








Critical Thinking Openers Toolkit

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Critical Thinking Openers Toolkit

Critical Thinking Openers is a whole class instructional activity that takes about 10 minutes to complete. Used as a class “opener,” this activity will help students learn, refine, and apply metacognitive (thinking about thinking) strategies to famous literary quotations from the greatest thinkers and writers of all time—from Plato to Einstein. After all, great thoughts induce great thinking.

Context and Rationale

Students, today, are bombarded with content. Knowledge increases exponentially, and the entire storehouse of human knowledge gained over the last six thousand years is now doubled every five years, or less. The old educational philosophy of filling empty heads with the cumulative wisdom of the ages is yielding to a new pedagogy. Knowledge as a product is now being replaced with knowledge as a process.

This is not to say that our accumulated knowledge is irrelevant. Quite to the contrary, it is essential. Without the inductive and deductive reasoning developed by the Ancient Greeks, and without the scientific method, refined by the Enlightenment thinkers, we would have no foundation upon which to build a new process-centered design, commonly referred to as *critical thinking*.

However, we must begin to practice what we preach. If we are to equip Twenty-First-Century students with the tools they need to add to our “knowledge pool,” we need to re-evaluate how we spend our time in the classroom. The standards-based movement, prevalent in many American schools today, is primarily product-driven. Despite much talk about differentiating instruction, according to the needs of students as indicated by diagnostic assessments, the primary delivery of knowledge in most classrooms remains product-centered. And all students learn the same product, the same way, and on the same timetable to perform (hopefully) the same way on standards-based assessments. The pressures on teachers to conform to this antiquated model of knowledge acquisition are formidable.

One way to implement change is incremental. A small, but effective way to start is with the traditional “opener” activities. These “bell-ringer” activities can establish an important framework for learning and a mind-set for the day’s activities, even if they are product-centered. To accomplish their process-centered mission, critical thinking openers must teach a schema for thinking that students can learn, practice, and apply with the coaching assistance of their teachers.

The word *schema* comes from the Greek word “σχήμα” (skēma), which means a mental planning process. The schema that I propose is not original, by any means. It involves four simple steps: *Observation*, *Interpretation*, *Application*, and *Revision*. *Observation* is *What do you see?* *Interpretation* is *What does it mean?* *Application* is *How can this be used?* *Revision* is *How can it be changed?*

Teaching Procedures

To provoke process-thinking, students need a context from which to explore the schema described above. The *Critical Thinking Openers Toolkit* uses famous literary quotations from the greatest thinkers and writers of all time, including contemporary minds from all knowledge disciplines to stimulate critical thinking.

1. Display and read the Student Model from the previous lesson, describing an insightful observation, interpretation, application, or revision.
2. Display the Critical Thinking Opener on an LCD, Smartboard®, or overhead projector.
3. Read the Literary Quotation twice outloud, defining vocabulary as is necessary.
4. Tell students to read the *Observation*, *Interpretation*, *Application*, and *Revision* question prompts and respond to one or more on binder paper or in Writers Notebooks.
5. Lead an interactive discussion on more or more components of the critical thinking schema.

Variations

- Introduce the critical thinking schema one at a time, layering in the components as students become more familiar with the components.
- In addition to individual responses (as described above), explore paired responses, cooperative group responses, whole class responses, and your own responses as teacher-coach. Try combining instructional methods. For example, starting off with paired written responses on the *Observation* will stimulate cooperative group brainstormed responses on the *Interpretation*, which will provoke terrific whole class discussions on the *Application*, which will engender creative and original individual ideas on the *Revisions*.
- Jigsaw the *Observation*, *Interpretation*, *Application*, and *Revision* components. Divide your students into heterogeneous groups of four or eight. Assign one component to each cooperative group (or one component to two groups, if using groups of eight). Assign group roles (pre-printed cards work well) such as spokespeople, recorders, time monitors, alternative questioners, summarizers, and evaluators to keep students on task and working well together. Allow five or six minutes to the task, and then facilitate an interactive discussion among the groups.

Do a teacher “Think Aloud” on one or more components of the critical thinking schema. See the following for how to incorporate this instructional technique:

CTO Critical Thinking Openers #1

Literary Quotation

“All would live long, but none would be old.”

Benjamin Franklin (1706 - 1790)

Definition/Explanation/Reflection: Growing old presents both opportunities and challenges.

Observation: What do you see? What do you feel? What seem to be the key words?

Interpretation: How would you put this into your own words? What does this mean? What doesn't this mean? What does this suggest? Why does the author say this?

Application: How can this be used? How could this thought affect something else? What conclusions can be drawn from this? Do you agree with this? How does this apply to you?

Revision: How else could this have been written? Revise this to reflect your point of view or ideas. Create something new to say about this subject.

Student Model