Cultivating Thinkers: Strategies for Increasing Students’ Critical Thinking Skills across the Disciplines

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By end of the session, you will

Have a working definition of critical thinking (CT) and be able to explain what it looks like when students “do it”

Identify specific strategies that you could incorporate to infuse CT into your classroom lessons and/or life-skills activities
We want our students to:

- Possess skills needed to understand and analyze complex issues
- Assess topics/events through diverse perspectives
- Solve Challenging Problems
- Critically evaluate logic, relevance, and accuracy of info.
- Approach issues with fairness, openness and humility
- Understand the role of personal biases and assumptions in their own and others’ thinking

From “Critical Thinking, the Cornerstone of Education” by John Chaffee
What is Critical thinking?

A very simple [yet powerful] definition...

**Thinking about thinking** while you’re thinking to **make your thinking better**

What is thinking?

How do we make our thinking better?
Applying Standards to our Thinking to Make our Thinking Better

CLARITY: Could you elaborate further on that point? Could you express that point in another way? Could you give me an illustration? Could you give me an example? Clarity is the gateway standard. If a statement is unclear, we cannot determine whether it is accurate or relevant.

ACCURACY: Is that really true? How could we check that? How could we find out if that is true? A statement can be clear but not accurate, as in "Most dogs are over 300 pounds in weight."

PRECISION: Could you give more details? Could you be more specific? A statement can be both clear and accurate, but not precise, as in "Jack is overweight." (We don’t know how overweight Jack is, one pound or 500 pounds.)

RELEVANCE: How is that connected to the question? How does that bear on the issue? A statement can be clear, accurate, and precise, but not relevant to the question at issue.
Critical Thinking in Action: YouthBuild
Lawrence
Teaching Critical Thinking: Things to Keep in Mind

• Teaching critical thinking is an art: There are many ways that instructors can coach their students to become better thinkers and problem solvers.

• It is not a step-by-step formulaic process. There is no specific recipe to follow. However, there are concepts and practices that we can work with as we deepen our practice over time!

• In order to effectively teach critical thinking, we must become better critical thinkers ourselves.

• It takes long-term commitment, hard work, and risk-taking!
Key Components of Teaching Critical Thinking

• The practices and standards for quality thinking have to be made explicit and founded on criteria of quality thinking. Students develop command of these criteria through practice.

• Requires active learning: moving responsibility away from the teacher (as the “deliverer of knowledge”) to making learning a shared responsibility between the teacher and the students.

• Effective instructors of critical thinking are ultimately good questioners.
Standards to improve thinking and questions that foster these standards

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Activity: Reflection and Discussion

- How are these standards important to the specific discipline that you teach at YouthBuild (e.g. science, math, ELA)? For example, how is the standard of accuracy important to the discipline of science?

- What are specific ways that students might benefit from making these standards explicit?
Practicing the standard of clarity...

We can’t analyze or assess any idea or concept until we understand it first!

Helping students establish clarity around ideas, concepts and facts is a key scaffolding technique for critical thinking.....
SEEI gives the us the tools to **clarify** our own and other’s thinking

| **S-tate** | the concept or main idea in a single sentence or two. Clearly and succinctly state the concept. |
| **E-laborate** | on the concept in your own words. Explain it at greater length in a paragraph or two. Clarify the concept in your own words. "In other words,. . ." |
| **E-xemplify** | the concept by giving concrete examples (and counter examples) of the concept. Specify the concept by giving specific examples. "For example, . . ." |
| **I-luustrate** | the concept with a picture, diagram, metaphor, or analogy. Generalize the concept. Give a comparison or metaphor or picture-in-words to bring it home. "It's like. . ." |
SEEI as it relates to the Bloom Taxonomy
Contexts in which the SEEI approach Can Be helpful...

• In students’ writing

• In students’ reading

• In students’ speaking

• Instructor and student questioning

• During group conversations (particularly around controversial topics)!

Could you elaborate further on that point? Could you express that point in another way? Could you give me an illustration? Could you give me an example?
Example: Practicing Standards of Clarity While Reading Using SEEI

Read each paragraph out-loud. After reading each paragraph...

1) State very clearly and concisely in one or two sentences the main idea or concept from the text.

2) Elaborate on the concept in your own words. Explain it at greater length in a paragraph. Clarify the concept in your own words. "In other words,..."

3) Try to think of an example from your own personal experience as it relates to the main idea of in the text.

3) When reading the paragraph underline words that you are unfamiliar with or did not make sense for you. How can you go about finding the information you need to understand this word?
Developing Activities Using SEEI

1. **Reading Assignments**: Identify a specific reading assignment that you recently planned (or are in the process of planning). How would you structure this reading assignment so that students can use SEEI to develop a clearer understanding of the material? What would you have students do while they read? How will students demonstrate their understanding of the material? How will you assess students’ understanding?

2. **Classroom dialogue**: How might you introduce SEEI to students and them structure opportunities for students to practice these skills while engage in group dialogue? Design a classroom activity where students would practice SEEI with each other using concepts introduced in your courses. What concepts and ideas would you want students to understand and how can you use SEEI to help students understand these concepts.

3. **Writing assignment**: Plan a writing assignment where students are actively using SEEI principles
Activity: Ending reflection

• Identify one technique that you learned today that you would like to use while working with students. What specific steps do you need to take to implement this practice successfully?