

# MODEL, APPROACH AND METHOD OF TEACHING

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# INSTRUCTION

*orientation*

**STUDENT**

**TEACHER**

**PROBLEM**

**TECHNOLOGY**

- Development
- Thinking skill
- activity
- Students' learning experience

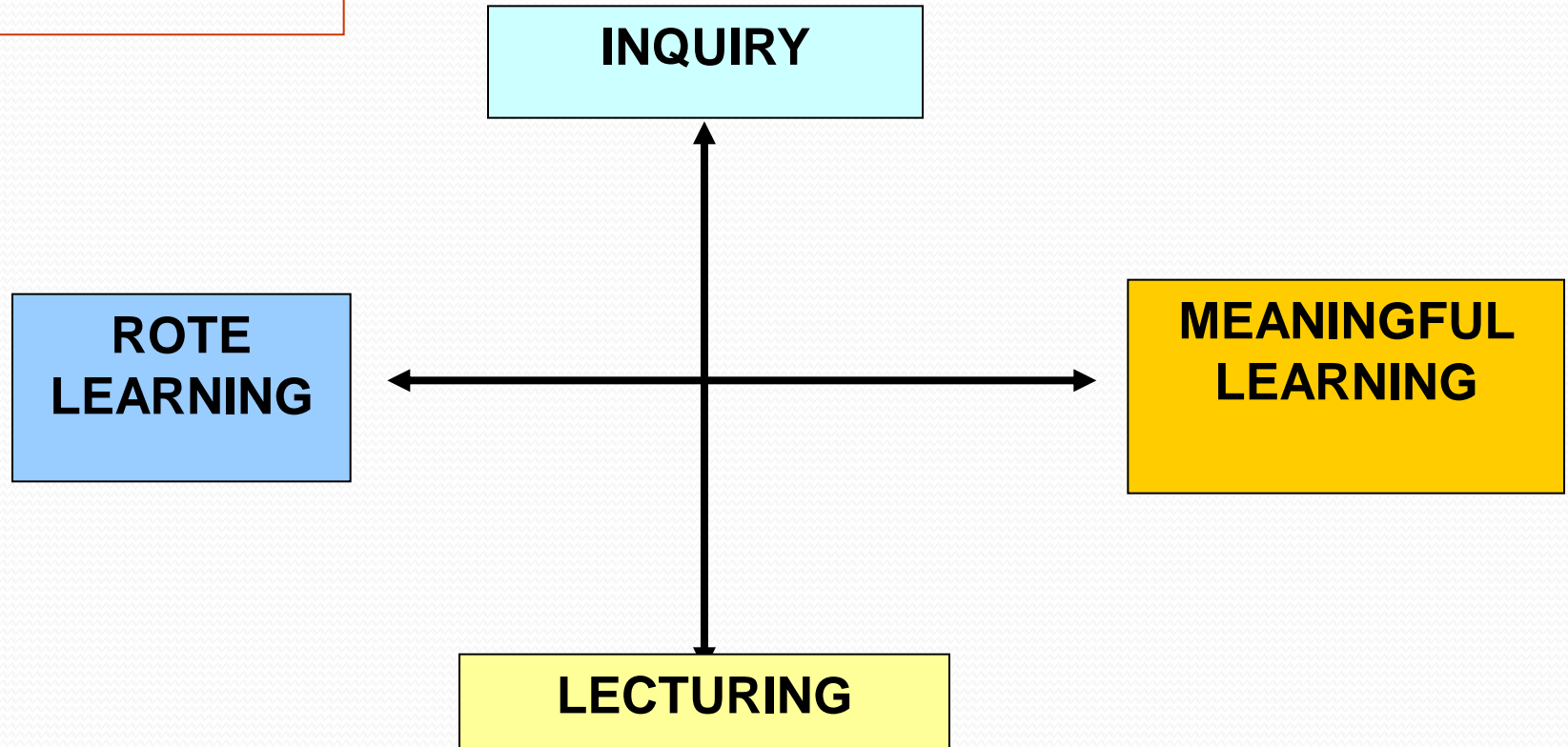
- Role
- Task
- Activity

- Personal
- Social
- Environment

- Information system
- Learning source

# LEARNING POLE

AUSUBEL & ROBINSON  
(1968)



