MODEL, APPROACH AND METHOD OF TEACHING

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INSTRUCTION

orientation

STUDENT
- Development
- Thinking skill
- Activity
- Students’ learning experience

TEACHER
- Role
- Task
- Activity

PROBLEM
- Personal
- Social
- Environment

TECHNOLOGY
- Information system
- Learning source
LEARNING POLE

AUSUBEL & ROBINSON (1968)

INQUIRY

ROTE LEARNING

LECTURING

MEANINGFUL LEARNING
What is the difference between model and approach?

Let us discuss.........
MODEL OF TEACHING

Design that picture the process and environment situation creation which makes student interact each other in order to make change or development in students (related with planning strategy)
CHARACTERISTICS OF GOOD MODEL:

- Have scientific procedure
- Have specific learning outcomes
- Environment of learning is clear
- Criteria of learning outcome is clear
- Process of instruction is clear
CLASSIFICATION OF TEACHING MODEL (Joyce and Weill)

- Social Model
- Information Processing Model
- Personal Model
- Behavioural Model
TYPE OF TEACHING MODEL

- Problem solving
- Learning Cycle
- Inductive Model (Hilda Taba)
- Inquiry Model (Richard Schuman)
- STS (Science Environment Technology Society)
PROBLEM SOLVING

Consists of 5 syntax:
1. Determine the problem (could be taken from problem in society which relevant with students).
2. Applying knowledge, procedure and information from sources
3. Plan the activity (organize data: graffic, chart etc)
4. Group activity: communicate the finding
5. Real activity: social worker, social activity etc.
LEANING CYCLE

Steps of Learning Cycle:
1. students’ prior knowledge
2. Motivate student to pose idea based on his/her prior knowledge.
3. Introduce new specific information to student (definition, concept etc)
4. Plan activity to give student experient (challenging, conflict cognitive, develop idea)
5. Guide student to questioning, discussing, debating and making conclusion as well as developing concept.
KARPUS AND THEIR LEARNING CYCLE MODEL (CARIN, 1997)

**Exploration Phase**
Student interact with other student and source of learning

**Concept Application Phase**
Student apply information into new situation

**Evaluation and Discussion**

**New Concept Introduction Phase**
Object or cause Labeling
INDUCTIVE MODEL (HILDA TABA)

This model aims to improve students’ thinking skill

There are 3 strategy of Inductive Model
1. Concept formation
2. Data Interpretation
3. Principle application
## STRATEGY IN INDUCTIVE MODEL

<table>
<thead>
<tr>
<th>STRATEGY I:</th>
<th>STRATEGY II:</th>
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<tbody>
<tr>
<td>Phase 1: Collecting and ordering</td>
<td>Phase 4: Identifying the dimension and its relationship.</td>
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<tr>
<td>Phase 2: Classifying</td>
<td>Phase 5: Explaining dimension and its relationship</td>
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<td>Phase 3: Labeling, categorizing</td>
<td>Phase 6: Infering</td>
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<th>STRATEGY III:</th>
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<td>Phase 7: Making hypothesis</td>
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<td>Phase 8: Explaining and strengthening hypothesis</td>
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<td>Phase 9: Verifying the prediction</td>
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Phase 1
PROBLEM POSING

Phase 2
DATA GATHERING AND VERIFICATION

Phase 3
DATA COLLECTION (EXPERIMENTATION)

Phase 4
DATA ANALYSIS

Phase 5
CONCLUSION AND PLANNING STRATEGY FOR NEXT INQUIRY
LANGKAH STS

SCIENCE
INITIATED BY COURIOUSITY OF NATURE PHENOMENA

APLICATION OF SCIENTIFIC METHOD

EXPLANATION OF NATURE PHENOMENA

NEW QUESTION

SOCIAL APLICATION, EXPLANATION AND SOLUTION

PERSONAL ACTIVITY BASED ON EXPLANATION AND SOLUTION

TECHNOLOGY
STARTED FROM PROBLEM RELATED TO HUMAN ADAPTATION WITH ENVIRONMENT

APLICATION OF STRATEGY PROBLEM SOLVING

PROBLEM SOLVING RELATED WITH HUMAN ADAPTATION WITH ENVIRONMENT

NEW PROBLEM
APPROACH IN TEACHING

- Concept approach
- Environment approach
- Inquiry approach
- Science Process skill
- Integrated approach
- Cooperative approach
- CTL
APPROACH AND METHOD OF TEACHING

• Approach:
  Emphasize on planning strategy

• Method:
  Emphasize on technic in class
SCIENCE PROCESS SKILL

1. observation
2. Inference
3. Classification
4. Prediction
5. Communication
6. Hypothesis
7. Plan the experiment
8. Concept or principle application
9. Questioning

Notes: 1 – 3 (low level order science process skill)
4 – 9 (high order lever science process skill)
COOPERATIVE LEARNING

- Gender, academic
- Structural task for each group member

TYPES OF COOPERATIVE LEARNING:
- JIGSAW
- NHT
- STAD
- THINK PAIR SHARE
- TALKING CHIP
CONTEXTUAL TEACHING AND LEARNING (CTL)

1. Constructivism
   student centered

2. Inquiry
   Knowledge from inquiring, involving creativity and critical thinking skill.

3. Questioning
   Studying is productive activity, exploring information, producing knowledge and decision.

4. Learning community
   Cooperative and collaborative

5. Modeling
   Multi ways method, try new things and creative

6. Reflection
   Comprehensive learning, self evaluation/internal and external.

7. Authentic Assessment
   Process and product, learning experience, multi aspect test and non test
TEACHING METHOD

- Lecturing
- Discussion
- Questioning
- Experiment
- Role playing
- Demonstration
- Task assignment