

Critical thinking process

State the question or problem

- The question or problem should be clear and precise to guide thinking
- Express the question or problem in several ways to clarify its meaning

Gather relevant and sufficient information

- All reasoning is based on data, facts, evidence and experiences
- Look for information that opposes your position as well as information that supports it

Check Assumptions

- Clearly identify and justify your assumptions
- Consider how your assumptions are shaping your thoughts

Consider different perspectives

- Identify your point of view and seek others
- Be fair minded when evaluating points of view
- Consider the problem through the different lenses of ANZ's ICARE values

Interpret information correctly

- Infer only what the evidence implies
- Identify assumptions underlying inferences

Remember the anablep?

One set of eyes watch above the water to its predators.
One set of eyes watch below the water for its prey.



Components of critical thinking

Discover Assumptions

- What assumptions have we made that influence how we think and act?

Check Assumptions

- Are our assumptions valid?
- Are the assumptions supported by evidence?

See things from different perspectives

- Under what conditions do our assumptions make sense
- Consider multiple and different points of view

Take informed action

- Actions based on thought and analysis that lead to the desired results and are supported by evidence

De Bono's Six Thinking Hats

([De Bono site link](#)) ([Youtube link](#))



Neutral and objective. White hat thinking provides discipline and direction, asking questions to obtain information or find information gaps.



How I feel. Red hat thinking legitimises emotions and feelings without attempting to justify or provide a logical basis for them.



Negative assessment (not argumentative). Black hat thinking is an objective attempt to put the negative elements onto the map. May point out errors in the thinking procedure itself.



Positive and constructive assessment. Yellow hat thinking probes and explores for value and benefit, including logical support it these. Making it happen.



Creative thinking and searching for alternatives. Green hat thinking goes beyond the known, obvious and satisfactory and taking us out of our usual patterns.



Control and organising the thinking. Blue hat thinking sets focus, defines problems and shapes questions. Responsible for conclusions, summaries and overviews. The orchestra conductor.

Remember:
Just one hat at a time



Agenda - Team Meeting

- Define the purpose (5 mins)
- How is everyone? (2 mins)
- Share information with team (10 mins)
- What went well? Share good news (10 mins)
- What challenges did we have? (10 mins)
- Share ideas Offers of help (10 mins)
- How do we feel now? (2 mins)
- Define agreed actions and next steps (10 mins)

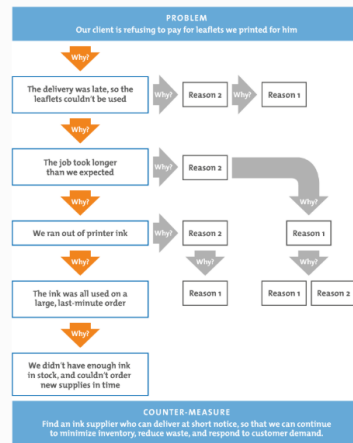
The 5 Whys [\(Mindtools link\)](#)

For simple or moderately difficult problems. 5 Whys uses “counter-measures” rather than solutions and is most effective when answers come from people with hands-on experience of what is being examined.

[Consider failure mode and effects analysis for complex or critical problems.]

5 Whys (multiple lanes)

1. Assemble a team
2. Define the problem
3. Ask the first why
4. Ask why 4 more times
5. Know when to stop
6. Address the root cause(s)
7. Monitor your counter-measures



Force Field Analysis [\(Mindtools link\)](#)

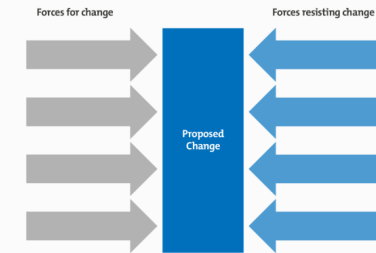
1. Describe the plan or proposal for change
2. Identify forces for change
3. Identify forces against change
4. Assign scores – from 1 (weak) to 5 (strong)
5. Analyse and apply

Now you can use the analysis in two ways:
To decide whether or not to move forward with the decision or change.

To think about which supportive forces you can strengthen and which opposing or resisting forces you can weaken, and how to make the change more successful.

The idea behind Force Field Analysis is that situations are maintained by an equilibrium between forces that drive change and others that resist change, as shown in figure 1, below. For change to happen, the driving forces must be strengthened or the resisting forces weakened.

Figure 1 – Force Field Analysis



The tool is useful for making decisions by analyzing the forces for and against a change, and for communicating the reasoning behind your decision.

Figure 2 – Example Force Field Analysis

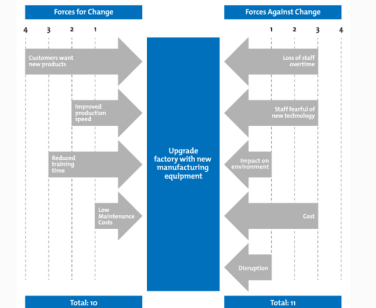


Image adapted from "Tools for Knowledge and Learning A Guide for Development and Humanitarian Organisations" by Ben Ramalingam © Overseas Development Institute 2006. Adapted with permission from Ben Ramalingam.

SWOT Analysis [\(Mindtools link\)](#)

Analyse **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats from an organisational perspective. *(PEST can be useful for Threats analysis).*

Consider the opportunities that strengths open up or mitigating weakness could create. Only use precise, verifiable statements, eg “cost advantage of x” not “value for money”.

PEST Analysis [\(Mindtools link\)](#)

Analyse **P**olitical, **E**conomic, **S**ocio-Cultural, and **T**echnological changes in the environment (big picture) and the opportunities and threats that they present.

1. Brainstorm factors: eg, pending legislation, economic growth / employment, demographics and values, emerging technology
2. Brainstorm opportunities and brainstorm threats
3. Build action plans to exploit significant opportunities and/or mitigate significant threats.

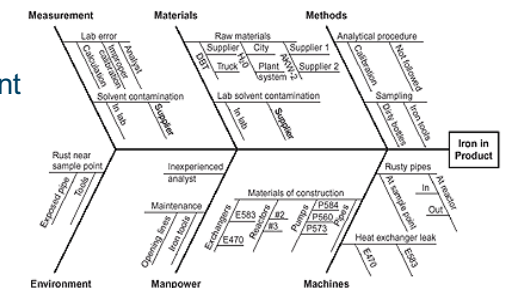
Fishbone: cause and effect analysis [\(Mindtools link\)](#) [\(ASQ link\)](#)

1. Agree a problem statement (effect).
2. Brainstorm the major categories of causes of the problem and write the categories as branches from the main arrow.

3. Brainstorm possible problem causes ‘why does this happen?’ and write them as a category branch (a cause can appear in multiple categories).

4. Repeat step 3 for causes until the group runs out of ideas.

Focus attention on places on the chart where ideas are few.



Fishbone Diagram Example