

Critical Thinking and Decision Making

A developU Workshop



High-Quality Decisions

- Analyzed uncertainties
- Have fewest unknowns



What Gets in the Way?

- Biases, biased info or sources
- Lack of structured reasoning
- Not thinking creatively
- Not using analytical tools
- Emotions
- Decisions made on “autopilot”



High Quality vs. Low Quality

Knowledge	High Quality (informed, reasoned, balanced)	Low Quality (biased, superficial)
Limitations of	Recognized	Not recognized
Quality of	Understood	Exaggerated

Eight Elements of Reasoning

- Purpose
- Question at Hand
- Information
- Interpretation and Inference
- Concepts
- Assumptions
- Impacts and Consequences
- Point of View/Context



1 Purpose

Objectives, goals, desired outcome, intentions, function

Ask:

- What are we trying to accomplish?
- What is the main purpose?

2 Question at Hand

Topic, question at hand, issues, problem or opportunity

Ask:

- What question am I analyzing?
- Do I understand the complexity of the question?
- Is the question clear or complex?

3 Information

Data, research, evidence, observation, experiences, facts

Ask:

- What data are we using?
- What experience am I using to support my claim?
- What information do I need?

4 Interpretation and Inference

Interpretations, conclusions, solutions

Ask:

- How have I reached this conclusion, solution?
- Does this interpretation make sense?

5 Concepts

Definitions, principles, theories, categories, models, laws

Ask:

- What is the main concept here?
- Am I able to explain this concept?

6 Assumptions

Background theory, pre-supposition, what is/isn't given?

Ask:

- What assumption might I be using to come to this conclusion?
- Am I taking anything for granted?

7 Impacts and Consequences

Risk and cost/benefit analysis, alternative analyses, options, choices

Ask:

- Have I identified risks and implications?
- What other alternatives have I considered?

8 Point of View/Context

Perspective, background, orientation, setting, bias, frame of reference

Ask:

- What point of view am I using to analyze this issue?

Apply Critical Standards

Clarity	Is it understandable?
Accuracy	Free of errors, factual, true
Precision	Level of detail, precise, specific

Apply Critical Standards (cont'd)

Relevance	Relates to matter at hand
Depth/Breadth	Appropriately complex, considers multiple viewpoints
Logic	Logical solution based on problem

Apply Critical Standards (cont'd)

Significance	Complete focus, adequate consideration
Fairness	Considers all sides, not self-serving or biased