

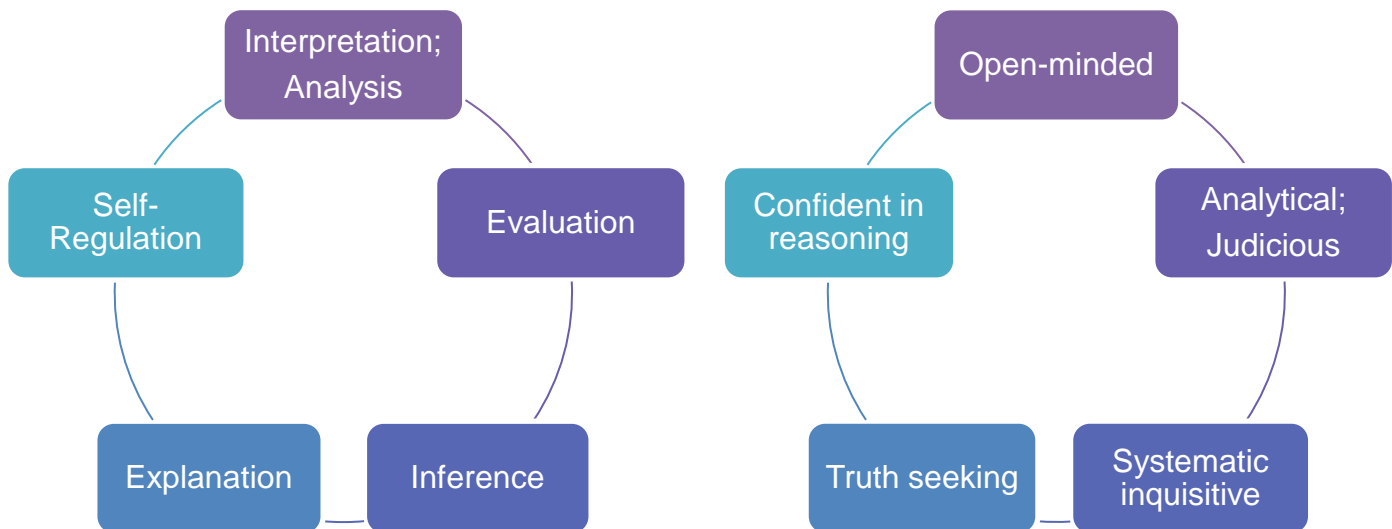
A Primer on Critical Thinking

Critical Thinking:

A well-cultivated critical thinker:

- a. raises vital questions and problems, formulating them clearly and precisely;
- b. gathers and assesses relevant information, and effectively interprets it;
- c. comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- d. thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- e. communicates effectively with others in figuring out solutions to complex problems.
- f. Critical thinking is, self-directed, self-disciplined, self-monitored, and self-corrective thinking. It entails effective communication and problem-solving abilities (Paul & Elder, 2002, p. 15).

Facione (2004) described cognitive skills and affective dispositions associated with critical thinking. These include:



Critical Thinking and the Learning Environment:

- a. Formulate discussions and questions to improve adult learners' critical thinking skills:

Clarity Could you elaborate further?

Could you give me an example?

Accuracy How could we find out if that is true?

How could we verify or test that?

Precision Could you give me more details?

Could you be more exact?

Relevance How does that relate to the problem?

How does that help us with the issue?

Depth	What factors make this a difficult problem? What are some of the complexities of this question?
Breadth	Do we need to look at this from another perspective? Do we need to consider another point of view?
Logic	Does all this make sense together? Does what you say follow from the evidence?
Significance	Is this the central idea to focus on? Which of these facts are most important?
Fairness	Do I have any vested interest in this issue? Am I sympathetically representing the viewpoints of others? (Paul & Elder, 2006).

- b. Plan authentic tasks which address important issues or problems.
- c. Replicate real life situations within the discipline.
- d. Restructure learning to promote higher level thinking (See "*Blooms taxonomy*").
- e. Promote active learning by planning inductive teaching- learning methods such as:
 - Guided Inquiry;
 - Problem-based;
 - Project-based; and
 - Case-base learning.

Resources: Svinicki & McKeachie, 2011; Huba & Freed, 2000; Paul & Elder, 2006; Prince & Felder, 2006.

Submitted by
Valerie Lopes, PhD
[Seneca College](#), Canada
Professor, [Centre for Academic Excellence](#)