



Programmed Learning

Introduction

- One day B.F. Skinner attended the opening day of his daughter's school, he found that most of the instructions given by the teachers were ineffective. So he decided to solve such problem in the field of education.
- B.F. Skinner published a paper entitled 'Science of Learning and art of Teaching' . This paper leads the way for the programmed instruction. He claimed that desirable behaviour can be brought out by continuous feed back.

Thereafter, Sidney L. Pressey designed a teaching machine for teaching purpose



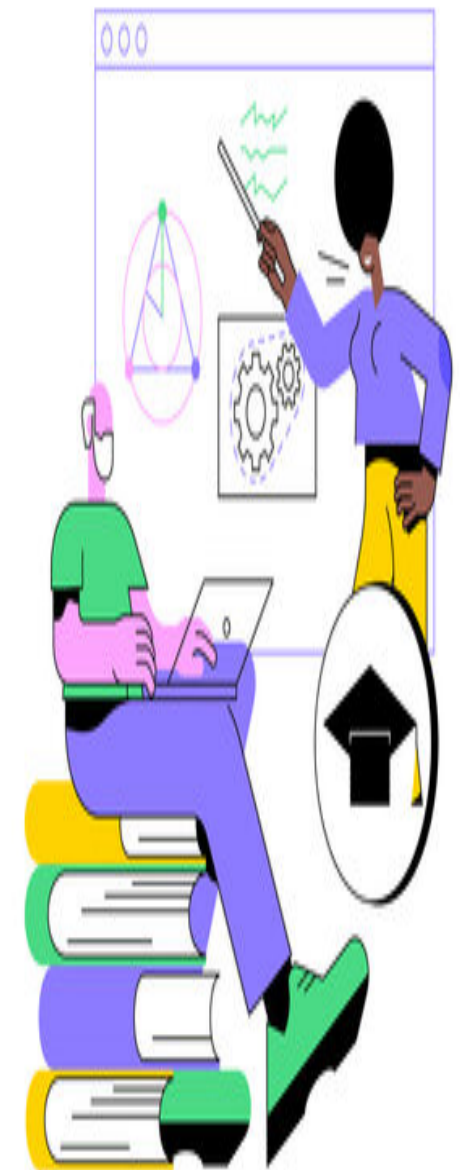
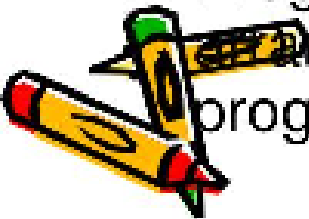
Origin of programmed learning:

- Programmed learning is the outcome of B.F. Skinner's experimental studies on animals.
- It was a great boon to the pedagogies who were thinking of methods to individualist instruction.



Meaning of Programmed Learning

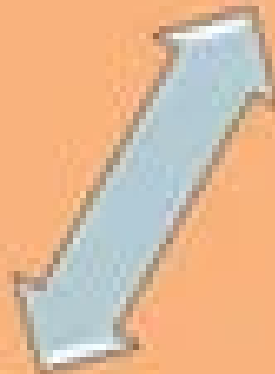
- Programmed instruction is the process of arranging the material to be learned into a series of sequential steps that is from known to unknown. ----- Smith and Moore
- Programmed learning is a method of designing a reproducible sequence of instructional events to produce a measurable and consistent effect on behaviour of each and every acceptable students. ----- Susan Markle
- Programmed learning refers to the arrangement of instructional material in progressive sequences. ----- Harold



Definitions

- It is a Systematic Step By Step Self Instructional Programmes.
- It is a device which presents an exercise or a problem to a student , inducing him to respond , and revealing to him whether or not his response is correct.
- It is a method of designing a reproducible sequence of instructional events to produce a measurable and consistent effect on the behaviour of each and every acceptable student.
- Educational programming is the scheduling and control of student behaviour in the learning process.
- It is a planned sequence of experiences, leading to proficiency in terms of stimulus response relationship.

