The Art of the Engaged Lecture

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A Key Question

What are the intellectual products you want to result from your …. 
• course?
• assignment?
• activity?
Engaged Lecture: 10/3
(or)
The Intelligent Interruption

• Lecture for no more than 10 minutes.

• Have students process for at least 3 minutes
Engaged Lecture

- Periodically pause after a major point. Have students:
- Make connections (concepts, problems, prior knowledge, personal experience)
- Draw inferences
- Construct examples
- Construct illustrations (analogies, similes, metaphors, charts, diagrams, etc.)
- Develop questions
- Assess understanding
Role Play
(In the spirit of the Rogerian Argument)

• Partners
• Purpose: Address two differing interpretations to an issue or problem.
  • ‘A’ takes a pro side.
  • ‘B’ argues con side.
• Switch when prompted.
  • Usually after 2-3 minutes.
• Develops intellectual depth and empathy.
QRO

Groups of 3

• Questioner
• Responder
• Observer
  • Records and Assesses
• Rotate roles when prompted
  • 3 min to teach, 1 minute for feedback
Is covering material the same thing as building understanding?

B questions

C observes
What is the difference between education, socialization, training and indoctrination?

A questions  B  (focus on clarifying questions)  
C observes
SEEI / SEXI / DOXI
Strategy for Asking Clarifying Questions

State /Define - State the meaning of the idea accurately in your own words

Elaborate - “In other words…”

Exemplify - Construct or recall an actual and precise example

Illustrate - create a metaphor, analogy, simile, chart, diagram, dance, etc.

The voice you hear when you read silently
is not silent, it is a speaking out-
loud voice in your head; it is *spoken*,
a voice is *saying* it
as you read. It's the writer's words,
of course, in a literary sense
his or her "voice" but the sound
of that voice is the sound of *your* voice.
Lux continued

It is your voice saying, for example, the word "barn" that the writer wrote but the "barn" you say is a barn you know or knew. The voice in your head, speaking as you read, never says anything neutrally -
RSQC2

• **Recall** - make a list of key ideas, problems, issues
• **Summarize** - in 1 sentence, summarize key points
• **Question** - what questions remain unanswered?
• **Connect** - key lecture ideas with course as a whole
• **Comment** - “What I found most useful was…”

Formulating Questions

1. Periodically stop class and have students write down questions they have as they think through the content. (2 minutes)
   - Construct:
     - 3 information probing questions
     - 1 or 2 questions probing underlying assumptions, implications, key concepts, conceptual connections, content/problem connections

     If they do not have a questions, write:
     “I am not thinking well enough to have a question.”
Formulating Questions

2. Periodically stop class and have students write down the question at issue (under discussion) and explain the extent to which the reading helps settle the question.
Challenge Inert Knowledge

- Take any statement made in the course content (lecture or text).
- Have students think of the statement as a
  - fact
  - claim
  - hypothesis.
- What questions can we raise when we think of the statements not as absolutes, but as claims or hypotheses?

Original Bloom’s Taxonomy

Bloom's Taxonomy for Thinking

Knowledge

Recall

Using knowledge in new situations

Understanding

Breaking things down
Creative thinking

Putting things together

Synthesis

Analysis

Application

Comprehension

Knowledge

Evaluation

Judgement

Knowledge Retention
Foundation for higher order thinking

Diagram showing the levels of Bloom's Taxonomy from Knowledge to Evaluation.
Bloom’s Re-conceptualized

Create

Remember

Evaluate

Understand

Analyze

Apply

Illustration Based on St. Edward’s University, Center for Teaching Excellence, 2001
Poincare

“Science is built of facts the way a house is built of bricks, but an accumulation of facts is no more science than a pile of bricks is a house!”
LIE to your students & have them catch you in the act!

- Students are expected to **assess** the accuracy of claims/facts.
- Make “fact” and claim **verification** part of the course requirements.
- Students actively **question the claims** an instructor and peer makes.
- Students **come to class with questions** regarding the validity of claims/facts.

What is the instructor’s job?

• An open-ended prompt in which students are asked to describe what they believe to be a college professor’s most important teaching responsibilities.

• Can also challenge students to respond to the question:
  • What is the student’s job?

Minute Paper

- **Principle**: prompts substantive self-reflection on the extent to which students have internalized and engaged the content presented in a class session.

- **Primary Purpose**: to provide brief feedback on what students have learned.

- **Process**: At the end of a lecture, students are asked to write concise responses to two questions.
  - What was the most significant thing you learned during this lesson?
  - What important questions remain unanswered for you?

