WEL COME

PROGRAMMED INSTRUCTION

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DEFINITION

- "A progressively monitored, step-by-step teaching method, employing small units of information or learning material and frequent testing, whereby the student must complete or pass one stage before moving on to the next."

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DEFINITION

- Method of teaching in which the information to be learned is presented in discrete units, with a correct response to each unit required before the learner may advance to the next unit.

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PURPOSE

- To manage human learning under controlled conditions.
- To promote learning at the pace of the learner.
- To present the material in small pieces.
- To provide quicker response

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Principles

- Small steps.
- Active participation and responding
- Reinforcement
- Self –pacing
- Self evaluation
- Immediate feed –back

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Types of program instruction

1 Linear or extrinsic

2 Branching or intrinsic

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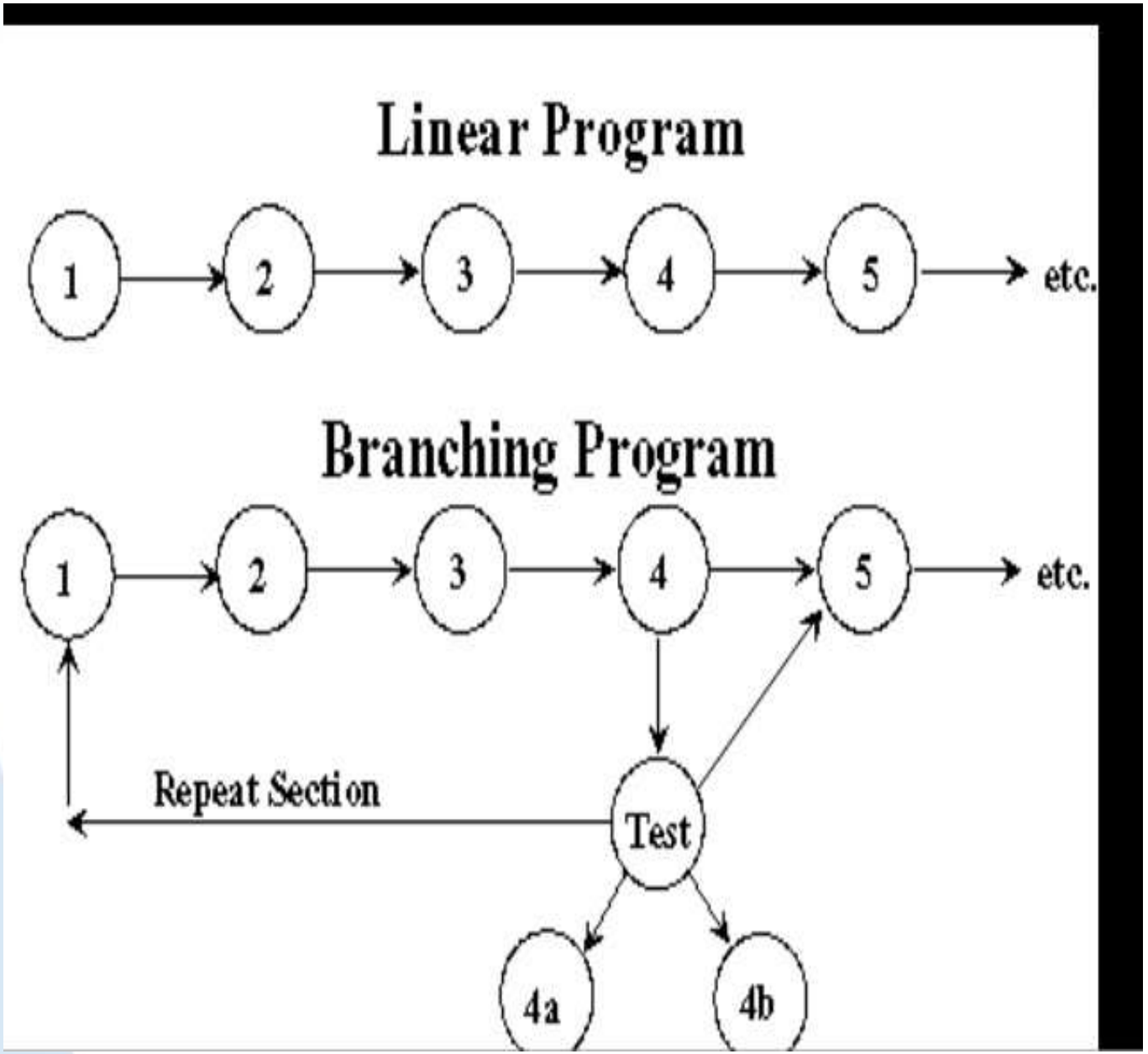

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LINEAR PROGRAME (LP)

B.F Skinner

- Straight line-single track
- Every learner follow the same path
- A linear programme is called "straight line programme".

