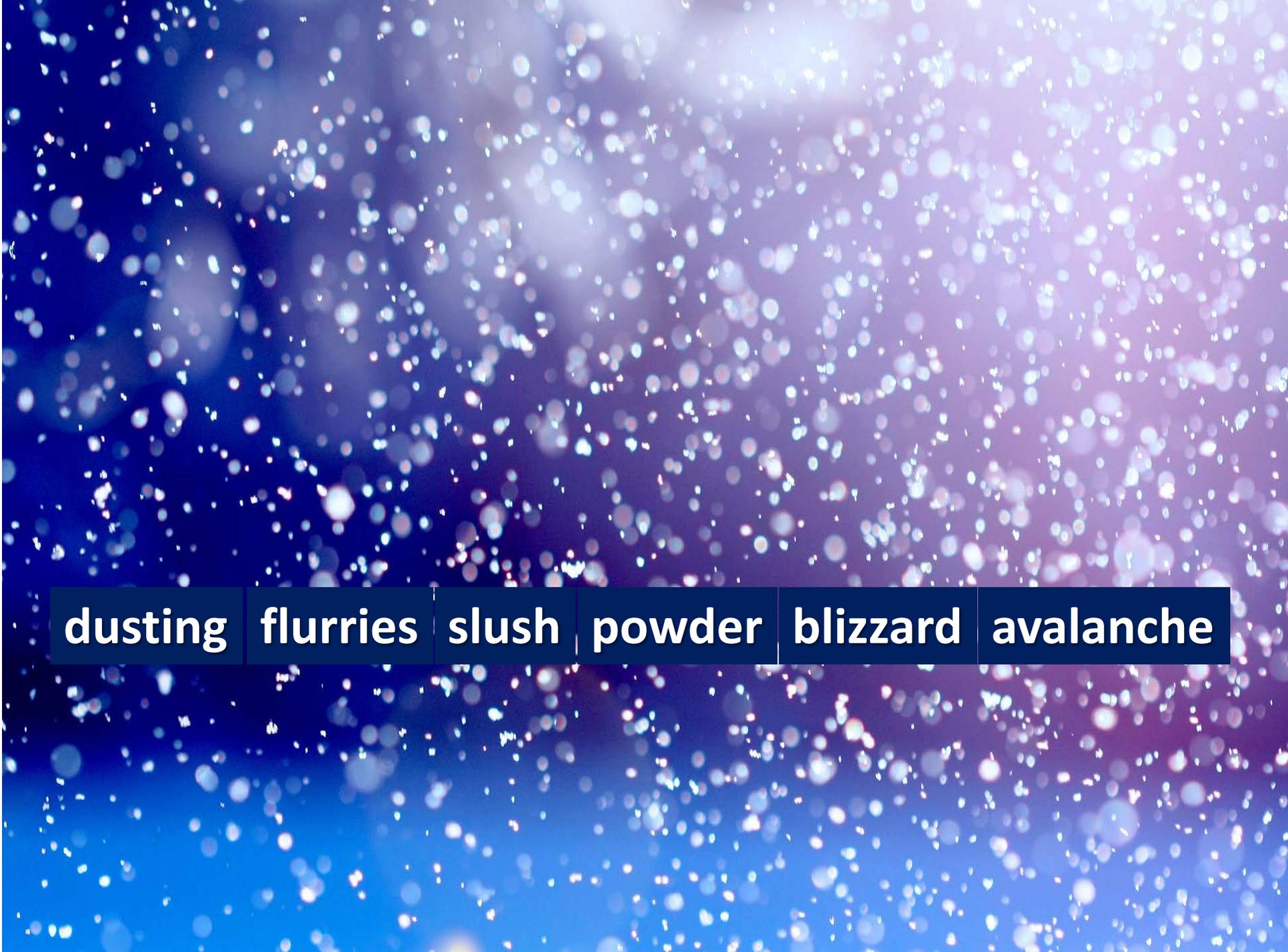


Critical Thinking: Language and Culture

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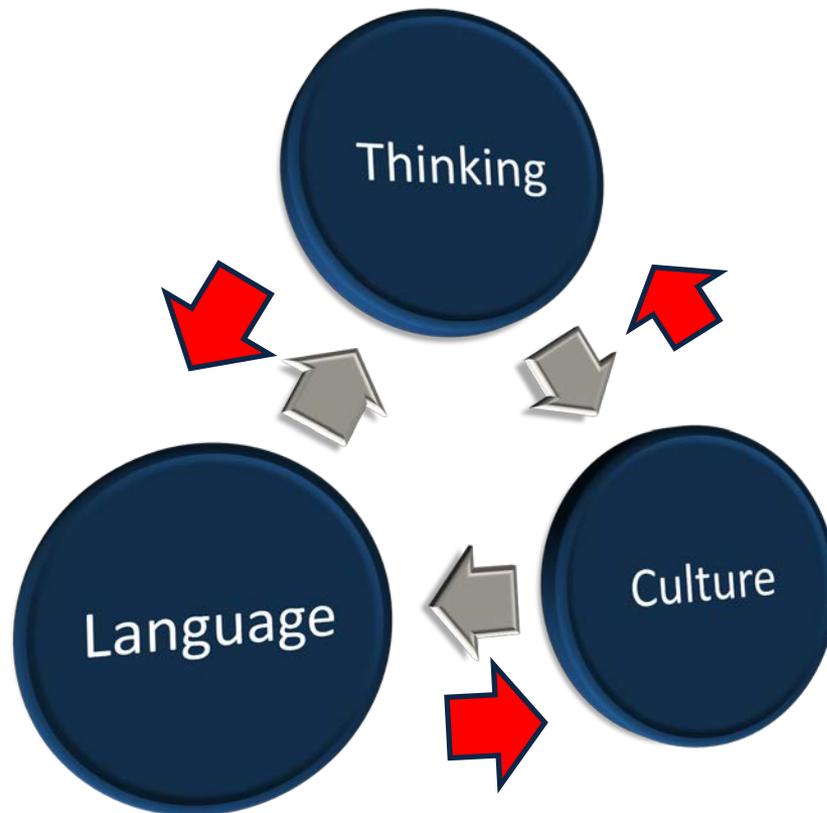
SNOW

The background of the image is a dense field of white snowflakes of various sizes falling from top to bottom. The background color is a gradient, starting with a deep blue at the top and transitioning to a lighter, purplish-blue at the bottom. The snowflakes are most concentrated in the upper half of the image, creating a sense of depth and movement.

dusting flurries slush powder blizzard avalanche

Routines become Habits

We **think** in ways that we learned to speak.
We speak in ways that we learned to **think**.



Language: The system of words or signs that people use to express thoughts and feelings

Thinking: The action of using your mind to produce ideas, decisions, memories, etc.

Culture: A way of thinking, behaving, or working that exists in a place or organization

(Merriam Webster)

management
ORGANIZATIONAL
CULTURE
company

behavior
feedback
status
unique
cognitive
employee
task
result
meaning
success
symbols
type
leadership
high
values
stories
cultural
society
external
problems

fit
social
expertise
interpersonal
organizational
knowledge
important
deepest
satisfaction
outlasting
collective
growth
belief
result

Top Company Cultures



