

A Brief Study about the Objectives and Importance of Educational Technology in View of The Specific Classroom Teaching at Micro-Level and Macro-Level

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Abstract :

Educational Technology is a behavioural scientific approach to the teaching learning situation. It uses the scientific technological method and the concept developed in psychology, sociology, communication and linguistic and other related field. Educational Technology does not imply the use of machine or other hardware items although sometimes these are use on need basis. Educational Technology widely means the “development, application and evaluation of system, techniques andaid in the field of learning.”

Key words:- Educational Technology, scientific approach, hardware items, techniques, teaching aid.

Introduction :

According to J.K. Galbraith there are two main characteristics of ever technology . These two characteristics he mentioned in his book “ The New Industrial State” as (1) Systematic application of scientific knowledge to the practical task and (2) The division of the practical tasks into sections and sub-sections. He views that any subject in the field of education which fulfils these two norms of characteristics, is called educational technology.

Educational technology does not determine the educational objectives. It helps to achieve the determined teaching objectives. In the first step it creates condition by explaining the input during the teaching process.

Secondly, it selects or designs the best plan to teach the children so that they can achieve the teaching objectives. In the third stage, by evaluating the output of the learner it is observed whether the teaching objectives have been achieved by the learner or not. If the teaching objectives cannot be achieved by the learner then there arise the need of changing the teaching strategy or strategies in the manner through which teaching objectives may be achieved. Thus the process of educational technology may be divide into three different stages:

- (i) In the first place its function is to analyse all the components which are to be applied as input in the teaching learning processes,
- (ii) In the second place the components which are used in the teaching learning process during input and output are searched and analysed in group or individually,
- (iii) In the third place the learning experiences acquired in the teaching –learning process should be in the form of research outcomes.

From above discussion it may be said that educational technology is a behavioural technology which presents the art of teaching in a new fashion. It controls the educational influence with the help of (1)Teaching objectives, (2) Contents, (3) Teaching materials, (4) Educational Environment, (5) Behaviour of the pupils, (6) Behaviour of Teacher, (7) Interaction between teacher and pupils.

Objectives Of The Study :

- To study about the objectives of Educational Technology.
- To study about the importance of Educational Technology.

Methodology :

The present study is based on secondary data. The secondary data are collected from various books, journals and from relevant website.

Meaning And Definitions Of Educational Technology :

Educational Technology is a behavioural scientific approach to the teaching learning situation. It uses the scientific technological method and the concept developed in psychology, sociology, communication and linguistic and other related field. Educational Technology does not imply the use of machine or other hardware items although sometimes these are use on need basis. Educational Technology widely means the “development, application and evaluation of system, techniques and aid in the field of learning.”

John P. Dececoo defines educational technology as “Educational Technology is the form of detailed application of psychology of learning to the practical teaching problems.”

According to Robert A.Cox “Educational Technology is the application of scientific process to men’s learning conditions.”

Takashi Sakamoto defines educational technology as “Educational Technology is an applied or practical study which aims at maximising education effect by ‘Controlling’ such relevant facts as educational purposes, educational environment, conduct of student, behavior of instructors and interrelations between students and instructors.”

Objectives Of Educational Technology :

□ The objective of educational technology is to systematise the learning methods and techniques in the modernise way. It’s purpose is to bring more effectiveness in the teaching –learning process to meet the requirements according to the need of the changing era.

□ The second objectives of educational technology is to bring desirable modification of changes in the behavior of teacher and pupils by modifying the teaching, learning and evaluation system according to the need of situation.

□ The third objective of educational technology is to provide valuable help in the teaching-learning process so that best possible result can be achieved in an economic way. It tries to make classroom teaching easy.

□ The fourth objective of educational technology is to helps human beings in their continuous progress by providing various facilities for solving the most complicated problems of their life. The objective of

Educational Technology in view of the specific classroom Teaching or objective at Micro-Level :

□ To recognize the characteristics of the pupils and to analyse the educational needs accordingly.

□ To decide after observation the specific classroom objectives and state them in behavioural term.

□ To analyse the content to be taught and arrange them in order of sequence.

□ To find out the teaching –learning material and resources which are easily available.

□ To point out the nature of interaction among the students, teachers, teaching material, content of instruction and the teaching method.

□ To plan the series of manoeuvres to be taught to the student and to use the available material resources for achieving the definite classroom objectives.

□ To evaluate the effectiveness of the classroom teaching by testing the pupil’s performance or by observing the changes in behavioural pattern.

□ To give proper feedback to the pupil as well as to the teachers.

Objective of Educational Technology in view the Broad Educational Goal or objective at the Macro-Level :

□ To identify educational needs and intellectual aspiration of the community.

□ To find out definitely the aim of education and broad strategies and structure of education for obtaining these particular goals.

- To develop a suitable curriculum with interaction of science, art and human values.
- To develop some teaching-learning models to improve the process of educating the child.
- To select and to develop the appropriate aids and equipments to meet the desired goals or purpose.
- To identify major objectives and to find out ways and means to overcome them.
- To provide educational opportunities to the masses especially to the neglected sectors of community.
- To manage the whole educational system i.e., the planning, implementation and the evaluation phase.

Need Of Educational Technology :

Educational technology has great importance in a thickly populated and recently developing country like India where mass education is in great demand with limited resources. Educational technology is a major requisite for formal , informal as well as for non-formal mode of teaching-learning in India. Below we discuss some of the areas where educational technology is contributing a lot as a mass instructional media.