Types Of Programming



Linear Programming



Branching Programming

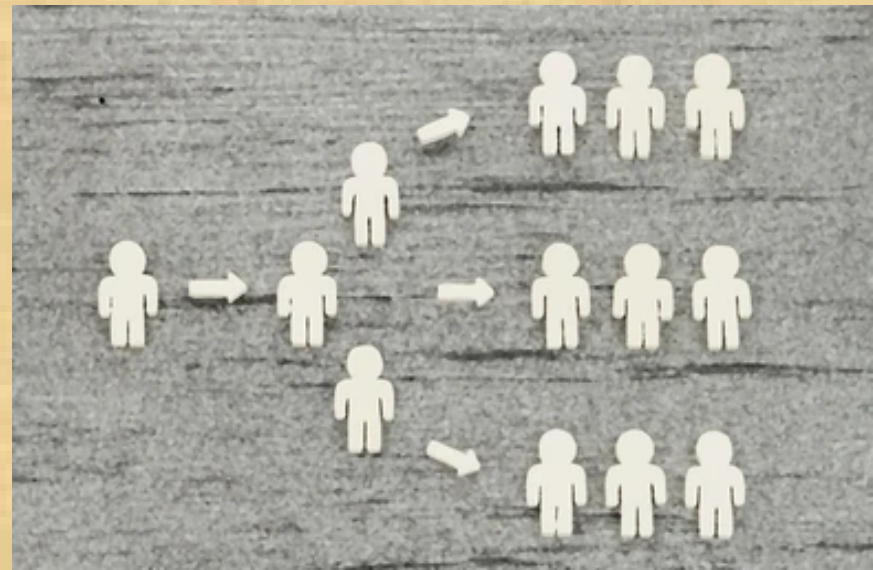
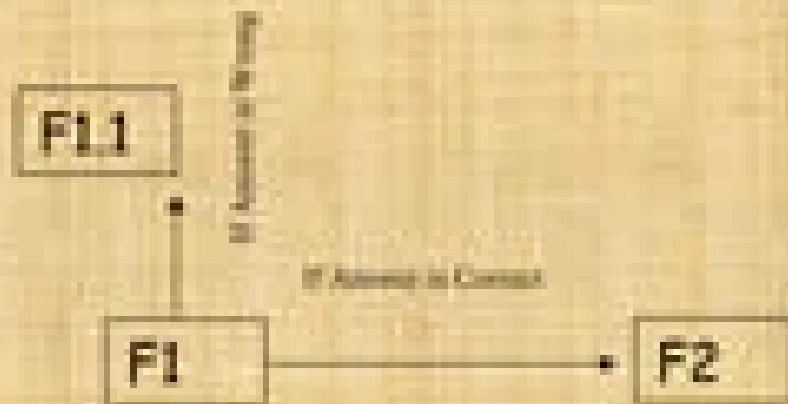


Linear Programming

- In linear frame small amount of information is presented first
- After providing the information there is always a question
- The learner proceeds through a straight line until the whole information is learned by learner
- This is developed by B.F. Skinner

Branching Programming

- This was developed by Norman, A. Crowder (1960) and it was called as intrinsic programmed.
- In this method the subject should select the answer for the question(Objective Type).
- If subject's answer is correct he will lead to the next frame.
- If subject's answer is wrong he will lead to the remedial frame.
- After the remedial frame he will directed to the main frame.



