



UNIVERSITY OF
MARYLAND



teaching & learning
transformation center

Enhancing student critical thinking with scalable and flexible hybrid instructional support

Bill Kules, Teaching & Learning Transformation Center

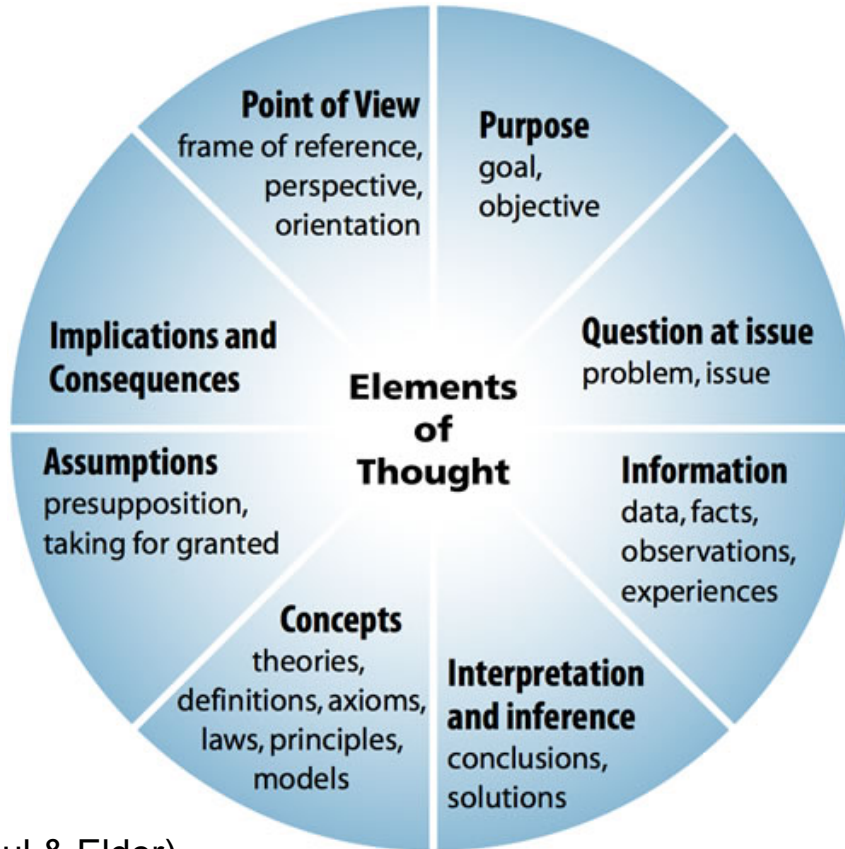
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create. innovate. educate.



Elements of Reason & Intellectual Standards



(Paul & Elder)

Clarity

Accuracy

Precision

Relevance

Depth

Breadth

Logic

Fairness

Goals and Motivations

- ❖ Embed higher-level “hallmark” skills throughout the curriculum
- ❖ Improve consistency and quality of critical thinking (CT) as modeled in courses and demonstrated by students
- ❖ Explore complementary approach to Elevate Fellows



Approach

- ❖ Developed teaching resources in ELMS
- ❖ Launched faculty learning community
- ❖ Pilot in Fall 2016
- ❖ Evaluate throughout the process





Faculty Learning Community



Educational objectives* & structure



Remember & Understand

- Intro/video/reading
- Online quiz
- Instructor makes minor customizations

Apply

- Scenario/case/etc.
- Online discussion
- Instructor creates course-specific scenario

Analyze, Evaluate & Create

- Course assignment
- Instructor designs to require and assess authentic CT

* Bloom's taxonomy, revised

Critical Thinking

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▶ Introduction to Critical Thinking

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▼ Purpose and Questions

📄 Purpose & Questions - Learning objectives and video

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🎯 Purpose & Questions - Quiz

6 pts

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Purpose & Questions - Learning objectives and video

[Instructor provided element: Introduce this module by briefly explaining (~1 paragraph or several bullets) how these two elements of reasoning, Purpose and Question-at-issue, apply to the host course.]

Module learning objectives

At the conclusion of this module, you will be able to:

1. Explain the difference between the purpose of an intellectual activity and the question-at-hand.
2. Ask questions to clarify the Purpose and Question-at-issue in a problem description, statement, scenario, or similar document.
3. Refine and improve the Purpose and Question-at-issue in elements of a problem description, statement, scenario, or similar document.

Video

Start by watching these two 2-minute videos. As you watch, consider how Purpose and Question-at-issue are related and how they are different.

Purpose

<https://www.youtube.com/watch?v=tAPgRHPCQEA> 



Experiences & Lessons Learned

- ❖ Implementation
 - ❖ Challenge of the size of model
 - ❖ Disciplinary differences
 - ❖ Value of common vocabulary
-
- ❖ Provisional solutions - focus on selected elements situationally

Next Steps

❖ Fall '16

- Pilot modules developed in Spring '16
- Solicit feedback to refine modules

❖ Spring '17

- Launch another faculty learning community

Contact: Bill Kules, wmk@umd.edu



Questions for Discussion

- ❖ What deficits do you see in your students' work?
- ❖ What needs might this respond to in your own discipline?
- ❖ What would it take for you to adopt this module?
- ❖ What departmental challenges would you foresee?







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Purpose & Questions - Discussion

[Instructor provided element: Provide a scenario, video, etc. Have students identify, critique and suggest improvements to the purpose and questions-at-issue by applying the intellectual standards. Strategies for your scenario include:

1. **Choose a scenario that is relevant to the course and rich enough to use multiple times throughout the semester with multiple CT units**
2. **Choose a scenario that is similar to an assignment that you will give them.**
3. **Choose a scenario that is a lead-in to the deeper course assignment.**

The following example uses strategy 3, leading into the deeper course assignment. This discussion prompt is designed for a course called "Studio in Human-Centered Systems Design," which explores systems thinking and design methods from a socio-technical perspective, encouraging students to critically reflect on the assumptions and values embedded in systems. At this point in the semester, we are beginning to develop the project proposals.]

We have been discussing our project ideas for a few weeks and your teams have come up with exciting ideas. Now it's time to start making them concrete by drafting your project proposals. The Purpose and Questions-at-issue are useful tools at this point. Use each of these and the clarifying questions from the diagram (<https://www.criticalthinking.org/ctmodel/logic-model1.htm>) to create the beginning of your proposal. Draft 1 paragraph that explains the overall purpose and one paragraph that explains the specific question-at-issue of problem statement that your project will address.

By ____ post this to the small group discussions.

By ____ each person should respond to one of the posts. Use one of the other clarifying questions (perhaps from the intellectual standards) to see if there are areas where you can help them improve the draft..