- Radio as a media of education technology broadcasts educational programme throughout the country. Educational programme includes local needs, adult education etc.
- Next useful contribution of educational technology in the field of education is television . This media of education telecasts different lessons and educational programmes related to formal and non-formal education in the country. Various types of scientific innovations, discoveries, stranges of wildlife and various fields of knowledge are generally bringing forward to the masses through television. Satellite service and various activities of different planets and the advantages of satellite services all are now within easy reach for the Indian masses although they are in remote, rural and developing areas.
- Thirdly educational technology is concerned with the high demand of training and retraining the school and college teachers both economically and effectively. Educational

technology serves the purpose of in-service teacher training course through mass-media. The multi-media package developed by the Centre for Educational Technology of NCERT remove the barriers of in-service teacher training problem and led it to progress. It helps the teacher to recognise the courses and to prepare himself/herself for effective teaching through learning of some new practice, new things and methods in the process of teaching. The technology use in the training programme of the teacher are generally micro teaching, simulated teaching, team teaching, teaching models etc. along with some necessary innovative concepts.

- The distance education method of our country mostly follows the technique of educational technology. It uses the collaboration of media for instructional purpose. It provides the facilities at any time and at any place and for all persons.

- Systematically developed and well planned correspondence courses provided by a number of Universities in our country are the products of educational technology. Some of the courses of intermediate of higher secondary level can also be imparted through correspondence course. The media use for this purpose are instructional material, student response sheets, personal contact programmes and radio or telecast instructions. Another important step of educational technology is the idea of establishment of open school where instructions are imparted effectively through especially prepared lessons, study, centres, local counsellors and tutors and through some holiday courses.

- Audio –Visual aids are considered effective media for teaching and learning. These are the products of educational technology and are getting much importance in India now. As these are mechanical devices they need preparation, development and skillful utilization. The sophisticated machinery devices requires careful handling. There is a department of teaching aids in NCERT who is producing material and testing the effectiveness of these materials by conducting survey research and evaluation. This department also provides guidance and service to

the educational institutions regarding the use and appliances of these teaching aids.

□ Educational Technology renders immense help in the teaching and learning of languages. Present audio-cassette, audio CD etc. help in improving pronunciation and removal of errors in voice. Devices like linguaphone, DVD are giving training for spoken languages. Thus educational technology contributes a lot to the functioning of language laboratories to teach Indian and any other foreign languages like English, French, German, Russian etc.

In our country educational technology is enjoying much more importance in the field of both formal and non-formal education by providing guidance, planning and by implementing and evaluating the various programmes of teaching and learning.

Importance Of Educational Technology :

Educational technology is inevitable all over in the world. All the countries of the world are maintaining their own system of education. Importance of educational technology in the field of education may be described as follow:

□ **Increasing the effectiveness on teaching-learning process:** Educational technology is becoming more effective by bringing desirable improvement in the teaching-learning process. It can develop the cognitive (the power of perception), the effective (the power of feeling) and the psychomotor (willing to do) domain of the pupil to the maximum.

□ **Maximising the output :** Generally there are different principles to be followed in different subjects while teaching. But educational technology makes use of all these principles used in psychology, sociology, mathematics, engineering and other social and scientific subjects in the teaching-learning process. It makes the system more competent which results in maximum output at minimum input.

Optimum use of Resources :

Educational technology makes maximum use of resources which are available in the learning situation in any country. It makes the available environmental resources beneficial to all the pupils of the nation. Generally the developing

countries possess very limited resources. There is always dearth of expert, up to date machinery or modern tools, properly accommodative school building, luxurious stationary and required time facilities. Television and Radio

have been developed and used as teaching technology for the expansion of mass media.

In the early sixties educational technology enters the minds of Indian people through programmed learning movement and it contributes mostly in the teaching-learning areas.

Advantages Of Educational Technology:

□ **It possess great potential for teaching-learning process:** It makes curriculum construction and selection of teaching-learning strategies easy and also makes teaching-learning more effective.

□ **Improvement in the quality of teaching :** Educational Technology helps in improving quality of teaching by providing varied types of programmes through TV and other media.

□ **Educational Technology motivates children for learning :** It arouses motivation among the learner to learn by using various new machines such as videos, computer, tape recorder, TV and other different types projected aids.

□ **Eliminating the problem of Mass Education :** Educational technology is almost eliminating the obstacles of mass instruction. Different types of programmes developed by different experts for a large population of students can be easily communicated.

□ **Educational opportunities accessible for all:** It breaks the barriers of all classes of learners, irrespective of economic, social or geographical status and makes education available for all. For example, through mass media, TV Radio, Film etc., it makes education easily available for all . It also serves as a distance mode of learning.

□ **Provides continuous and life-long education:** By arranging TV lesson, sending self instructional programmed material to the learners or to the in-service personnel and vocational workers, educational technology helps to keep themselves aware of the innovative thinking of the ever changing society

□ **Provides equal opportunities for all types of children:** Educational Technology makes

provision for self – instructional materials, which provides opportunities to both the gifted and backward children to proceed at his/ her own rate of speed in the learning process.

Conclusion:

Educational technology is a dynamic, progressive and important mechanism in the field of education. It modifies and analyses the various steps of teaching and learning with inspiring principles and laws of modern psychology, sociology, engineering, administration theory, mathematics and other social and physical science. It develops educational efficiency by formulating new process of education according to the need of the learner of by remodelling the whole system of education considering the necessity of the learner. Besides, classroom educational technology plays

an important role in the entire school environment, educational administration and educational references.

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