# MODEL AND APPROACH

*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:

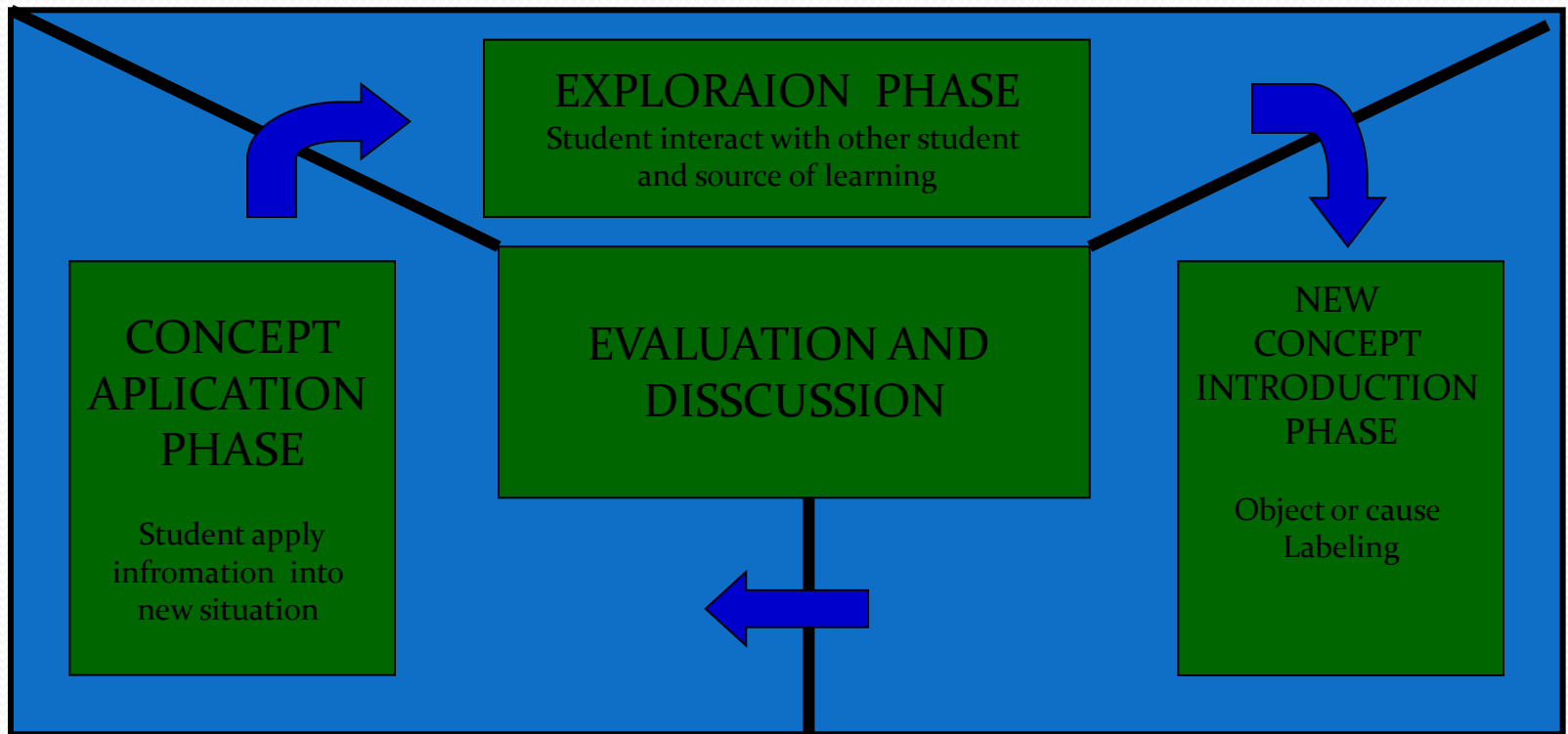
1. Determine the problem (could be taken from problem in society which relevant with students).
2. Applying knowledge, procedure and information from sources
3. Plan the activity (organize data: graphic, chart etc)
4. Group activity: communicate the finding
5. Real activity: social worker, social activity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

# LEARNING 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)



# 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

## STRATEGY I:

Phase 1:

Collecting and ordering

Phase 2:

Classifying

Phase 3:

Labeling, categorizing

## STRATEGY II:

Phase 4:

Identifying the dimension and its relationship.

