

DISCOVERY LEARNING *BRUNER*

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The Theory

Discovery Learning was introduced by Jerome Bruner,

It is a method of Inquiry-Based Instruction.

It is constructivist learning theory.

Bruner (1961) proposes that learners construct their own knowledge and do this by organizing and categorizing information using a coding system. Bruner believed that the most effective way to develop a coding system is to discover it rather than being told by the teacher.

Learning takes place in problem solving situations where the learner draws on his or her own past experience and existing knowledge to discover facts and relationships and new truths to be learned.

Discovery learning

- This popular theory encourages learners to build on past experiences and knowledge, use their intuition, imagination and creativity, and search for new information to discover facts, correlations and new truths.
- Learning does not equal absorbing what was said or read, but actively seeking for answers and solutions.
- Students interact with the world by exploring and manipulating objects, wrestling with questions and controversies, or performing experiments.

What is learning

- Learning is an active process
- the process in which the learner selects, transforms information for making decision, generate hypothesis and make meaning from the information.
- People selectively perceive certain aspect of their information -then act on the representation i.e. categorize those information .
- In this way discovers their own learning .

The process of learning

- People selectively **perceive** certain aspect of their environment , **represent those perceptions internally** and then act on those representations
- Perceive: to perceive is to categorize , to conceptualize
- Internal Representation : Enactive -0-1 yrs
 - Iconic 1-6yrs
 - Symbolic 6yrs onward

Internal representation

- **Symbolic representation** : when the information is stored in terms of words symbols numbers etc.
- It is highly affected by the interest of the learner , his intellect and his language.
- the language of the learner the medium of learning must be in coherent .
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Symbolic representation continued...

- symbols are flexible hence can be manipulated ordered and classified .
- knowledge is stored primarily as words mathematical symbols etc.

Learning...

- Learning is effective if it is in structured way.
- Structure of knowledge is the relationship among factual elements and technique.
- The knowledge is structured in a way that it could enable the learner to readily grasp the information.
- The learning must follow the progression from enactive to iconic and then symbolic

SPIRAL CURRICULUM

- Bruner's spiral curriculum is an approach to education that involves regularly re-visiting the same educational topics over the course of a student's education
- Each time the content is re-visited, the student gains deeper knowledge of the topic. It has the benefits of reinforcing information over time and using prior knowledge to inform future learning.

- The spiral curriculum is defined as a curriculum that returns to the same topics over time. It is juxtaposed to methods that involve learning something then moving on, perhaps never to engage with it again.



Key principles of spiral curriculum

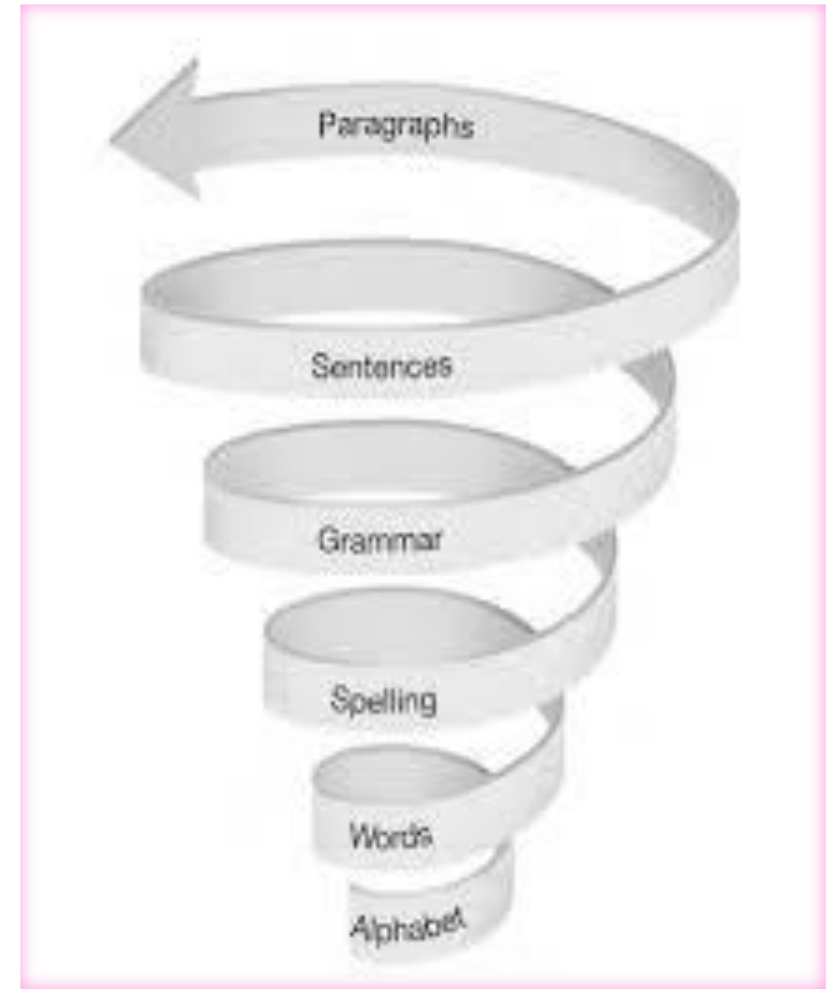
The spiral approach to curriculum has three key principles.

These are:

1. **Cyclical:** Students should return to the same topic several times throughout their school career;
2. **Increasing Depth:** Each time a student returns to the topic it should be learned at a deeper level and explore more complexity;
3. **Prior Knowledge:** A student's prior knowledge should be utilized when a topic is returned to so that they build from their foundations rather than starting anew.

Some examples

- First cover simple fractions, then more complex fractions, and then start getting you to add and subtract fractions.
- Similarly, a student might first learn about nouns before adjectives and verbs before adverbs. This is because knowledge of adjectives requires prior knowledge of nouns and knowledge of adverbs requires prior knowledge of verbs



THANK U

