How Can I Design Critical Thinking into My Course?

Presented by:
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Outcomes

• Explain what critical thinking (CT) is
• Identify course content it can be applied to
• Write assessable CT learning outcomes for your discipline
• Integrate CT into a new or existing course

CT does not apply

• Lower-level thinking/learning: knowledge, remembering, recognizing, reproducing, simple (non-interpretive) comprehension/understanding
• “Cookbook” or “plug-&-chug” procedures and solutions
CT does apply

When a "claim" may or may not be valid, complete, or the best possible.

"Claim" = belief, value, assumption, interpretation, problem definition, theory, generalization, analysis, viewpoint, opinion, contention, hypothesis, solution, inference, decision, prediction, or conclusion – not a fact or term definition.

Why a claim may be questionable

• Evidence is uncertain, ambiguous, or contradictory
• Problem/task is "fuzzy" and ill-defined.
• Multiple respectful claims exist (issues of disagreement, debate, controversy)
• Source is suspect
• Evaluation process is unclear

Ask yourself

What content in your courses relies on "claims" that may or may not be valid, complete, or the best possible? (Look for areas of uncertainty.)
Frameworks for Critical Thinking

- Brookfield (focus on assumptions)
- Higher-level cognitive operations in Bloom’s Taxonomy
- Perry’s Stages of UG Cognitive Development
- Halpern (cognitive psychology)
- Wolcott & Lynch Steps to More Complex/Critical Thinking
- Paul & Elder, Foundation for Critical Thinking
- Facione and Delphi Report (basis of CCTST)

Critical Thinking

- Requires interpretation and analysis
- Is difficult and unnatural
- Involves character and integrity
- Requires self-regulated learning
- Needs emotional health

Paul & Elder’s “Intellectual Traits” of Character

- Intellectual humility
- Intellectual autonomy
- Intellectual integrity
- Intellectual courage
- Intellectual perseverance
- Confidence in reason
- Intellectual curiosity
- Fair mindedness
Facione and Delphi Group’s Dispositions toward CT

• Wide-ranging inquisitiveness
• Desire to be well-informed
• Desire to use critical thinking
• Trust in reasoned inquiry
• Confidence in one’s reasoning abilities
• Open-mindedness

Facione and Delphi Group’s Dispositions toward CT (cont’)

• Flexibility in considering alternatives
• Understanding of others’ opinions
• Fair-mindedness
• Honesty with self about own biases, prejudices, stereotypes, egocentrism
• Prudence in suspending/altering views
• Willingness to revise views when warranted

Halpern’s Dispositions (Self-Regulated Learning)

• Willingness to work and persist at complex tasks
• Conscious planning and follow-through & suppression of impulsive activity
• Open-mindedness and flexibility
• Willingness to self-correct and replace ineffective with effective strategies
Emotional Health to Counter “Psycho-logical Fallacies” (Nilson 1997)

- Assimilation
- Denial
- Displacement
- Externalization
- Projection
- Rationalization
- Regression
- Repression
- Resistance
- Selective Perception & Recall
- Sublimation
- Suppression
- Transference
- Withdrawal

Critical Thinking Requires

- Background knowledge of subject matter
- Explicit and intentional integration into a course for students to learn it
- Self-regulated learning
  - metacognition
  - meta-emotional awareness and control

Must-have CT learning outcomes

- Outcomes = statements of what students should be able to do by end of the day, week, unit, or course.
- “Performances” you can observe so you can assess and set standards for them – not internal states of mind like “know,” “learn,” “feel,” “understand,” “appreciate” (see supplementary material)
General CT Skills According to Facione

http://www.insightassessment.com/Products/Critical-Thinking-Skills-Tests/California-Critical-Thinking-Skills-Test-CCTST

• Interpretation
• Explanation
• Analysis
• Inference
• Evaluation
• Deduction
• Induction
• Numeracy

General CT skills according to Halpern, D.F.,
Teaching critical thinking skills across the curriculum. Starlink webinar broadcast live 12/1/04

• Verbal reasoning (to identify and defend against persuasive techniques)
• Argument analysis
• Scientific reasoning (hypothesis testing)
• Statistical reasoning (likelihood and probability)
• Decision making and problem solving

Discipline-relevant CT skills and outcomes
(see supplementary material)

• Check those relevant to your course
• Add more if necessary
• Write some CT outcomes
• Start sequencing: In what order will students achieve them?
Thank you!

Tell us what you think:

https://www.surveymonkey.com/s/designCT

Thank you!