ICT IN EDUCATION FOR E – LEARNING APPROACH

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Abstract

Communication and information are at the heart of educational process. Information and communication technology has plays very important role in education i.e. informal and formal education. Information and communication Technologies (ICTs) have been utilized by education since their inception, but they have been massively present in schools only since the early 1980s. Developed countries have applied them to K-12 education for variety of reasons, most of which are still valued today, although in many cases they have remained unfulfilled exceptions.

In education ICT is used as a combination of various technologies ranging from simple technology like print based communication to online communication. Its use encompasses most aspects of educational operations though the major emphasis has been put forth to initiate the use of computers based technologies into the existing technique learning processes not many efforts have been made for providing computer literacy / skills and training teachers. Unless it is ascertained that the teachers and learners have the right attitude and aptitude to use the new technologies, situations are not going to change. At present, though there has been a significant expansion of use of computers and related technologies much is yet to be achieved

Introduction: Since ancient times, we have given more emphasis to educate the people through gurukul system in ancient India, mosques, madarsas established with government aid in medieval India. With the coming of Europeans, a new era in the form of western education had spread its wings all over India. Since then a new dawn emerged with the advent of western education. Education in India has seen different phases of development from Vedic age to post – independence period.

Many commissions has been established like Central Advisory Board of Education, University Education Commission (1948), Mudaliar Commission (1952-53), Kothari Commission (1964) to improve the quality of education in India. In 1986, National Policy of Education proved to be the turning point in education. It provided a uniform system of education all over the country. In

spite of the several recommendations as per NPE- 1986, the education remained to be exam oriented, bookish and information loaded devoid of practical approach. Therefore, we have to develop innovative practices in education. For this purpose first of all we should understand the word "innovation".

Concept and Definitions of Innovation: The word "Innovation" is derived from the Latin word "Innovare" which means to change something into something new. The International Dictionary of Education describes "Innovation" as promotion of new ideas or practices in education and teaching.

The innovation has following components: 1. Subject of Innovation — Innovation relates to something i.e. changes, which may include a product, service, activity, initiative, structure, programme, or policy. In a way, it addresses.the need, which the system feels significant to deal with. 2. New Ideas — Innovation involves the generation of new ideas. This suggests two things. First, the innovation involves using creativity to develop ideas. Second, that the ideas must be "new" insofar as they are either an improvement on something thai is fundamentally new, or the application of existing ideas to a new context.

1. **Application** — Creative ideas do not, in themselves, constitute an innovation. The new idea must be applied to some organizational activity. Thus, innovation involves the practical implementation of new idea; otherwise, one is simply left with an unused invention. This implementation may also involve artfulness, creativity, and skill to secure acceptance.

2. **Significant Change** — The change that is brought about must be "significant and positive; i.e., it must go beyond minor incremental tinkering, yet does not necessarily have to be a revolutionary departure. Significance in this sense means that it must relate to some improvement that is deemed to be important. For example, it must advance society, provide technological or economic progress, or provide an organization with some capability or advantage.

3. **Innovative idea** provides the needs to be feasible in the sense of being replicable in the system as a whole or a significant part of the system.

4. In brief, Innovation is the creative generation and application of new ideas that achieve a significant improvement in product, service, activity, initiative, structure, programme or policy.

Characteristics of Innovations: Innovations are said to possess certain attributes or characteristics. The perceived attributes of innovations are important predictors .of their success.

An innovation requires widespread acceptance by group or social systems as also by the individuals. Only then it will become successful and will be put into practice by organizations. Five characteristics of innovations have been identified are worth mentioning. These are: a) Relative advantage, b) Compatibility c) Less complexity d) Triability and e) Observability. Innovations which are easily divisible into small parts, effectively communicable, compatible, not very complex and advantageous can relatively succeed compared with those which do not posses these characteristics. Hence, to innovate is to create a new path in an original mode.

The NCERT had organized a national seminar on 'Innovations in School and Teacher Education', in 1997. The seminar focused on important characteristics of innovations. An innovation should be: 1. New to the system of environment as perceived by individuals. 2. Better than what is already in existence. 3. A deliberately planned and not haphazard. 4. Contextual to local system or environmental conditions. 5. Capable of making unfamiliar as familiar. 6. Suitable for achieving predetermined goals. 7. Positive in nature. 8. Something which results in the improvement of a system.