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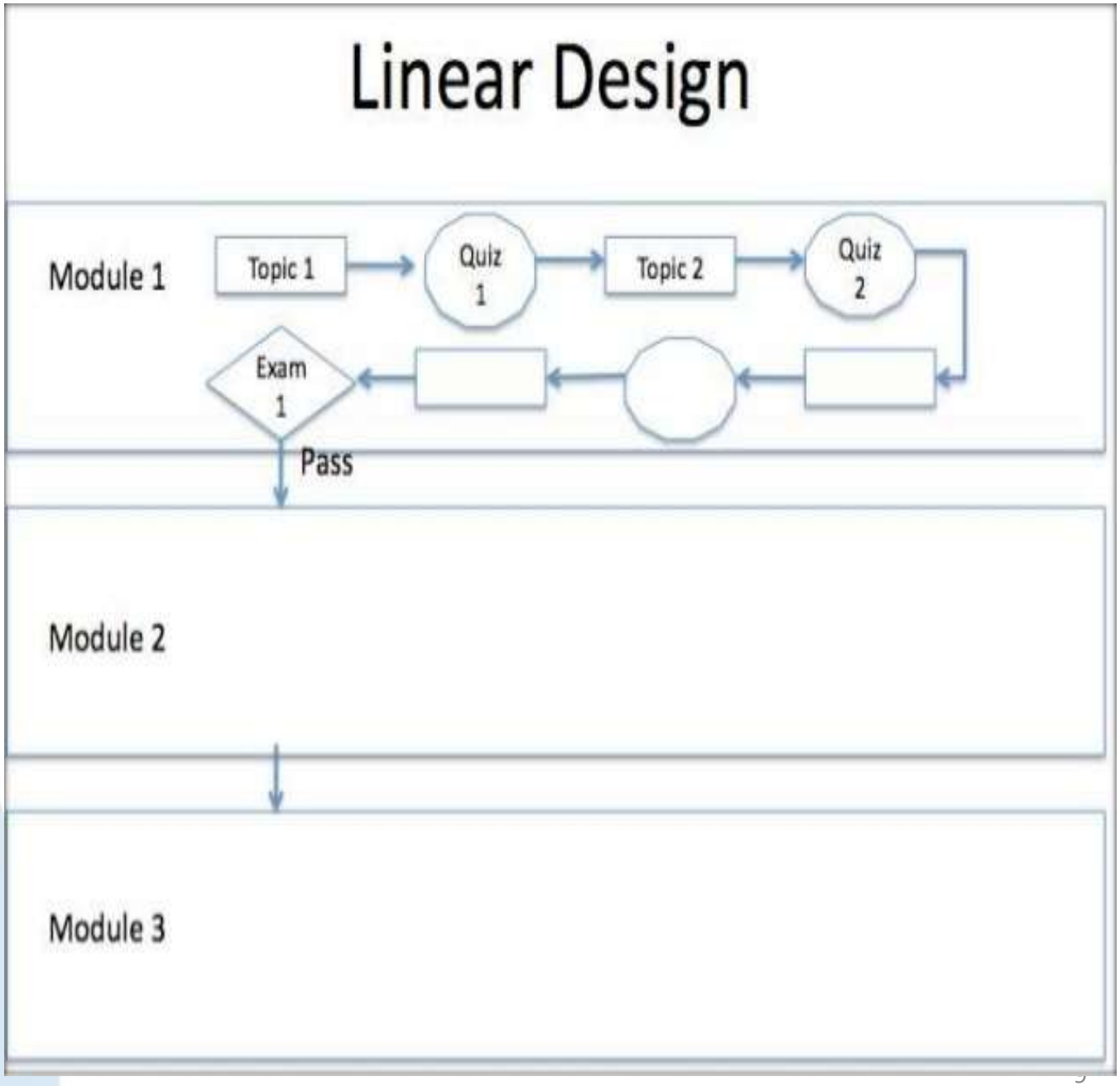
Linear Design



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- The learner starts from initial behavior to the terminal behavior following a straight line.
- The student proceeds from one frame to the next until he completes the program.

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CHARACTERISTICS OF LINEAR PROGRAM

- LP are exposed to a small amount of information and proceed from one frame or one item of information to the next in an orderly fashion.

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- The learners respond overtly so their correct responses can be rewarded and incorrect responses can be corrected.
- The learners are immediately informed about weather or not their response is correct (feedback).

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- The learners proceed at their own pace (self pacing).

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BRANCHING / INTRINSIC TYPE

- NORMAN COWDER (a contemporary of B.F Skinner) developed this model.

- His model focuses problem solving from COMMUNICATION POINT OF VIEW.

