ICT AND E-LEARNING–CATALYSTS FOR QUALITY OF EDUCATION

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ABSTRACT: *ICT is an acronym that stands for Information Communication Technologies, that includes all technologies for the manipulation and communication of information. Learning through new ICTs is also called e-learning. Information and communication technology (ICT) is an indispensable part of the contemporary world. There are various ICT tools available Radio, T.V, Internet, Mobile phone, Computer, laptop, tablets and many other hardware and software applications. Many of the Teachers can utilize ICT tools to get benefits from using these tools in the areas of content, curriculum, instruction, and assessment. ICTs are a potentially powerful tool for extending educational opportunities. The use of ICT is making major differences in the learning of students and teaching approaches. ICT supported learning environments could be beneficial to a constructivist teaching approach. One of the major advantages of using ICTs in the education system has been to prepare the present and next generation of students for a workplace where ICTs particularly computers internet and other related technologies are becoming more and more ubiquitously. E-learning (or e-Learning) is the use of electronic media, educational technology and information and communication technologies (ICT) in education.   e-learning depends on the self-motivation of individuals to study effectively. The higher education sector plays a vital role in the social and economic development in any country from all over the world. The process of education using ICTs can be classified in: e-learning, blended learning and distance learning. The concept of e-learning has emerged from distance learning and offers new methods for distance education based on ICTs. E-learning is the modern form of distance education supported and driven by ICT and is characterized by any place and anytime learning. The use of ICT in education not only improves classroom teaching learning process but also provides the facility of e-learning.*

Keywords: ICT, E-Learning, Quality of Education, Teaching-Learning, Teleconnections.

I. Introduction:

ICT is an acronym that stands for Information Communication Technologies, that includes all technologies for the manipulation and communication of information. Broad definition of ICT includes radio, television, satellite, mobile phones, computers and the internet. It can be divided into two groups; traditional ICT namely radio, television and the new ICTs like internet and telecommunications. Learning through new ICTs is also called e-learning. Information and communication technology (ICT) is an indispensable part of the contemporary world. It is a force that has many aspects of the way we live, and also an electronic means of capturing, processing, storing and communicating information. The potential of information and communication technologies today, from the time we awaken in the morning to the time before we sleep, we are surrounded by media, such as newspapers, radio, television and computers. The education has vital role in building the society. Quality of education helps to empowering the nation in all aspects. There are many ways to increase the learner's knowledge, and technology is the most effective way.

II. Objectives of ICT in Education:

1. Improvement in learning pace and achievements.

2. Increased acquisition of knowledge, skills by individuals required for better living and sustainable development.

3. To promote and facilitates the relationship between human and the environment.

4. To implement the principle of long lasting education.

5. To increase the variety of educational methods and services and literacy rate through distance education.

6. To promote the technology literacy among citizens, and the equal importance to slow and gifted children.

III. 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 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 trunking, very small aperture terminal (VSAT), computer, and internet must be accessible to rural public as per their demand.

IV. Role and Benefits of ICT in the field of Education:

ICTs are a potentially powerful tool for extending educational opportunities. The use of ICT is making major differences in the learning of students and teaching approaches. ICT can also be used to do complex tasks as it provides researchers with a steady avenue for the dissemination of research reports and findings. Role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy, if ICT is properly used; it holds great promise to improve teaching and learning in addition to shaping work force opportunities. The main roles of ICT in education are:

1. To develop variety of educational services and medium.

2. To promote equal opportunities to obtain education and information.

3. To develop a system of collecting and disseminating educational information.

4. To promote technology literacy and support distance learning.

5. To support sharing experience and information with others.

6. Helps in improving innovative teaching skills and makes classroom teaching effective.

7. Acts as an assisting tool for teaching and learning itself

8. ICT helps teachers to motivate students and develop interest in learning.

9. ICT is store house of educational institution because all educational information can safely store through ICT.

10. ICT helps teachers to communicate properly with their students. So ICT bridge the gap between teacher and students and plays an important role in student evaluation.

V. ICTs help improve the quality of education:

Improving the quality of education and training is a critical issue, particularly at a time of educational expansion. ICTs can enhance the quality of education in several ways:

☐ by increasing learner motivation and engagement,

☐ by facilitating the acquisition of basic skills, and

☐ By enhancing teacher training. ICTs are also transformational tools which when used appropriately, can promote the shift to a learner-centered environment.

