

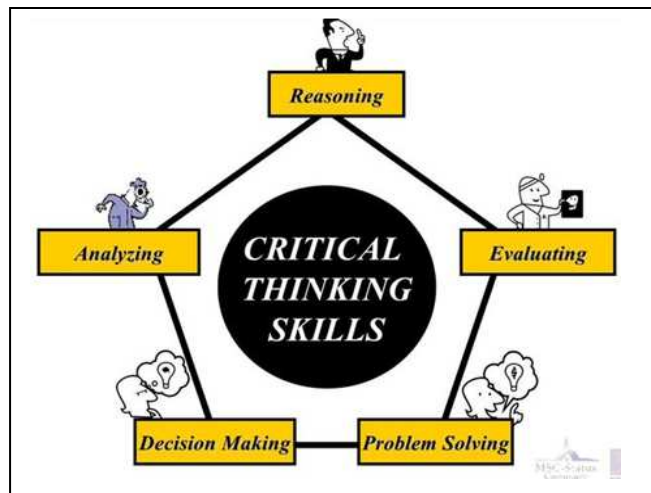
Critical Thinking

"It is the mark of an educated mind to be able to entertain a thought without accepting it." - *Aristotle*

"The important thing is not to stop questioning." - *Albert Einstein*

What is critical thinking?

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.



A Critical Thinker:

- ✓ Asks pertinent questions
- ✓ Assess statements and arguments
- ✓ Is able to admit a lack of understanding or information
- ✓ Has a sense of curiosity
- ✓ Is interested in finding new solutions
- ✓ Examines beliefs, assumptions and opinions and weighs them against facts
- ✓ Listens carefully to others and can give effective feedback
- ✓ Suspends judgment until all facts have been gathered and considered
- ✓ Look for evidence to support assumptions or beliefs
- ✓ Is able to adjust beliefs when new information is found
- ✓ Examines problems closely
- ✓ Is able to reject information that is irrelevant or incorrect

Critical Thinkers	Uncritical Thinkers
Have a passionate drive for clarity, precision, accuracy, relevance, consistency, logicalness, completeness, and fairness.	Often think in ways that are unclear, imprecise, inaccurate, etc.
Are sensitive to ways in which critical thinking can be skewed by egocentrism, sociocentrism, wishful thinking, etc.	Often fall prey to egocentrism, sociocentrism, wishful thinking, etc.
Are intellectually honest with themselves, acknowledging what they don't know and recognizing their limitations.	Pretend they know more than they do and ignore their limitations.
Listen open-mindedly to opposing points of view and welcome criticisms of beliefs and assumptions.	Are close-minded and resist criticisms of beliefs and assumptions.
Base their beliefs on facts and evidence rather than on personal preference or self-interest.	Often base their beliefs on mere personal preference or self interest.
Are aware of the biases and preconceptions that shape the way they perceive the world.	Lack awareness of their own biases and preconceptions.
Think independently and are not afraid to disagree with group opinion.	Tend to engage in 'group think', uncritically following the beliefs and values of the crowd.
Are able to get to the heart of an issue or problem without being distracted by details.	Are easily distracted and lack the ability to zero in on the essence of a problem or issue.
Have the intellectual courage to face and assess fairly ideas that challenge even their most basic beliefs.	Fear and resist ideas that challenge their basic beliefs.
Love truth and curious about a wide range of issues.	Are often relatively indifferent to truth and lack of curiosity.
Have the intellectual perseverance to pursue insights or truths, despite obstacles or difficulties.	Tend to preserve when they encounter intellectual obstacles or difficulties.

Critical Thinking Standards and Questions:

The most significant thinking (intellectual) standards/questions:

- Clarity
 - Could you elaborate further on that point?
 - Could you give me an example?
 - Could you express that point in another way?
- Accuracy
 - Is that really true?
 - How could we check that?
 - How could we find out if that's true?
- Precision
 - Could you give me more details?
 - Could you be more specific?
- Relevance
 - How is that connected to the question?
 - How does that bear on the issue?
- Depth/ Breadth
 - How does your answer address the complexities in question?



- How are you taking into account the problems in the question?
- Do we need to consider another point of view?
- Is there another way to look at this question?
- What would this look like from the point of view of....?
- Logic
 - Does this really make sense?
 - How does that follow from what you just said?
- Fairness
 - Is our thinking open-minded?
 - Is our thinking free of distorting beliefs or biases?

Common Barriers to Critical Thinking

Common Barriers	
● Lack of relevant background information	● Distrust of reason
● Poor reading skills	● Stereotyping
● Poor listening skills	● Unwarranted assumptions and stereotypes
● Bias	● Relativistic thinking
● Prejudice	● Scapegoating
● Superstition	● Rationalization
● Egocentrism	● Wishful thinking
● Socio-centrism	● Short-term thinking
● Peer pressure	● Selective perception / attention
● Mindless Conformism	● Selective memory
● Mindless non-conformism	● Overpowering emotions
● Provincialism	● Self-deception
● Narrow-mindedness	● Face-saving
● Closed-mindedness	● Fear of change