



The Role of Educational Technology in Teacher Education

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Abstract:

Educational technology is the efficient organization of any learning system adapting or adopting methods, process and products to accomplish the educational goals. This involves systematic identification of the goals of education, recognition of the diversity of learner's needs, the contexts in which learning will take place and the range of provisions needed for each of these. The challenge is to design appropriate systems that will provide for and enable appropriate teaching-learning systems that could realize the identified goals. Educational technology acts as an agent of change in the classroom, which includes not only the teacher and the teaching- learning process but also attends the issues related to reach, equity and quality in Teacher education programme.

Key words: Teacher, Education, Technology.

Definitions:

Some important definitions are as follows:

Derek Rowntree (1973) says educational technology is as wide as education itself. It is concerned with the design and evaluation of curricula and learning experiences and the problems of implementing and propagating them. Essentially it is a rational problem solving approach to education, a way of thinking scientifically and systematically about learning and teaching.

Educational technology according to Gillett (1973) is a systematic way of designing, applying, and evaluating process of teaching and learning.

ICT Essentials:

ICT essentials is created to develop

1. Digital literacy.
2. ICT and Competencies.
3. Knowledge, growth and sharing.

This includes:-

a. Information Technology

The Skill and knowledge base associated with the information technology serves as the fundamental or core by computing Technology.

b. Communication Technology

It encompasses the fundamental or core skills and knowledge base for essential computer applications and information processing.

c. Media Technology

It acknowledges the continuous evaluation of how reading, writing and sharing of information is viewed and applied.

The importance of educational technology is to promote the efficiency in teacher educators by improving the quality of teaching, of educational administration and of educational research. So, educational technology is important for the following reasons:

1. **For effective instruction:** Research in instructional media reveals that motivated students can learn great deal from any of the media. ET can improve the effectiveness of instruction.
2. **For facilitating individual difference:** ET facilitates individual students to learn according to their requirement and pace of learning. Individual students interact with instructional materials and pursue their learning tasks by themselves at their own rate of learning and are presented with opportunities to obtain information about their progress. Thus ET individualizes instruction.
3. **For providing equal educational opportunities:** ET is needed for educational opportunities. For instance educational radio and television programs being broadcasted all over the country to all and unlimited number of students without discrimination. Programmed instructions can be studied by any student even in remote or underdeveloped, area.
4. **For preservation of knowledge:** Modern electronic gadgets provide tremendous capabilities to preserve knowledge and information for future use including print media. Bulk of information can be preserved

electromechanically in the form of audio-video programs, computer software, video discs etc. Even this is a part of ET.

5. **For transmission of knowledge:** Use of modern methods in education helps in reaching and teaching students in any part of the globe. Almost the entire country can be covered simultaneously through radio or television networking system. Communication satellites have added to the effectiveness and efficacy of communication at a distance and made it possible to link more than one location and more than one group of students through two ways talk back system.
6. **For imparting quality education:** Because of advance planning and involvement of experts available in the area of study, mediated-teaching imparts quality education to unlimited students. Whereas mediated education enables the use of the best teacher available in the area to all.
7. **For educational planning:** Educational technology helps in overall School planning and is concerned with the qualitative and quantitative design of a community's entire education system. A systematic approach to teaching-learning includes specification of objectives, designing and structuring content, determining evaluation techniques, etc.
8. **For improving learning:** It is needed to facilitate human learning through systematic identification, development, organization and utilization of a full range of learning resources and through management of these resources.
9. **For pre-service and in-service teacher education:** Educational technology is needed to make teacher training more effective via various new approaches, via micro-teaching, simulated teaching, models of teaching and analysis for improving classroom interaction, producing effective teachers and helping teachers to become better teachers.
10. **Basic Knowledge:** Educational technology has provided a scientific base to educational theory and practice.
11. **Action Research:** It has helped the teachers to use scientific and systematic approaches to conduct action research in the classroom situation to overcome the classroom problems related to classroom environment, content, curriculum etc. It helps in teachers' professional growth
12. **Dynamic:** It helps the teacher to modernize and mechanize the teaching learning process.
13. **For Assistance:** Educational technology supplements teachers in their instructional programs through the structured lessons for remedial, enrichment or drill purposes. The learners get training of self-instruction and teachers are relieved of the burden of routine repetition for exercise and revision purposes.
14. **For Preparation:** Through analyzing the content and organizing it in a systematic, logical and psychological order in their lesson plans for teachers, especially prospective teachers, visit the classroom with confidence and put up a high-profile performance due to their total control on content and process.
15. **For Modification:** It adds to the teaching competence, modifies their teaching behavior and style, inculcates a scientific outlook, approach and attitude and helps them in transferring to the learners.

Conclusion:

In addition to the above mentioned, we can say that the main approach of educational technology in the educative process is that it helps to develop a training module using multi-channel learning which includes self-learning, action learning, face to face interactive learning and learning through interactive television. The entire multichannel learning is the core of educational technology. The Educational Technology has extended from primary to universities and has even reached open universities

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