

# **Educational Technology: Meaning, Nature & Scope**

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# Meaning of Technology

- Comes from two **Greek** words –**Technic & Logia**
- **Technic** means **Art or Skill**
- **Logia** means **Science or Study**
- Derivative meaning - **Scientific study of an art or skill**
  
- Definition-**According to Page**, “**Technology is the application of scientific knowledge to a practical purpose or problem.**”
  
- Simple meaning- **Technology is the scientific way of developing new techniques, and evolving & applying these techniques.**

# Educational Technology (ET)

- Combination of **education and technology**
- Two meanings-
- ✓ **Use of technological innovations** in education
- ✓ Helping teaching and learning by **making education technology based**
  
- It is a branch of study which uses **engineering science, information technology, natural science, behavioural science and human technology** to increase effectiveness of the process of education.

# Definitions of ET

- “ET is the **application of the laws as well as recent discoveries** of science and technology **to the process of education**”(S. S.Kulkarni)
- “ET is the **development, application and evaluation** of systems, techniques and aids **to improve the process of human learning**”  
( National Council of ET, UK)
- “ET is the systematic **application of scientific knowledge about teaching – learning and conditions of learning** to improve the efficiency of teaching and learning”(G.O.M.Leith)

# ET as a system of 5M's

- **M1: Machine** (e.g. tap recorder, radio, computer etc.)
- **M2: Material** (e.g. programme text, manual, print materials etc.)
- **M3: Media** (e.g. Audio-visual aids)
- **M4: Method** (e.g. programmed instruction, team teaching, individualized teaching, micro teaching etc.)
- **M5: Man** (e.g. teacher, taught etc.)

ET brings effectiveness in teaching-learning process through an inter-connection among these 5Ms.

# Nature of ET

- ET is the **systematic application of scientific knowledge** to the teaching and learning process.
- The basis of ET is **science**.
- It lays stress on the **development of methods and techniques** for effective teaching and learning.
- It emphasizes on the **organization of learning conditions/situations** for effective realization of the goals of education.
- It involves **input, process and output** aspects of education.

# Nature of ET

- It facilitates learning by **control of environment, media and methods.**
- It emphasizes on the **designing realistic measuring instruments** for testing learning outcomes.
- It is not only limited to hardware and software approach. It also includes **system approach.**
- It includes **Instructional technology, Teaching technology, Behavioural technology** etc.

# Nature of ET

- It includes **Technology in education** and **Technology of education**.
- It makes use of research findings of **psychology, sociology, cybernetics, engineering sciences** etc. to fulfill the needs of individual as well as society.
- It is a **science of techniques**. It lays stress on effective methods of teaching for realization of educational goals.
- It is a **continuous, dynamic and progressive** science.



# Scope of ET

- Analysis of the Teaching-Learning process.
- Determination of educational goals.
- Development of curriculum.
- Development of Teaching-Learning material.
- Teacher-Training.
- Development and selection of Teaching-Learning strategies.
- Development and use of appropriate audio-visual aids.

# Scope of ET

- Effective utilization of hardware approach.
- Application of system approach to education.
- Feedback and control through evaluation.
- ❖ Others-
  - Open education & Distance education
  - Information technology
  - Communication process
  - Task analysis etc.



Thank you