Collaboration
Innovation
Agility
Communication
Support
Wellness
Work-environment
Responsibility
Performance Focus
Mission & Value
Alignment

Strategic Systems Program (SSP)



Mission: Provide credible and affordable solutions to the warfighter

Vision: Apply SSP values and abilities to:

- Deliver high performance and responsive products to the warfighter
- Meet and/or exceed stakeholders' expectations
- Continually improve our processes
- Enrich the civilian and military workforce
- Sustain the Government / contractor strategic alliance

Core Values:

- Commitment to People
- Integrity
- Respect Accountability
- Professional
- Partnership
- Communications
- Innovation
- Empowerment
- Dedication
- Technical

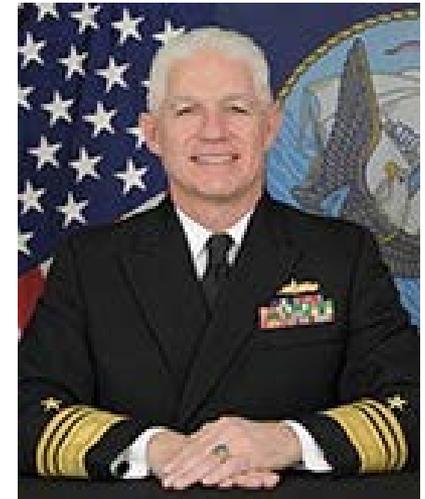
- Fukushima Nuclear disaster: The fundamental causes are to be found in the ingrained conventions of Japanese culture (e.g., reluctance to question authority; devotion to **'sticking with the program'**)
- NASA Challenger Disaster: **"Can Do" attitude**, that was inspired by past successes and which discouraged individuals from stepping forward and suggesting "Can't Do."
- USS Greeneville Collision: The **emphasis on rushing** through the procedures... there wasn't enough time to go through the afternoon's activities, maybe someone should have said something to that effect.

