring and not to gain interest to the student.

The objective of the present study is:

To find out the benefits, need and importance of ICT in Education.

Methodology:

This present study is based on secondary sources like books, Articles, Journals, Thesis, Univers ity News, Expert opinion and websites etc. The method used is Descriptive Analytic method.

Benefits of ICT in education:

- The ICT methods are very effective in clearing the core concepts of the subject matter; this
 has been proven in enhancing the students level of understanding and retaining the
 knowledge.
- The barrier this technology breaks is both linguistic and geographic as the information can be shared quickly and efficiently over the cloud thus, providing they access to quality education anytime and anywhere.
- This method makes content more enjoyable thorough engaging narratives and high quality animation, making the whole session more interactive. This improves the retention capacity of the students, brings in more focus and makes the whole process enjoyable.
- Active and independent learning are forte of this method which inculcates selfresponsibility and maturity for learning.
- The Childs progress can be mapped in the form of an electronic journal which will help teachers and students to identify the strong and weak points.

Need of ICT in education:

- Education as a lifelong process therefore anytime and anywhere access to ICT is the need.
- Information explosion is an ever increasing phenomena therefore there is requirement to get access the information.
- Education should meet the needs of variety of learners and teachers; therefore ICT is important in meeting this need.
- ICT is requirement of the society that the individuals should possess technological literacy.
- We need to increase access and bring down the cost of education to meet the challenges of illiteracy and poverty-ICT is the answer.

Importance of ICT in education:

ICT referred to as the varied collection of technological gear and resources which are made use of to communicate. It is also made use of to generate, distribute, collect and administer informat io n. It consists of the hardware, software, networks, and media for collection, storage, processing,

transmission and presentation of information i.e.; voices, data, text, images as well as related services.

- Reduce time on many routine tasks.
- Immediacy to information and access to the source of information.
- Better accesses to children with disabilities.
- Access to variety of learning resources.
- Distance Education, Online Education.
- Multimedia approach to education, authentic and up to date information.
- Access to Online Libraries, Repositories, access to Open Courseware and Open Educational Resources and
- Teaching of different subjects made interesting, and educational data storage.

Conclusion:

Implementing ICT in schools/education has many benefits and difficulties. Each school has its own barriers depending on its contextual factors. Generally the difficulties can be classified into four kinds of barriers. Those are technological barriers, teachers' refusal, students' refusal, and poor schools' technological system. To successfully implement ICT in schools need to consider many aspects. It will waste a lot of time, energy, and money if before implementing it, we do not consider those aspects. Those are the schools' culture, leaders, ethics, and technological management system. In order to cope up with the digital culture the educational institutions are adopting modern technologies of ICT to create the teaching and learning environment. To manage the organization data, accessing the information, maintaining their financial transaction, library services, etc. require adopting latest tools and techniques of ICT in the premises to provide the best services. Recently, the Govt. of India has launched SWAYAM portal which given the online reading material, video, in different courses and using ICT tools to provide education to the outreach.

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