

Note-taking Guide

What Activities and Assignments Promote Critical Thinking?

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Outcomes

- Explain what critical thinking (CT) is for teaching purposes
- Identify content suitable for teaching CT
- Write assessable CT learning outcomes relevant to your discipline
- Select and adapt methods and strategies for teaching CT
- Avoid common instructor mistakes



Where does Critical Thinking 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, term definition, or law.



Critical Thinking...

- CT = interpretation/analysis + evaluation.
- CT is difficult & unnatural; it takes time to learn.
- CT is not only cognition but also “character”



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Critical Thinking...

- CT requires background knowledge of subject matter
- CT requires explicit and intentional integration into a course for students to learn it
- CT requires self-regulated learning
 - metacognition
 - meta-emotional awareness and control



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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

(see supplementary material)



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Discipline-relevant CT skills

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

(see supplementary material)



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Help students understand Critical Thinking

Address misconceptions about CT & subject matter early. *Ask your students what they think CT is.*

- Negative?
- Purely critical?
- Anti-establishment?



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Develop a common vocabulary

Teach CT theory and vocabulary

- Operational terms/thinking verbs (see supplementary material)
- Logical fallacies: practice identifying & avoiding
List at: <http://utminers.utep.edu/omwilliamson/ENGL1311/fallacies.htm>



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Have students practice with feedback

Ask CT questions and assign CT tasks that match your outcomes and content = low/no-stakes **practice** with your or peer **feedback**.

(see supplementary material)



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Methods for practice with feedback

- Class discussions
- Debates and structured controversy
- Inquiry-guided activities (make sense of data)
- Journaling & other writing-to-learn exercises
- Worksheets



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Methods for practice with feedback (con't)

- Simulations & role plays with debriefing discussions or papers
- Peer review of drafts of papers, presentations, and projects
- Brookfield's in-class CT exercises
http://www.stephenbrookfield.com/Dr_Stephen_D_Brookfield/Workshop_Materials_files/Developing_Critical_Thinkers.pdf pp. 17-44



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Advance students' Critical Thinking skills

To **advance** students' CT skills

- Give them increasingly complex material to interpret, analyze, and evaluate over time, or



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Advance students' Critical Thinking skills (con't)

Move them through a stages model:

- Perry at http://home.ubalt.edu/ub02Z36/Perry_Stages_ACRL-MD.pdf or <http://www.cse.buffalo.edu/~rapaport/perry.positions.html> or http://perrynetwork.org/?page_id=2%3E
- Wolcott at <http://www.wolcottlynch.com/>
- Paul & Elder at <http://www.criticalthinking.org/pages/critical-thinking-development-a-stage-theory/483>



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Have students observe and articulate their reasoning

- After every CT question/task, ask *"How did you arrive at your response?"*
- Assign reflective writing to identify beliefs and misconceptions that may interfere with clear reasoning, such as *"What part of the learning experience challenged what you thought? Did you find yourself resisting it? If so, how did you overcome your resistance?"*



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Mistakes to avoid

- Low-level questions/tasks
- Claims without ambiguous evidence, uncertainty, or controversy
- Insufficient wait time for responses
- No feedback
- No reflection or self-regulation