SSP Culture

"Carrying it forward" Vice Admiral Benedict



- **High consequence environment with a well formed culture**
 - No individual has unilateral authority
 - Long-term stable workforce
 - 160 successful missions (out of 162)
- **Deliberate design of risk aware/risk evaluation culture**
 - Promotes a questioning attitude
 - Encourages ideas and criticism
 - Transparent decision support
 - Rigorous and open self-appraisal
 - Humility and leadership by example



Vice Admiral Terry Benedict
SSP Director

Think.



Think. The first responsibility of the acquisition workforce is to think. We need to be true professionals who apply our education, training, and experience through analysis and creative, informed, thought to address our daily decisions. Our workforce should be encouraged by leaders to think and not to default automatically to a perceived “school solution” just because it is expected to be approved more easily.

Mr. Frank Kendall

*The Optimal Program Structure
ATL Magazine, July 2012*

Think ... don't default to “school solutions.”

Critical thinking is necessary for success; fixed rules are too constraining. This principle was the core concept behind BBP 2.0, which is subtitled “a guide to help you think.” ... There is no shortage of policy or history to assist us, but at the end of the day we have to figure out the best course of action in a specific circumstance, balancing all of the complex factors that apply to a given situation.

Mr. Frank Kendall

Better Buying Power Principles
ATL Magazine, February 2016

Critical Thinking is necessary for success



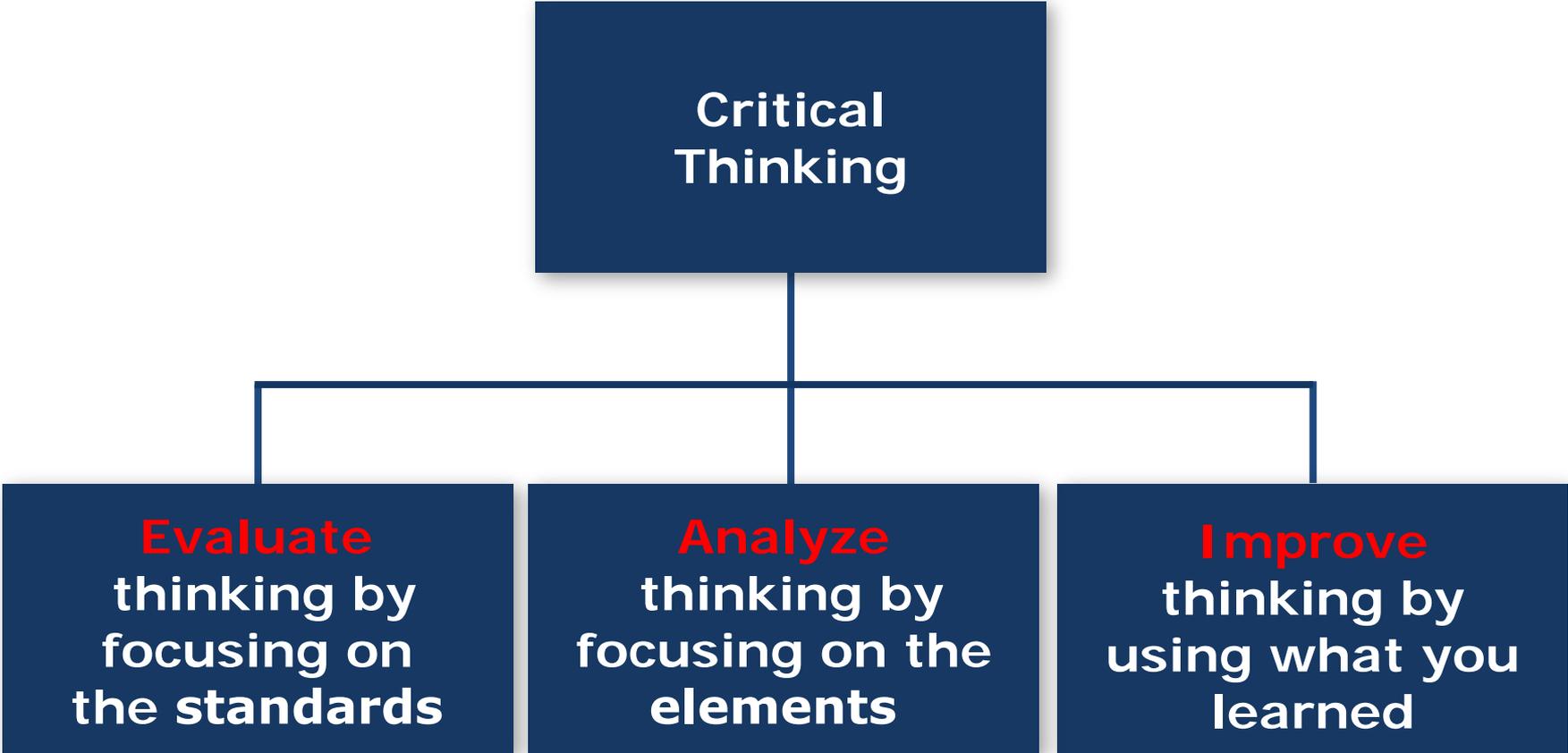
Critical Thinking—The art of analyzing and evaluating thinking with a view to improving it.

