DOD Conference on Civilian Education and Professional Development

Quality Initiatives for the 21st Century: Continuing the dialogue

Assessing Curriculum via Critical Thinking
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8 August 2000
Critical Thinking
A Definition We Use

The Ability to think about one’s thinking in such a way as:

1. to recognize its strengths and weaknesses and, as a result,

2. to recast the thinking in improved form
INTELLECTUAL STANDARDS FOR CRITICAL THINKING

- CLARITY
- ACCURACY
- PRECISION
- DEPTH
- BREADTH
- RELEVANCE
- LOGIC
Elements of Reasoning

- Points of View
  - frame of reference, perspective, orientation

- Purpose of the Thinking
  - goal, objective

- Question at Issue
  - problem

- Information
  - data, facts, observations, experiences

- Interpretation & Inference
  - conclusions, solutions

- Concepts
  - theories, definitions, axioms, laws, principles, models

- Assumptions
  - presupposition, taking for granted

- Implications & Consequences

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Customer Requirement

How do you Know That?

Required Competency

How do you Know That?

Outcomes

How do you Know That?

What is Success?
Assessment - Focus and Point of View

Student: Does He/She “Get it?”

Student Needs to Know: Focus and Point of View

Faculty Needs to Know: Focus and Point of View

College Needs to Know: Focus and Point of View

Boss/Stakeholders Need to Know: Focus and Point of View

Program: Does it Work?
Does the Student “Get it?”

- CATs
- Judgement

Student Needs to Know
- Self-Assessment
- Interview
- Minute Paper
- Quiz
- Journal
- Projects
- Exams

Faculty Needs to Know
- AER
- Portfolio

College Needs to Know
- Projects

Boss/Stakeholders Need to Know
- Products
- Exams
Does the **Program** Work

- **Student Needs to Know**
- **Faculty Needs to Know**
- **College Needs to Know**
- **Boss/Stakeholders Need to Know**

**Existing Records**
- C.O.A.S.T
- Knowledge Management

**Requirement VS Fitness For:**
- Specification
- Use
- Cost
- Latent Requirement
Direct Instruction in thinking in non curricular contexts

Use of methods which promote thinking in curricular contexts

Restructuring content lessons for direct instruction in thinking

INFUSION integrates direct instruction in specific thinking skills into content area lessons. Lessons improve student thinking and enhance content learning.
Direct Instruction in competency in non-curricular contexts

Use of methods which promote competency in curricular contexts

Restructuring content lessons for direct instruction in competency

INFUSION integrates direct instruction in specific competencies into content area lessons. Lessons improve student skills and enhance content learning.
Instruction in writing, grammar, sentence structure

Use of methods which promote competency in curricular contexts

Restructuring content lessons for direct instruction in competency

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Instruction in writing, grammar, sentence structure

Instruction using military terms and situations as the content

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Use authentic situation that would require a written product

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DOMAINS OF THINKING
DISCIPLINES IN EDUCATION

- PSYCHOLOGICAL
- SOCIAL
- BIOLOGICAL
- RELIGIOUS
- ECONOMIC
- EDUCATIONAL
Elements of Reasoning

- Points of View: frame of reference, perspective, orientation
- Purpose of the Thinking: goal, objective
- Implications & Consequences
- Question at Issue: problem
- Assumptions: presupposition, taking for granted
- Information: data, facts, observations, experiences
- Concepts: theories, definitions, axioms, laws, principles, models
- Interpretation & Inference: conclusions, solutions

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Curriculum as a Function of the Developers

- Curriculum development and delivery is either a team sport or a performance art
- Assessment is a performance art
- Not everyone is Rembrandt
Perry/Gardiner’s Model of Intellectual Development

- Cognitive Complexity
- Degree of Abstraction
- Relativism
- Commitment
- Constructed Knowledge
- Multiplicity
- Subjective Knowledge
- Procedural Knowledge
- Dualism
- Received Knowledge
Dualism

- There is a right answer to every question
- All other answers are wrong
- Right Answers are dispensed by authority
- Authority “Knows”

Implication: learners are dependent
Multiplicity

- Legitimate authorities disagree - more than one opinion can be "Right"
- To have an opinion makes it "Right"
- Since no absolute truth exists
- No one is "wrong"

Implication: no one has a right to criticize
Relativism

- All knowledge depends on context
- Responsibility & initiative for knowing and thinking are internalized
- Obedience is rejected - meaning is constructed by oneself

Implications: capacity for empathy, critical thinking now exist
Commitment

- Although the world is complex, I must still make commitments.
- Principles and direction in life must come from within.

Implication: New Behavior - makes commitments to people, careers, principles
Perry/Gardiner’s Model of Intellectual Development

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Techniques for Stimulating Thinking

And the Answer is:

The Question!!
Some Useful Questions

- “What’s Your Point?”
- “How do You Know That?”
- “Why Should I Accept That?”
- “Could You Explain it Another Way?”
- “So What?”
- “AND . . . ?”
- “What if X becomes Y?”
Target Areas

What’s Your Point?

What’s Your Point?

So What?

What if X Becomes Y?

AND ...?

What Mode of Thinking?

Why Should I Accept That?

Why Should I Accept That?

How Do You Know That?

How Do You Know That?

Purpose of the Thinking

Question at Issue

Information

Interpretation & Inference

Concepts

Assumptions

Implications & Consequences

Points of View

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Examine “Revealed Truth”
Examine “Accepted Wisdom” (We all know that . . . )
Question Sources - WHY is that source valid, why did you pick that particular source?
How did you acquire your point of view?
EGOCENTRISM

- Defensiveness
- Irritability
- Arrogance
- Anger
- Apathy
- Indifference
- Alienation
- Resentment
Thank You!!

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