ICTs such as videos, television and multimedia computer software that combine text, sound, and colorful, moving images can be used to provide challenging and authentic content that will engage the student in the learning process.

VI. The importance of ICT in Education:

ICT supported learning environments could be beneficial to a constructivist teaching approach. One of the major advantages of using ICTs in the education system has been to prepare the present and next generation of students for a workplace where ICTs particularly computers internet and other related technologies are becoming more and more ubiquitous. These computer savvy and technologically literate students possess the desired competencies to use ICTs effectively.

VII. Role of E-learning in the field of Education:

E-learning (or e-Learning) is the use of electronic media, educational technology and information and communication technologies (ICT) in education. The term "e-learning" is taken from Anglo-Saxon literature. According to Oxford Dictionaries, *e-learning* is defined as a learning conducted via electronic media, typically on the Internet. Successful e-learning depends on the self-motivation of individuals to study effectively. E-learning includes numerous types of media that deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local intranet/extranet and web-based learning.

The worldwide e-learning industry is economically significant. Developments in internet and multimedia technologies are the basic enabler of e-learning, with five identified key sectors of the e-learning industry: consulting, content, technologies, services and support. E-learning is suited to distance learning and flexible learning, but it can also be used in conjunction with face-to-face teaching in the classroom. There are several benefits of e-learning, such as saves time and costs or the possibility of learning 24/7, anywhere. For many students, e-learning is the most convenient way to pursue a degree in higher education.

VIII. Improvement and Quality in Higher Education through ICT and E-learning:

Globalization and technological change are one of the main goals of ICT. One of the main sectors that should be changed and modified is education in general and higher education in particular. All the new information and communication technologies are changing the learning process in higher education. ICT based learning becomes more and more widespread in higher education institutions and therefore quality

assurance processes and quality management systems are of highly importance. E-education can provide access to the best gurus and the best practices or knowledge available.

The higher education sector plays a vital role in the social and economic development in any country from all over the world. The process of education using ICTs can be classified in: e-learning, blended learning and distance learning. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system, audiocassettes and CD ROMs have been used in education for different purposes.

IX. Teleconnections between ICT and E-Learning:

The capacity for ICT has been growing exponentially over the last 10 to 15 years. Computers have become more powerful, satellite, fiber optic cable and wireless technology has increased transmission capacity; and software developments have made it easier to create digital materials such as electronic games, computer simulations and educational materials. Also, there has been a vogue for e-learning in most disciplines of higher education. The ubiquitous presence of Internet, rapid advancement in ICT and recent developments in learning technology have resulted in transition of traditional technology supported distance education from e-learning to mobile learning.

E-learning refers to any type of learning situation when instructional content is delivered electronically via the Internet when and where people need. The concept of e-learning has emerged from distance learning and offers new methods for distance education based on ICTs. E-learning is the modern form of distance education supported and driven by ICT and is characterized by any place and anytime learning. To make use of full potential of this form of learning, it is necessary for both learners as well as instructors to be well aware with the related existing technologies. E-learning is meant for learner communities, which may vary significantly in terms of accessibility, hardware and technical proficiency. Hence, instructors must design the courses keeping in mind the learners' technical limitations so that they may use e-learning tools effectively.

X. Conclusions:

The role of ICTs in the education is recurring and unavoidable. Rapid changes in the technologies are indicating that the role of ICT in future will grow tremendously in the education. ICT has tremendous potential for education. ICT enables a teacher to reach out widely efficiently and effectively. It helps teachers and institutions to be more modern and dynamic. Eventually, the use of ICT will enhance the learning experiences of students. It also helps for building a successful career, in a technology savvy world. Information and communication technologies play a key role for the future development of higher education institutions and represent a catalyst for innovation, quality and excellence in education sector. At national level, the integration of ICT and E-learning for innovation and quality in higher education should become a key priority for all involved institutions.

The use of ICT in education not only improves classroom teaching learning process but also provides the facility of e-learning. The most important benefit of ICT is to bridge the knowledge gap in order to improve the quality of higher education. It provides opportunities to communicate more effectively and to develop literacy skills. There is only the need of wider use and innovative application of the ICT by learners and teachers.

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