—*Paul and Elder*

Critical Thinking is NOT something you add to everything you do...

It is the way (attitude and skill) you do everything.

Critical Thinking



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graph TD; A[Critical Thinking] --- B[Evaluate thinking by focusing on the standards]; A --- C[Analyze thinking by focusing on the elements]; A --- D[Improve thinking by using what you learned]
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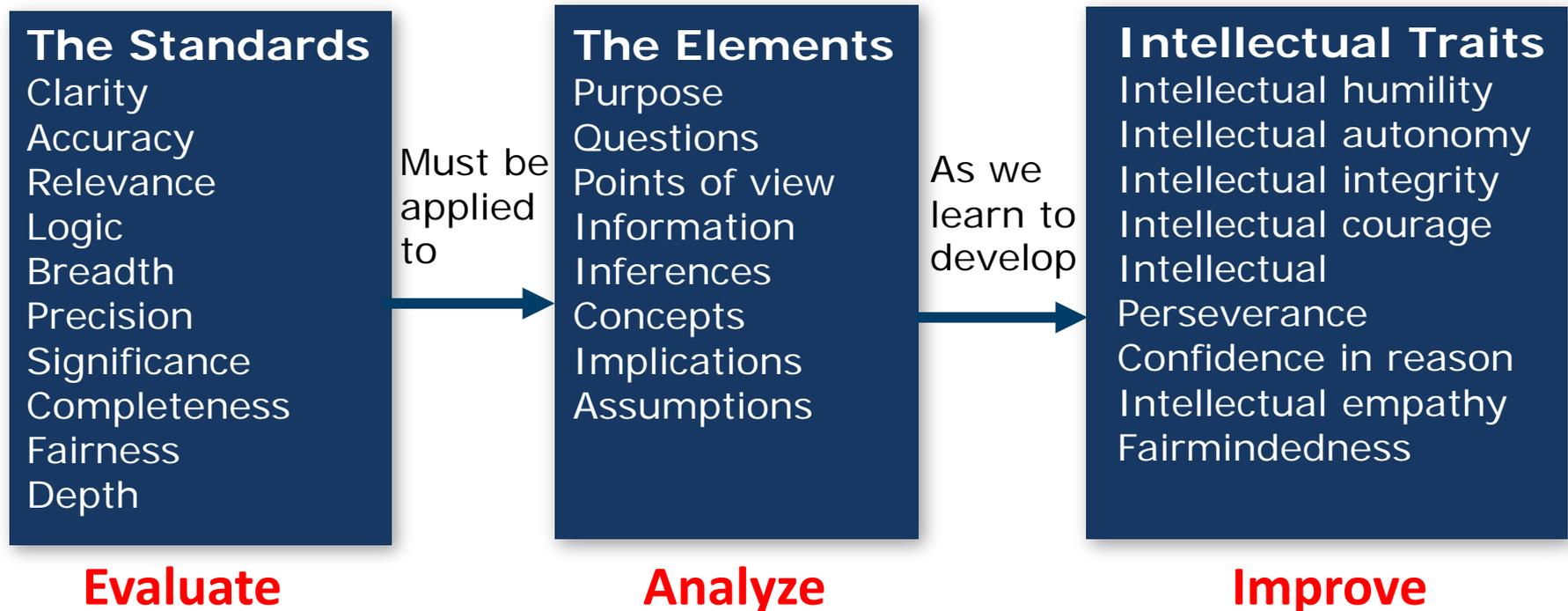
Evaluate
thinking by
focusing on
the standards

