The Miniature Guide
to

Critical Thinking

Concepts and Tools

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Why A Critical Thinking Mini-Guide?

This miniature guide focuses on of the essence of critical thinking concepts and tools distilled into pocket size. For faculty it provides a shared concept of critical thinking. For students it is a critical thinking supplement to any textbook for any course. Faculty can use it to design instruction, assignments, and tests in any subject. Students can use it to improve their learning in any content area.
Its generic skills apply to all subjects. For example, critical thinkers are clear as to the purpose at hand and the question at issue. They question information, conclusions, and points of view. They strive to be clear, accurate, precise, and relevant. They seek to think beneath the surface, to be logical, and fair. They apply these skills to their reading and writing as well as to their speaking and listening. They apply them in history, science, math, philosophy, and the arts; in
professional and personal life.

When this guide is used as a supplement to the textbook in multiple courses, students begin to perceive the usefulness of critical thinking in every domain of learning. And if their instructors provide examples of the application of the subject to daily life, students begin to see that education is a tool for improving the quality of their lives.

If you are a student using this mini-guide, get in the habit of carrying it with you to every class. Consult it frequently in analyzing and synthesizing what you are learning. Aim for deep internalization of the principles you find in it—until using them becomes second nature.

If successful, this guide will serve faculty, students, and the educational program simultaneously.

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Why Critical Thinking?

The Problem:

Everyone thinks; it is our nature to do so. But much of our thinking, left to itself, is biased, distorted, partial, uninformed or down-right prejudiced. Yet the quality of our life and that of what we produce, make, or build depends precisely on the quality of our thought. Shoddy thinking is costly, both in money and in quality of life. Excellence in thought, however, must be systematically cultivated.

A Definition:

Critical thinking is the art of analyzing and evaluating thinking with a view to improving it.

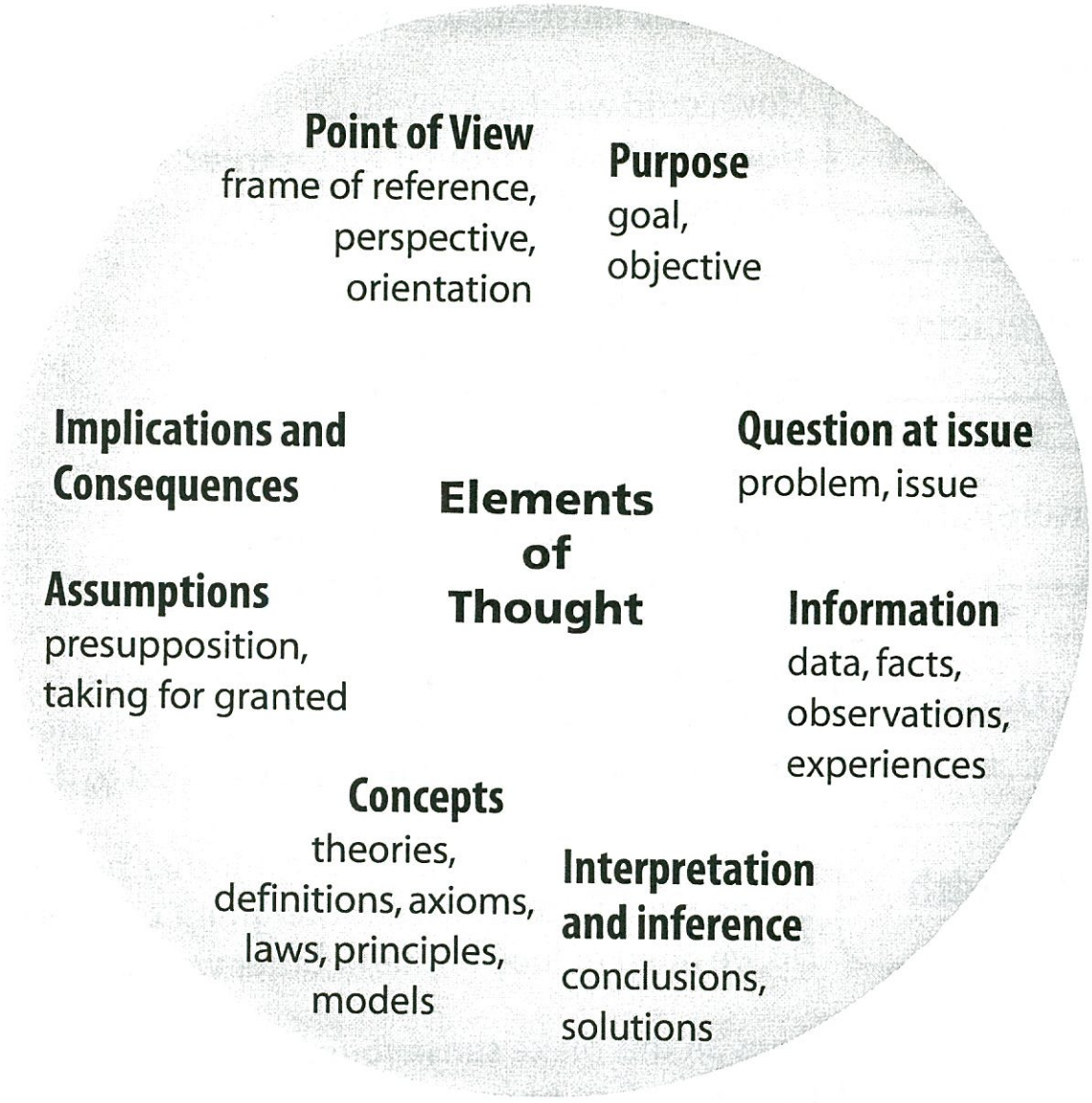
The Result:

A well cultivated critical thinker:

- raises vital questions and problems, formulating them clearly and precisely;
- gathers and assesses relevant information, using abstract ideas to interpret it effectively;
- comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- thinks openmindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- communicates effectively with others in figuring out solutions to complex problems.

Critical thinking is, in short, self-directed, self-disciplined, self-monitored, and self-corrective thinking. It requires rigorous standards of excellence and mindful command of their use. It entails effective communication and problem solving abilities and a commitment to overcome our native egocentrism and sociocentrism.

The Elements of Thought



Used With Sensitivity to Universal Intellectual Standards

Clarity → Accuracy → Depth → Breadth → Significance
Precision
Relevance

Clarity	Could you elaborate further? Could you give me an example? Could you illustrate what you mean?
Accuracy	How could we check on that? How could we find out if that is true? How could we verify or test that?
Precision	Could you be more specific? Could you give me more details? Could you be more exact?
Relevance	How does that relate to the problem? How does that bear on the question? 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? What are some of the difficulties we need to deal with?
Breadth	Do we need to look at this from another perspective? Do we need to consider another point of view? Do we need to look at this in other ways?
Logic	Does all this make sense together? Does your first paragraph fit in with your last? Does what you say follow from the evidence?
Significance	Is this the most important problem to consider? 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?

Intellectual Integrity

Intellectual Autonomy

Intellectual Humility

Intellectual Empathy

Intellectual Traits or Virtues

Confidence in Reason

Intellectual Courage

Intellectual Perseverance

Fairmindedness

Critical thinkers routinely apply the intellectual standards to the elements of reasoning in order to develop intellectual traits.