

Playbook For Critical Thinking

Critical thinking is the process of analyzing, synthesizing, and evaluating information to make reasoned decisions and solve complex problems. Engaging in clear, rational, and logical thought, free from bias or egocentric tendency. There are six important skills needed for critical thinking. We've identified a definition of the skills in the context of the critical thinking process, identified the "why" of the importance of the skill, and provided a specific example of each.

1. Analysis

- **What it is:** The ability to break down complex information and examine it in detail.
- **Why it is important:** Analysis enables you to methodically evaluate information and make logical conclusions.
- **What it looks like in action:** The sea level rise team reads several articles and attends several seminars about climate change. By analyzing data points and arguments from different sources, they can differentiate between valid research and misinformation.

2. Interpretation

- **What it is:** The process of understanding and explaining the significance of information.
- **Why it is important:** Proper interpretation is essential to avoid misjudgments and make well-informed decisions.
- **What it looks like in action:** Your department's budget manager interprets financial reports to understand revenue and expenditure trends and to make informed budget decisions.

3. Inference

- **What it is:** Drawing conclusions based on evidence and reasoning.
- **Why it is important:** Inference is essential for making predictions or assumptions when all facts are not immediately available.
- **What it looks like in action:** Detectives infer a suspect's behavior by piecing together clues from a crime scene, even when direct evidence is lacking.

4. Evaluation

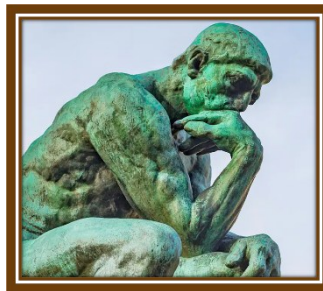
- **What it is:** Assessing the credibility of statements, arguments, and sources of information.
- **Why it is important:** Evaluation ensures that decisions are based on reliable and accurate information, rather than bias or judgment.
- **What it looks like in action:** Before purchasing a product or service, the head of purchasing evaluates reviews, expert opinions, life expectancy, and other credible data to ensure quality and reliability.

5. Problem-solving

- **What it is:** Identifying solutions to complex problems using logical reasoning.
- **Why it is important:** Problem-solving enables you to tackle challenges in thoughtful, logical ways.
- **What it looks like in action:** Engineers solve design problems by experimenting with prototypes and adjusting solutions based on feedback.

6. Decision-making

- **What it is:** Choosing the best course of action from several alternatives.
- **Why it is important:** Good decision-making is critical in both personal and professional life.
- **What it looks like in action:** A project manager selects the most suitable project management software by considering ease of use, cost, and level of ability to meet the required needs.



48 Questions for Critical Thinking

(Adapted from 48 Questions for Critical Thinking by Justin Wright, BrillianceBrief.com)

WHO	<ol style="list-style-type: none"> 1. Who is affected by this issue? 2. Who faces the biggest consequences? 3. Who holds the power in this situation? 4. Who might see this differently? 	<ol style="list-style-type: none"> 5. Who are the key stakeholders involved? 6. Who benefits from this outcome? 7. Who else should be consulted? 8. Who can provide more information?
WHAT	<ol style="list-style-type: none"> 1. What is the issue at hand? 2. What are the main arguments? 3. What is the evidence? 4. What assumptions are being made? 	<ol style="list-style-type: none"> 5. What are the potential consequences? 6. What alternatives exist? 7. What are the risks of each alternative? 8. What steps can be taken next?
WHERE	<ol style="list-style-type: none"> 1. Where did this first become an issue? 2. Where is the problem most evident? 3. Where can we find supporting data? 4. Where have solutions worked before? 	<ol style="list-style-type: none"> 5. Where are resources most needed? 6. Where are potential obstacles located? 7. Where can we implement solutions first? 8. Where should we monitor the outcomes?
WHEN	<ol style="list-style-type: none"> 1. When did this issue first emerge? 2. When do the effects typically appear? 3. When was the data last collected? 4. When is the best time to act? 	<ol style="list-style-type: none"> 5. When have solutions been attempted? 6. When is the deadline for action? 7. When should we expect to see results? 8. When will we review progress?
WHY	<ol style="list-style-type: none"> 1. Why is this issue significant? 2. Why did it arise in the first place? 3. Why are certain solutions preferred? 4. Why might opinions differ? 	<ol style="list-style-type: none"> 5. Why has this not been addressed sooner? 6. Why are some more affected than others? 7. Why is immediate action necessary? 8. Why should we revisit it in the future?
HOW	<ol style="list-style-type: none"> 1. How did this issue start? 2. How does this impact different groups? 3. How can we gather more data? 4. How have others tackled similar issues? 	<ol style="list-style-type: none"> 5. How will we implement the solution? 6. How will we measure success? 7. How should we communicate changes? 8. How often should we reassess?