Linear Programming

Branching Programming

- 1 B.F. Skinner gives in 1954
- 2 It is based on operant conditioning learning theory. It is a responses-centered approach of learning.
- 3 It is originated from psychological lab experiment of pigeons
- 4 The size of frame is small.
- 5 The frame structure has three aspects-stimulus, response and reinforcement.
- 6 It has four types of frame introductory, teaching, practice and testing frames
- 7 This strategy is based on the theory of reinforcement

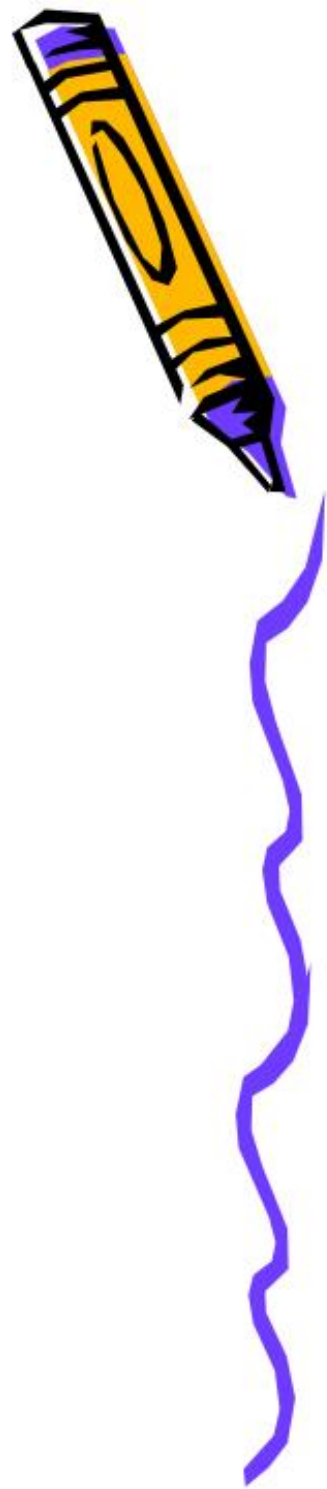
- 1 Norman A. Crowder developed this programme in 1954
- 2 It is based on configuration theory of learning. It is stimulus centred approach of learning.
- 3 It is originated from semi-industrial situation with emphasis on efficient instruction to improve job performance or it has originated from 'Human Training Techniques'
- 4 The size of frame is large
- 5 The frame structure has three aspects as Exposition, diagnosis and remediation
- 6 It has two type of frames:- Home Page, Wrong Page.
- 7 The correct responses is confirmed and approved to provide the reinforcement

Principles of Programmed Learning

- Principle of Small Steps
- Principle of Active Response
- Principle of Immediate Reinforcement
- Principle of self -Pacing
- Principle of Self Evaluation

Characteristics of Programmed Learning

- Positive Characteristics
 - Individualized Instruction
 - Logical Sequence of material (Small Steps)
 - Interaction between the learner and the programme
 - Immediate Knowledge of results
 - Organized nature of Knowledge
 - Learners Own Speed (Self Pacing)
 - Constant Evaluation



Limitations of programmed learning

- ❖ Time consuming
- ❖ Lack of motivation
- ❖ The contact between teacher&student gets eliminated
- ❖ No freedom of choice

OBJECTIVES OF PROGRAMMED INSTRUCTION

- To help the student in learning by doing.**
- To provide the learners situation so that they can learn at their own pace.**
- To help students learn in the absence of a teacher.**
- To present the content in a controlled manner and in logically related steps.**
- To help students in assessing their own performance themselves by comparing it with the given answers.**

REFERENCES

- <http://www.pgce.soton.ac.uk/IT/Learning/Constructivism/CAIandConstruct.htm>
- <http://cemca.org.in/ckfinder/userfiles/Rao D %20Prakasa Reddy B Sudhakar 0259.pdf>
- Instructional Design & Learning Theory,
<http://etad.usask.ca/802papers/mergel/brenda.htm>
- Toward Combining Programmed Instruction and Constructivism for Tutorial Design,
<http://www.pgce.soton.ac.uk/IT/Learning/Constructivism/CAIandConstruct.htm>
- Programmed Instruction,
<http://www.slideshare.net/diputr/programmed-learning>

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Thank

you

