TEACHER EDUCATION AND EDUCATIONAL TECHNOLOGY

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Abstract

The present paper focuses on meaning of educational technology, Definition of educational technology, objectives of educational technology, scope of educational technology, functions of educational technology, importance and need of educational technology, teacher and educational technology, identification of the successful teacher, teacher education future prospects.

INTRODUCTION:

Modern world belongs to science and technology, therefore every day life of each individual is full of its impact. Education is a great socio-human activity, therefore, that impact of science and technology on education is known as educational technology. The word technology refers to any practical art using scientific knowledge. In Education, if man and machines are properly organised in a system so as to attain desired educational objectives, it would constitute educational technology.

MEANING OF EDUCATIONAL TECHNOLOGY:

Thus educational technology is the behavioural technology which present the art of teaching in a new method and controls educational influences with the help of those factors which are used for achieving teaching objectives.

In order to achieve these objectives following steps are to be followed:
1. Teaching Objectives,
2. Contents,
3. Teaching Material,
4. Educational Environment,
5. Behaviour of the pupils,
6. Behaviour of the teacher,
7. Interaction between teacher and pupil.

DEFINITION OF EDUCATIONAL TECHNOLOGY:
Robert A. Cox: “Educational Technology is the application of scientific process to man’s learning conditions.”

John P. Dececco: “Educational Technology is the form of detailed application of psychology of learning to practical teaching problems.”

OBJECTIVES OF EDUCATIONAL TECHNOLOGY:
1. To modernise the learning methods and techniques after systematising them so that these may be turned effective according to the needs of the changing era for the unknown future.
2. To make desirable modifications in the behaviours of the teachers and pupils by improving the teaching, learning, and evaluation conditions.
3. To make the classroom teaching easy, clear, interesting, effective understandable, objective and scientific.
4. To help in increasing various facilities by solving the most complicated problems of human life so that the human life may carry on its progress continuously.
SCOPE OF EDUCATIONAL TECHNOLOGY:
As the term Education includes teaching, learning instruction and training, the scope of educational technology may be described as follows:
1] Curriculum Construction: In the present technological and psychological age, the application of scientific and technological knowledge is much essential for the curriculum construction, which has become a very tedious job in the field of education. It can be simplified with the help of educational technology.
2] Selection of Teaching – Learning strategies: It turns easy with the help of educational technology.
3] Selection of Audio – Visual Material: The teacher can select easily the audio – visual aids with its assistance.
4] Determination of Educational objectives: The software aspect of educational technology contributes in the formulation of teaching objectives.
5] Areas of Teachers Training: The new innovations in educational technology such as micro-teaching, simulated teaching, system approach, class-room interaction and teaching models etc. can be successfully used in teachers training.
6] Area of feedback: Educational technology has emphasized on feedback for evaluation. Many experiments have been carried out in this area.
7] Area of the Hardware: One form of educational technology is Hardware Devices such as teaching machines, tape recorder, television, computer, and satellite etc. The learning in the class room can be made effective by their use.

FUNCTIONS OF EDUCATIONAL TECHNOLOGY:
1] To convert behavioural objectives into the learning condition in the context of educational objectives.
2] To analyse the characteristics of the learners.
3] To organise the contents.
4] To formulate or construct the media of presenting the contents.
5] To evaluate the performance of the pupils with reference to the achievement of educational objectives.
6] To provide reinforcement and feedback in order to modify the behaviors of the pupils.

IMPORTANCE AND NEED OF EDUCATIONAL TECHNOLOGY:
1] Increasing the Effectiveness of Teaching: Learning Process: It brings desired improvement in teaching-learning process by making it effective. It develops to the maximum the cognitive, affective and psychomotor aspects of the pupils.
2] Maximising the Output: It has maximised the learning facilities because it uses the principles indoctrinated by psychology, sociology, Mathematics, Engineering and other social and scientific subjects. Their input maximises their output in the form of their competency by this technology.
3] Optimum use of Resources: As the developing countries lack experts, machinery or tools, school building, stationery and time, educational technology emphasizes the maximum use of available resources in the learning situations, which may benefit all the pupils of the nation. The teaching technology has developed the techniques like radio and television which have appreciably assisted in the expansion of mass education.

TEACHER AND EDUCATIONAL TECHNOLOGY:
Of all the modern inventions, the one which has made a great impact on education is the programmed instruction and the teaching machine. Good programmed instruction (of the linear type) has the following characteristics:
1] Small Sequential Steps: Each item of the program is so stated that on the basis of what has preceded, nearly all the students can respond to approximately 90 per cent of them correctly.
Learner’s Response: The learner responds in an easy way, i.e., by recognizing the correct answer in a multiple-choice item or write in a word “the constructed response to indicate his recall.

Self-pacing: The learner can proceed at his own rate.

Feedback: The learner is informed at once whether or not his response is correct. This provides the needed motivation.

Re-inforcement: Closely related to knowledge to results is the reinforcement of the students' response. If the response is correct, it is immediately re-inforced.

Product Evaluation: The teaching machine also usually provides a record of student’s errors. If he makes too many errors, the programme is too difficult for him. So he should be given a simple programme.

The advantages of programmed learning are as follows:
1. Learning is more rapid.
2. Learning is enjoyable.
3. Learning is adapted to individual differences.
4. Learning is directed towards specific objective.
5. Learning is retained better.

Identification of the Successful Teacher:
A person who is considered a good teacher by her students is not necessarily judged in the same way by her principal, supervisor, colleagues, the parents of her principal, supervisor, colleagues, the parents of her students or the students themselves years after they have left her class. Even with in a particular class during a given school year, her pupils are likely to disagree among themselves about the quality of her instruction or the value of her efforts in their behalf. The majority of teachers undoubtedly play some of these roles better than others, and a given teacher is not always evaluated in terms of same role by different people.

Among the most frequently mentioned criteria were:
1. Mastery of subject-matter,
2. Motivation,
3. Dedication,
4. Cooperation,
5. Sense of humour
6. Creativity,
7. Disciplinary ability
8. Academic standards,
9. Promptness with reports
10. Efficient methodology,
11. Generosity with personal time in assisting students.

TEACHER EDUCATION: FUTURE PROSPECTS –
The themes that recur in the articulation of deep concerns of thinking men and women today are future and education. The teacher training institutions have given a reasonably good account of themselves, if we recognize their will-known limits and the many constraints under which they have to function. Their responses to the new challenges also have not been conspicuously creative. As suggested earlier, we could expect them to concentrate on collective learning that does not lose sight of the individual learner, emphasize meaningful organization of group projects and joint skill learning endeavours, evince understanding and sympathy for the first and second generation learners, emphasize the unity of all knowledge, and demonstrate a capacity to adapt and integrate the new technological instructional aids.

New frontiers of education – adult education, mass education, correspondence education, continuing education, life long education – demand a new pedagogy and instructional technology. Improvisations, based largely on the old school prototype, don’t appear to work satisfactorily. These emerging fields pose an additional challenge to our imagination and creativity for each of them requires a different type of teacher.
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