Phase 5:

Explaining dimension and its relationship

Phase 6:

Infering

## STRATEGY III:

Phase 7:

Making hypothesis

Phase 8:

Explaining and strengthening hypothesis

Phase 9:

Verifying the prediction

# SCIENTIFIC INQUIRY

Phase 1  
PROBLEM POSING

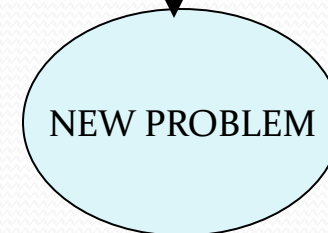
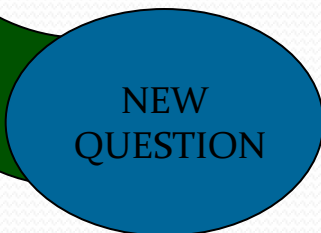
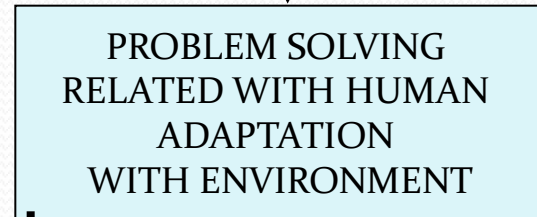
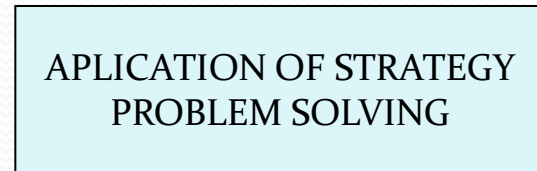
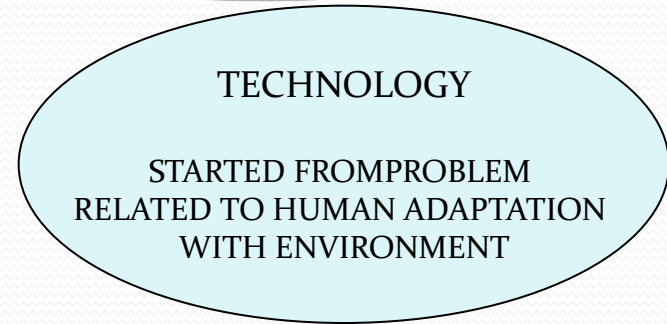
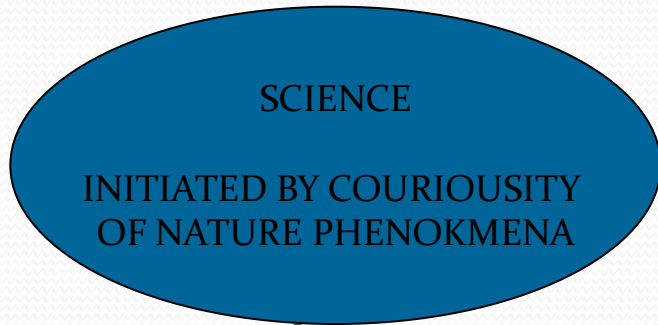
Phase 2  
DATA GATHERING AND  
VERIFICATION

Phase 3  
DATA COLLECTION  
(EXPERIMENTATION)

Phase 4  
DATA ANALYSIS

Phase 5  
CONCLUSION AND  
PLANNING STRATEGY  
FOR NEXT INQUIRY

# LANGKAH STS



# 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