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PRINCIPLES OF BRANCHING PROGRAMME

- PRINCIPLE OF EXPOSITION.
- PRINCIPLE OF DIAGNOSIS.
- PRINCIPLE OF REMEDIATION.

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PRINCIPLE OF EXPOSITION

- The whole concept is presented to the students so that he can learn the complete information better which is provided in the home page.

- It serves two purposes : TEACHING & DIAGNOSIS.

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PRINCIPLE OF DIAGNOSIS

- Here the weakness of the learner is identified after exposition and it is assessed whether the learner could learn what the causes are.
- And then it is modified.

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PRINCIPLE OF REMEDIATION

- If a learner chooses the wrong alternative, the learner has to move to a wrong page where a remedial instruction is provided.

- And the student is directed to return to the home page and he / she is asked to choose the right answer.

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STRUCTURE OF BRANCHING PROGRAMME

- The programmed text is called SCRAMBLED TEXT.
- This consists of two types of pages :

1. HOME PAGE.

2. WRONG PAGE.

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HOME PAGE

- This page consists of content or concept and followed by multiple choice questions which involve four aspects :

1. TEACHING (The learner goes through the instructions to comprehend the concept or information).

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- 2. RESPONSE (At the end of instruction, multiple choice is given to the learner to choose the correct response, which the learner has to discriminate. The response is intrinsic).

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- **3. DIAGNOSIS** (If the learner chooses the wrong response, he has to move to the wrong page. If he chooses the right response, he moves to the next home page, where the next unit is presented.)

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- **4. REINFORCEMENT :** The response is reinforced by confirming it at the begening of the home page, hence the learner is encouraged through verbal approval or praise.

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WRONG PAGE

- Wrong page or remedial frame involves :

1. Repeating student response.

2. Negative confirmation.

3. Reason as to why he is wrong.

Cont....

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Cont....

4. Further explanation in a single language.

5. Direction as to where the learner should go next.

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TECHNIQUE OF BRANCHING PROGRAMME

- There are two tenchniques :

1. BACKWARD BRANCHING.

2. FORWARD BRANCHING.

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BACKWARD BRANCHING

- If the learner makes an error, he has to take to the remedial frame where;

- He is given some more help in understanding the concept and solving the problem.

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- He is then directed to the original frame number one.

- So the learner goes through the same frame twice, once before the remedial material is referred by him.

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FORWARD BRANCHING

- When the learner gives a correct or wrong response, he goes to the next or new page.
- If he makes a wrong choice, he is directed to the remedial frame where his mistakes are fully explained.

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- This is followed by another parallel question from which he goes to the next frame in the main stream.

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EXAMPLE

LINEAR PROGRAMMED INSTRUCTION

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Frame1

Answer of Previous Frame:

In the first century A.D., **Ptolemy**, a *Greek* astronomer said that the Sun and the other planets move round the earth in circular paths.

Question: *According to Ptolemy the earth is at the C..... (fill in the blank using 5 more letters) and the Sun and the planets move round it.*	**Answer:.....** **(to be written by the learner for the current frame)**

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Frame2

Answer of Frame1: **Centre**

Ptolemy's theory was based on observing and believing the apparent motion of the Sun, planets and stars around the earth which seems to be stationary.

Question: *Ptolemy's theory states, the Sun and the Planets are..... and the earth is.....*
(fill up each blank with a word)

Answer:.....
and.....
(to be written by the learner for the current frame)

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Frame3

Answer of Frame2: Moving and Stationary

In the 16th century A.D., **Copernicus** discovered that the earth is not stationary but is moving along with other planets around the Sun.

Question: The discovery of Copernicus was that the earth is.....
(put a word in the blank)

Answer:.....
(to be written by the learner for the current frame)

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Frame4

Answer of Frame3: **Moving**

Ptolemy said that the Sun and the planets go round the earth. But **Copernicus** proved that actually the earth and the other planets go round the Sun.

Question: We can say that the theory of Copernicus.....Ptolemy's theory.
(fill in the blank with a word)

Answer:.....
(to be written by the learner for the current frame)

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Frame5

Answer of Frame4: **Disproved**

Later on another astronomer called **Kepler** derived certain laws related to motion of planets around the Sun.

Question: Kepler's law dealt with planetary.....
(fill in the blank with a word)

Answer:.....
(to be written by the learner for the current frame)

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Frame6

Answer of Frame5: **Motion**

Kepler proved that the planets do not move in circular paths around the Sun but they move in elliptical paths around the Sun.

Question: According to the Kepler the path of any planet around the Sun is.....
(fill in the blank with a word)

Answer:.....
(to be written by the learner for the current frame)

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Frame7

Answer of Frame6: **Elliptical**

.....There follows more information.....

Question: .....A Question is asked.....	**Answer:.....** (to be written by the learner for the current frame)

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BY:-

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