Technology in Education

System Approach – Concept and Need

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Unit 1

Introductory Concept

- **1.1 Concept of Technology**
- **1.2 Need and Scope of Educational Technology**
- **1.3 System Approach – Concept and Need**
- **1.4 Classification and components of System Approach**

Topic of Discussion

- **1.3 System Approach – Concept and Need**

Learning Outcomes

After going through this unit , you should be able to discuss

- **the concept of System Approach and**
- **the need of System Approach**

System Approach

The system approach is the study of inter-related variables forming one system, a unit, a whole which is composed of many facts, a set of elements standing in interaction. This approach assumes that the system consists of discernible, regular and internally consistent patterns, each interacting with another and giving, on the whole, the picture of a self-regulating order. It is thus the study of a set of interactions occurring within, and yet analytically distinct from, the larger system.

- Jalaluddin

  A system may be defined as a dynamic, complex, integrated whole consisting of self-regulating pattern of interrelated and interdependent elements organized to achieve the predetermined and specified objectives.

- Betty Kirkpatrick

  System refers to structure, organization and arrangement of a particular dimension.

- Banghart

  System is defined as an integrated assembly of interacting elements, designed to carry out cooperatively a predetermined function.

- R L Coif

  A system is the set often interrelated and interdependent elements.

- Crawford Rob

  System is a systematic organization of the elements that operates in a unique way.

- Robert Davis

  A system is an original combination of people , material, facilities, equipment and procedures which interact to achieve the goal.

- Hickey

  A system is an assemblage of objects united by some form of regular interaction or interdependence, which collectively contribute towards an important and complex functions."
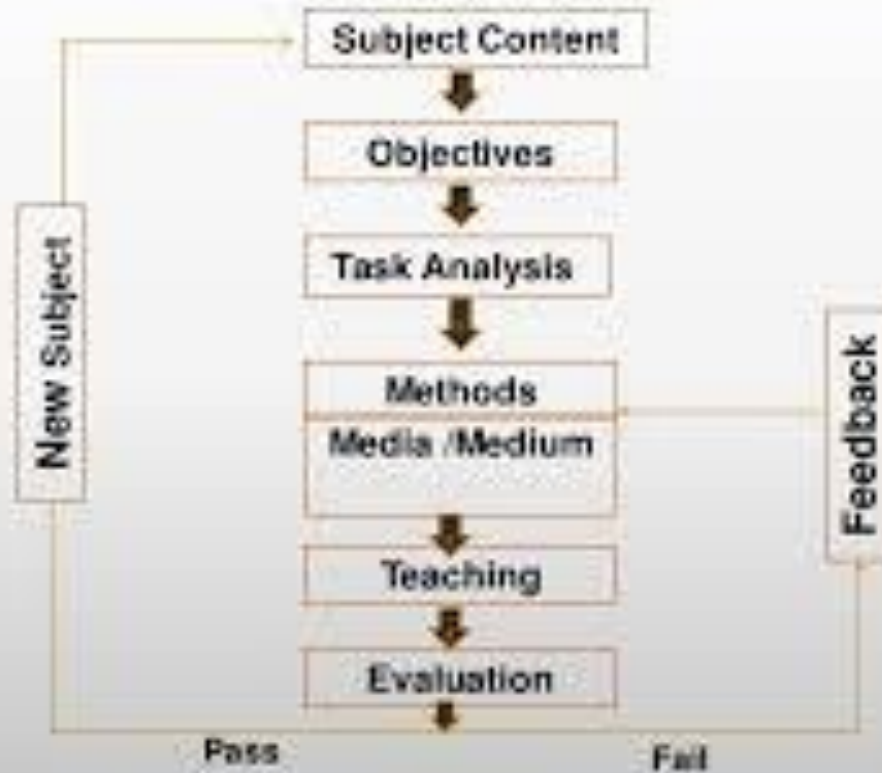
Steps of System Approach
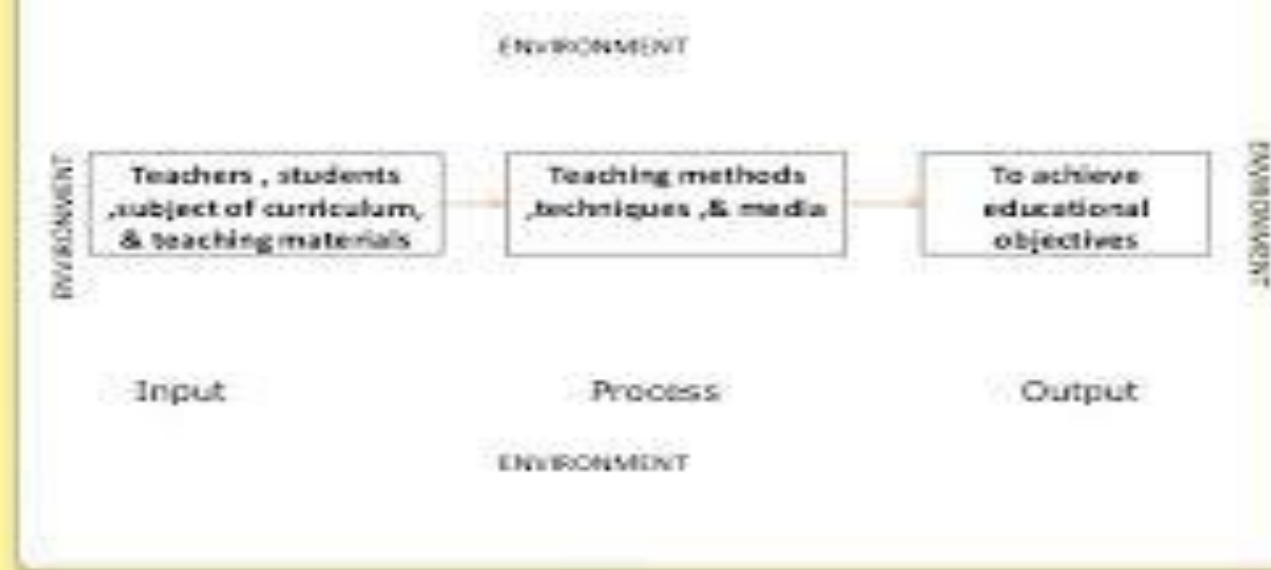
System Approach consists of the following steps

