PROGRAMMED INSTRUCTION

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Programmed learning: Meaning and Concept

- Programmed Instruction is also known as programmed Learning as learning is focused in it.

- It is an approach which provides opportunity to the learner to study & learn individually

- Learning opportunity is provided through a frame or series of frame having (a)Learning Material (b) In Built mechanism of evaluation and © related answer of the evaluation part to provide feedback.

- Self Instructional Material started its journey from the programmed Instruction stage.

Programmed learning: Meaning and Concept-01

- Programmed Instruction is a method of individualised instruction where each individual learns by himself at his own rate-R.C. Das

- Programme is a sequence of small steps of Instructional material (called frames), most of which requires a response to be made by completing a blank space in a sentence. To ensure that expected response are given, a system of cueing is applied, and each response is verified by the provision of immediate knowledge of results. Such a sequence is intended to be worked at the learners own pace as individualized self instruction- **Leith**

Programmed learning: Meaning and Concept-02

- Programmed learning refers to the arrangement of instructional material in progressive sequence- **H.W.Bernard**

- Programmed learning as popularly understood as a method of giving individualized instruction, in which the student is active and proceeds at his own pace and is provided with immediate knowledge of results. The teachers is not physically present. The programmer, while developing programmed materials has to follow the laws of behaviour and validate his strategy in terms of student learning- **Gulati & Gulati.**

Characteristics of programmed Instruction

- It is an individualised instruction.
- Materials are devloped keeping in view logical sequence.
- Immediate feedback is being provided.
- There is inbuild mechanism of interaction between the learning material and learners.
- Emphasis is on initial and terminal behaviour and their differences.
- Learners learn the material with their own pace
- Overt responses of the learners are expected to be observed, measured and controlled.
- Continuous evaluation is integral part of the learning material.

Development of Programmed Instruction

- Gita is the first example of programmed learning as it has several ingredients of programming.

- Socrates was one of the earliest programmers who developed a programme in geometry, which was recorded by plato in the dialogue Menu.

- Programmed instruction has its origin in the psychology of learning.

- Thorndike's Trial and Error learning theory through its law of effect has a close link with the concept of reinforcement which is being considered for Programme Instruction.

- Sydney Pressey, inventor of a teaching machine, is also linked with the origin of Programmed Instruction.

Development of programme Instruction-01

- The operant conditioning learning theory of B.F. Skinner given birth to the concept of reinforcement in the process of learning and this learning theory through its concept reinforcement is being considered as the originator of Programmed Instruction.

- Norman A. Crowder developed another type of programmed instruction known as Branching. Skinner talked of linear programming.

- Gilbert developed a new system of Progammed Instruction known as Mathetics.

- Robert Mager and other developed a system of programmed instruction technically known as "learner controlled instruction".

Development of programme Instruction-02

- Lawrence Stolurow revolutionised the concept of programmed instruction in 1965 by bringing the idea of Computer Assisted Instruction (CAI).

- Establishment of first open university in 1969 in UK, establishment of many other open university including Indira Gandhi National Open University (1985) and the employment of "Consortium" gave new and modern shape to programmed Instruction with a new name Self Instructional Material (SIM)

Principles of Programmed Instruction

- Principle of Small Steps
- Principle of Active Responding
- Principle of Immediate Feedback
- Principle of Self –Pacing
- Principle of Student Testing

Development of Programmed Learning Material

- Preparatory Phase
- Development or Writing Phase
- Evaluative Phase/Try-out and Revision

Preparatory Phase

- Selection of a Unit or Topic
- Preparation of Content Outline
- Defining Objectives in Behavioural Terms
- Construction of a Test of Entering Behaviour
- Construction of Test of Terminal Behaviour (Criterion Test)

Writing Phase

- Present the material in Frames
- Provide for Active Student Response
- Constructing test after each Frame.
- Provide for Confirmation or Correction of Student Response
- Use of Prompts to Guide Student Responses
- Provide Careful Sequencing of Frames
- Preparing answer key

Evaluative Phase

- To evaluate to improve through Pre-Tryout and tryout.

- To Revise

- To employ criterion Referenced Evaluation to evaluate the impact of the learning material.