Quadrant II – Notes

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Notes:

CONCEPT ATTAINMENT MODEL

Dr. Jerome Bruner and his associates are credited with the development of CAM.

Assumption

- The basic assumption underlying this model is that, human beings have the capacity to discriminate and to categorize into group.

Important terminologies

- Concept
  A concept can be considered as a class or category whose members share some features or characteristics or attributes or critical properties that are not shared by another class or category.

Element of a Concept

1. Name

- Each and every concept is related to a particular term called name. For example Living organisms is a name given to birds, trees, mammals etc.
- All these items differ from each other in various aspects, but all three share certain features that relate them to the general terms living organism.

Essential Attributes

- Common features or characteristics which helps similar items under same category.
- Non Essential Attributes
- These are the features or characteristics found in the items or objects of a category that do not help in identifying the concept.

Examples

- There are two types of examples. Positive examples and negative examples.

  Positive Examples: are those examples that contain all essential attributes.
  Negative Examples: are those examples which shows absence of one or more essential attributes.

Rule

- It is the statement that arises at the end of the concept attainment model (CAM).

Components of a Model

- Syntax

It involves the following three phases

Phase one: Presentation of data and identification of concept

- Teacher presents labeled examples
- Students compare attributes in positive and negative examples
- Students generate and test hypothesis.
- Students state definition according to the essential attributes.

Phase two: Testing attainment of concept

- Students identify additional unlabeled examples as yes (+ve) or no (-ve).
- Teacher confirms hypothesis, names, concepts and restates definitions according to essential attributes.

- Students generate examples.

Phase three: Analysis of thinking strategies.

- students describe their thoughts.
- Students discuss role of attributes.

Social System

- Teacher controls the sequence of the lesson, but open dialogue occurs in the later phases.
- Students interaction is encouraged.
- As the students gain experience, they are encouraged to take initiative in the inductive process.
- Teachers role is to choose the concept, select and organize the material into positive and negative examples and sequence the examples.
- She has to supply additional examples as needed.
- She has to gives cues and present supporting data.

Principles of Reaction

- During the lesson teacher needs to be supportive of students hypothesis.
- Help students in initiating a dialogue so that they test their hypothesis against each other.
- Help students to focus attention on specific attributes of the examples.
- Assist students in discussing and evaluating their thinking strategies.

Support system

- Carefully selected and organized materials or data in the form of examples.

Application of CAM

- It can be used with all ages and grade levels.
- It is excellent tool to check mastery of previously taught concepts.
- It helps in revealing the depth of student understanding.

- It is useful in teaching new concept through group inquiry.

Advantages of CAM

- It helps in improving inductive reasoning.
- It helps in understanding many abstract concept.
- It can be used for many age group.
- It helps in long term learning.
- Students master the procedure of attaining concepts.

Limitation of CAM

- It is time consuming.
- Cannot be applied to all the concept.
- Not suitable if the students are slow learners.
- A teacher who is not resourceful may not be able to adopt this strategy.