a. Define the system

b. Analyze the operation

c. Define the problem and its environment

d. Analyze problem and generate specific objectives.

e. Synthesis alternate solution.

f.   Select solution strategy from alternatives by evaluating the alternative according to defined criteria.

g.   Implement solution strategy.

h.   Evaluate the performance system

i.   Feedback data for modification

j.   Modify the system if it doesn't adequately solve the problem

STEPS IN THE SYSTEM APPROACH WITH REFERENCE TO EDUCATIONAL PROCESS

System approach in teaching

ENVIRONMENT

Teachers , students ,subject of curriculum, & teaching materials	Teaching methods ,techniques ,& media	To achieve educational objectives

Input | Process | Output

ENVIRONMENT

Need of System Approach

- It helps for structuring and selection of media.
- It provides conceptual framework on which to build plans for implementing change in any system.
- It helps to identify the suitability or otherwise of resource material to achieve the specific goal.
- It helps to asses the resource needs, their sources and facilities in relation to quantities, time and other factors.
- Technological advance could be used to provide integration of machines, media and people for attaining the defined goal.

- It permits an orderly introduction of components demonstrated to be required for system success in terms of outcomes.

- Rigidity in plan of action is avoided.

- It helps for designing and developing of resource centres.

Application of System Approach in Education

- Effective planning of educational institution's programmes
- Increased control and co-ordination
- Maximum utilization of educational institution's personnel
- More effective methods for appraising performance.
- Better training and development plan
- Control of quality

Conclusion

System approach can be used in education for the study of theories, to design remedial instruction, plan curriculum, for designing communication channels, to develop instructional system materials, for developing a training course for school administrators, for planning and administrating programmes for non-formal Education and for preparation of audio-visual aids.

Activities

- 1. Discuss the stages of system approach.
- 2. Write the needs of system approach.