Need for Innovation in Education: The very law of nature is 'change'. Education is no exception to this law. Being the most important tool of change, education can bring changes in even facet of the society. Socio-economic and political conditions of the society require changes in education. There was a need to make each and every person literate therefore various innovations were conducted from time to time.In view of this, many innovative programmes, like District Primary Education Programme (DPEP) was launched during 1994. The Sarva Shiksha Abhiyan (SSA) was launched during 1994 and 2000 for Universalisation of Elementary Education (UEE). The recent National Curriculum framework – 2005 focusses on the following issues: 1. Connecting on the knowledge to life outside. 2. Shift from rote learning to constructive knowledge. 3. Providing wide range experiences for overall development of a child. 4. Bringing flexibility in the examinations.

This enables the students to find their voices, nurture their curiosity to do things, to ask questions and to pursue investigations, sharing and integrating their experiences with knowledge rather than their ability to produce textual knowledge. With the help of Information and Communication Technology (ICT), it provides to play an active role to the students necessary for quality learning. The web-based teaching – learning practice is the art, craft and science of using

network technologies. It provides to the students a wide range of scopes for integrating varied learning experiences and making learning a holistic one.

The development in technology has changed the world outside the classroom; it is more attractive and interesting for a student than the usual classroom setting. As a result students feel classroom teaching dull and far from real life and create interest among them for learning. The information technology has made learner WWW afflicted:

WWW continually provide students with enrichment outside of class.

WWW provide follow up on weekly activity schedules.

WWW maintain instructions for groups and individuals.

WWW encourage students to make more efficient and intense use of computers.

The most important aspect of learning are developing capacity for abstract thinking, reflection and students learn in variety of experience like reading, experimenting, listening, thinking, reflecting, writing, expressing oneself in speech, etc. Active involvement involves exploration, enquiry, questioning, discussion, reflection leading to creation of ideas. Therefore emphasis should be given developing critical thinking among students making them active learners.

Steps to incorporate www in the teaching – learning process: 1. Step one would be the collection of multimedia websites. Generally referred as book marked sites that are most useful, interesting and peculiar for a different kind of learners. 2. Step second would be the collection of online newsletters, desktop slide presentations, and hyper providing links to a variety of subject – related multi-media resources. Third step to target specific – learning behaviors using online multimedia resources by posing questions that motivate students and generates curiosity for learning. 3. Fourth step the subject samplers where teacher presents six to eight captivating web sites organized around a main topic because they are asked to respond to web-based activities. Networked technologies add new dimensions in organizing learning experiences. 4. Revealing the quality resources. 5. Networking at various levels among students among faculty beyond the university

Thus, web-based teaching-learning practice generally called as webagogy is the art, craft and science of using networked technologies. According to Boettcher (1997). Now that the World Wide Web is providing a whole new concept for teaching and learning, we have the need to find out the core principles of teaching and learning, and create a new technique of teaching and

learning. Technology along with pedagogical can create an effective learning environment for students which will be helpful for the overall development of the student's personality.

Suggestions to improve quality with e-learning: E-learning can improve the quality as well as quantity in teaching learning process follows:

1. E-learning can be thought oriented, it is thought provoking.

2. E-learning can provide practical knowledge to the students.

3. Web based learning would be interesting an enable the students to take interest into the teaching subject.

4. E-learning enhances creativity among students.

5. It is helpful in enhancing the critical thinking in the classroom.

6. It develops the reflective thinking among students along with memory and understanding level.

7. E-learning helps in identification of problem, problem finding is an excellent group activity when two or more group work independently and then compare strategies.

8. In web-based learning, the personal dimension can be decided by teacher by way of discussion forums managed and facilitated by the teacher. Of course the web also provides students to organize their own networks for support and motivations.

Conclusions : E-learning makes the teaching – learning process easier and broader. Webagogy along with pedagogy provides theoretical as well as practical approach to the learning environment around the students. It develops creativity, reflective thinking, interest for studies among students. E-learning is well-versed when it is said that it is based on project method and problem solving method. This approach is beneficial for the expansion of knowledge horizon of the learner. A student can know view of every concept. It should be the duty of our government to provide e-learning facility to urban as well as rural areas so that the jewels of India who are at grass root level cam show their creativity to the world and cross all the limits to be educated so that the sky will be the limit for these pearls.

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