**Augment with JiTT**

“Dear incoming student…”

• Students are asked to write, anonymously if they wish, a letter to future students of the course which begins with the prompt,

‘If you want to be successful in this class, this is my advice,’

• Students may define ‘success’ in any way they choose. Administered to every class at the end of each term.
General Questions
A short checklist

• Can I explain *this* to someone else so that s/he understands it?
• Is there more to this problem, issue, or situation than I am currently seeing?
• Have I fairly considered other relevant perspectives?
• Can I generate reasonable alternatives?
• What am I most curious about regarding this topic?
• How can I connect this issue to my own experiences?
Targeting Modalities

• Groups of 5
• Move through (as directed) the following different dimensions of thinking about the following topic.

“The questioning mind is the critically engaged mind”
Spatial: create a chart, cartoon, graph, diagram, or other illustrative visual expression.

Linguistic: articulate alternative concepts, construct a poem, think of a metaphor or simile.

Logical: create an analogy or general rule.

Musical: write a jingle or song.

Intrapersonal: write a reflection drawing on your personal experiences, beliefs, or values.
Think - Pair - Share (TPS)

THINK - reflect, problem solve, write

PAIR - partner up

SHARE - take turns sharing thoughts

HOW DO WE MAKE THIS SUBSTANTIVE?
Direct quote from the text and page number.

Adapted from C. Tovani; I Read It But I Don’t Get It

Sample Thinking Options

- This reminds me of...
- I wonder...
- This is important b/c...
- I am confused b/c...
- I will help myself by...
- The picture in my head looks like...
- I infer that...
- I think “this” because...
- If I agree/disagree, then I must also accept...
- What are the implications of...
- How is “this” concept similar to...
- What is this like?
3-2-1

3 Questions
2 words
1 metaphor
Selected Sources


Selected Sources Continued


Selection of CT Definitions

Collected by Enoch Hale
Robert Ennis Definition

“Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do.”
Matthew Lipman Definition

“Critical thinking is skillful, responsible thinking that is conducive to good judgment because it is sensitive to context, relies on criteria, and is self-correcting.”
Richard Paul’s playful definition

“Critical thinking is thinking about your thinking, while you’re thinking, in order to make your thinking better.”
John Dewey

- John Dewey (1916/1997) argues that high quality thinking is “the accurate and deliberate instituting of connections between what is done and its consequences” (177).
Edward Glaser

“The ability to think critically… involves three things: (1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one’s experiences (2) knowledge of the methods of logical inquiry and reasoning, and (3) some skill in applying those methods” (p. 5).
Paul, Elder and Bartell (1997)

Critical thinking is “the intellectually disciplined process of actively and skillfully conceptualizing, applying, synthesizing, and evaluating information gathered from or generated by observation, reflection, reasoning, or communication, as a guide to belief and action” (p. 4).
Carrol Tama (1989)

“However defined, critical thinking refers to a way of reasoning that demands adequate support for one’s beliefs and an unwillingness to be persuaded unless the support is forthcoming” (p. 1).
Foundation for Critical Thinking

Critical thinking is that mode of thinking — about any subject, content, or problem — in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it. Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities, as well as a commitment to overcome our native egocentrism and socio-centrism. (Foundation for Critical Thinking, 1987, A Definition)
Bailin, Case, Coombs & Daniels

Bailin, Case, Coombs, and Daniels (1999) emphasize the role of standards and criteria within their definition, writing that critical thinking as “a normative enterprise which, to a greater or lesser degree, we apply appropriate criteria and standards to what we or others say, do, or write” (p. 285).

“Critical thinking is the propensity and skills to engage in activity and ‘mental activity’ with reflective skepticism focused on deciding what to believe or do, ‘and that can be justified,’” (p. 8).
In conversation with Gerald Nosich

Critical thinking is thinking autonomously and fairly-mindedly about whatever we encounter confident that quality reasoning will lead us to the best way to address the issue or problem.
Howard Gardner

The goal of education and the cultivation of the disciplined mind is to “eradicate erroneous and unproductive ways of thinking and to put in their place the ways of thinking and doing that mark the disciplined professional.”
Q: What is your conception of a critical thinker?

A: [The first facet is] someone who is in the habit of attempting to identify and examine the assumptions that underlie his or her habitual ways of thinking about something, and the assumptions underlying habitual ways of acting in situations – identifying and scrutinizing them as to whether or not they are well-grounded in reality.
The other facet I would look for is someone who is able to quite easily slip into alternative perspectives and inhabit other interpretive frameworks – someone who can see a situation from a number of different angles, put themselves in another person’s head and see through their eyes, and do some role-taking.
Hare argues, “We should be wary of succinct definitions, especially when dealing with a rich and fertile notion… It is tempting, of course, to try and find one comprehensive formula which captures the essence of critical thinking, but the chances of success are slim; critical thinking comes into so many contexts and takes such different forms that it is enormously difficult for any summary account to do justice to the ramifications of the idea” (p. 40).

Succinct definitions are desirable for operational purposes.
Other Thoughts On the Topic

• PROCON.ORG
  • http://www.procon.org/view.resource.php?resourceID=001926

• AUSTRINK.COM
  • http://austhink.com/critical/