Analyze
thinking by
focusing on the
elements

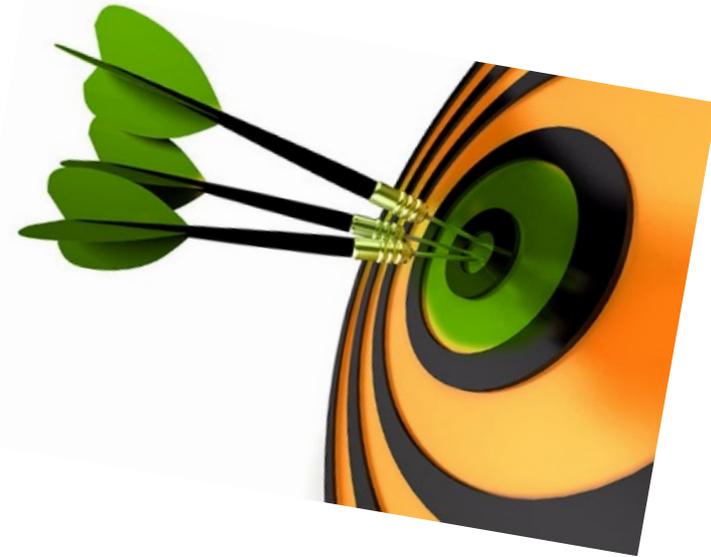
Improve
thinking by
using what you
learned

Critical Thinking Routine

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



- Goal or objective you are trying to accomplish
- Choose significant and realistic purposes
- Questions can ask:
 - “What is the purpose of my thinking?”
 - “What am I trying to accomplish?”



- Perspective – the way you see the issue
- Consider what aspects of the issue you focus on and why
- Questions can ask:
 - “How am I looking at this issue?”
 - “What other perspectives should I consider?”



- Beliefs that operate at the subconscious or unconscious level
- Clearly identify your assumptions and determine whether they are justifiable
- Questions you can ask:
 - What am I assuming?
 - What am I taking for granted?
 - Are my assumptions consistent with my information and conclusions?



Primary Standards



✓ **Breadth**

Involving multiple viewpoints

✓ **Relevance**

Directly related to the issue at hand

✓ **Fairness**

Justifiable, not self-serving or one-sided

✓ **Clarity**

Understandable, the meaning can be grasped

✓ **Significance**

Focusing on the important, not trivial

A Classic Case Study

- April 23, 1985 the Coca Cola company launched New Coke - changing the 99 year-old formula of the world's most popular soft drink
- Prior to the change - Coke sales had remained flat while Pepsi sales rose steadily
- In focus groups most liked the new taste, but a few responded negatively
- Consumers boycotted and protested – demanding return of the old formula (300,00 calls and letters)
- July 11, 1985 the return of original formula Coca-Cola



Purpose?
Point-of-view?
Assumptions?

Critical Thinking & COKE



Purpose	Point of View	Assumptions
<p>Clarity: Have we made the purpose clear? Does everyone understand it?</p>	<p>Breadth: Are we thinking broadly enough about this issue to address it adequately? Have we considered opposing points of view on this issue?</p>	<p>Clarity: What am I taking for granted as fact or truth? Are our assumptions clear? Do I fully understand what my assumptions are based on?</p>
<p>Significance: What different purposes exist? How are they related? Is it aligned with the issue we want to address?</p>	<p>Clarity: Have we articulated our point of view?</p>	<p>Relevance: Are our assumptions consistent with the information/data and the conclusions?</p>
	<p>Fairness: Have we clearly and fairly presented other perspectives?</p>	
	<p>Relevance: What does our point-of-view ignore or dismiss?</p>	

- Language and Thinking habits create culture:
 - **Language shapes thinking**
 - **Thinking is expressed through language**
- Critical thinking is not a natural way of thinking – it is deliberate and requires practice:
 - **Purpose**
 - **Point of View**
 - **Assumptions**
- A critical thinking culture is deliberately designed:
 - **Demonstration**
 - **Explanation**
 - **Interaction**
 - **Feedback**

A mind cannot be independent of culture

Vygotsky