**Affinity Diagram** (affinity chart, K-J method)

**Description**

The affinity diagram organizes a large number of ideas into their natural relationships. This method taps a team’s creativity and intuition. It was created in the 1960s by Japanese anthropologist Jiro Kawakita.

**When to Use an Affinity Diagram**

- When you are confronted with many facts or ideas in apparent chaos
- When issues seem too large and complex to grasp
- When group consensus is necessary

**Typical situations are:**

- After a brainstorming exercise
- When analyzing verbal data, such as survey results.

**Affinity Diagram Procedure**

**Materials needed:** sticky notes or cards, marking pens, large work surface (wall, table, or floor).

1. Record each idea with a marking pen on a separate sticky note or card. (During a brainstorming session, write directly onto sticky notes or cards if you suspect you will be following the brainstorm with an affinity diagram.) Randomly spread notes on a large work surface so all notes are visible to everyone. The entire team gathers around the notes and participates in the next steps.

2. It is very important that no one talk during this step. Look for ideas that seem to be related in some way. Place them side by side. Repeat until all notes are grouped. It’s okay to have “loners” that don’t seem to fit a group. It’s all right to move a note someone else has already moved. If a note seems to belong in two groups, make a second note.

3. You can talk now. Participants can discuss the shape of the chart, any surprising patterns, and especially reasons for moving controversial notes. A few more changes may be made. When ideas are grouped, select a heading for each group. Look for a note in each grouping that captures the meaning of the group. Place it at the top of the group. If there is no such note, write one. Often it is useful to write or highlight this note in a different color.

4. Combine groups into “supergroups” if appropriate.

*(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)*
Brainstorming

Description

Brainstorming is a method for generating a large number of creative ideas in a short period of time.

When to Use Brainstorming

- When a broad range of options is desired.
- When creative, original ideas are desired.
- When participation of the entire group is desired.

Brainstorming Procedure

Materials needed: flipchart, marking pens, tape and blank wall space.

1. Review the rules of brainstorming with the entire group:
   - No criticism, no evaluation, no discussion of ideas.
   - There are no stupid ideas. The wilder the better.
   - All ideas are recorded.
   - Piggybacking is encouraged: combining, modifying, expanding others’ ideas.
2. Review the topic or problem to be discussed. Often it is best phrased as a “why,” “how,” or “what” question. Make sure everyone understands the subject of the brainstorm.
3. Allow a minute or two of silence for everyone to think about the question.
4. Invite people to call out their ideas. Record all ideas, in words as close as possible to those used by the contributor. No discussion or evaluation of any kind is permitted.
5. Continue to generate and record ideas until several minutes’ silence produces no more.

(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)
Stepladder Technique

Description

The Stepladder Technique is a simple tool that manages how members enter the decision-making group. Developed by Steven Rogelberg, Janet Barnes-Farrell and Charles Lowe in 1992, it encourages all members to contribute on an individual level BEFORE being influenced by anyone else. This results in a wider variety of ideas, prevents people from "hiding" within the group, and it helps people avoid being "stepped on" or overpowered by stronger, louder group members.

When to Use the Stepladder Technique

- When seeking a wider variety of ideas
- Allows shy, quiet people to present their ideas before other group members can influence them
- Allows everyone to hear many different viewpoints before reaching a final decision.

Stepladder Technique Procedure

The Stepladder Technique has five basic steps. Here's how it works.

Step 1: Before getting together as a group, present the task or problem to all members. Give everyone sufficient time to think about what needs to be done and to form their own opinions on how to best accomplish the task or solve the problem.

Step 2: Form a core group of two members. Have them discuss the problem.

Step 3: Add a third group member to the core group. The third member presents ideas to the first two members BEFORE hearing the ideas that have already been discussed. After all three members have laid out their solutions and ideas, they discuss their options together.

Step 4: Repeat the same process by adding a fourth member, and so on, to the group. Allow time for discussion after each additional member has presented his or her ideas.

Step 5: Reach a final decision only after all members have been brought in and presented their ideas.

(Adapted from James Manktelow's book Mind Tools, Published by Mind Tools Ltd)
**Fishbone Diagram** (Cause-and-Effect Diagram, Ishikawa Diagram)

**Description**

The fishbone diagram identifies many possible causes for an effect or problem. It can be used to structure a brainstorming session. It immediately sorts ideas into useful categories.

**When to Use a Fishbone Diagram**

- When identifying possible causes for a problem.
- Especially when a team’s thinking tends to fall into ruts.

**Fishbone Diagram Procedure**

**Materials needed:** flipchart or whiteboard, marking pens.

1. **Agree on a problem statement (effect).** Write it at the center right of the flipchart or whiteboard. Draw a box around it and draw a horizontal arrow running to it.

2. **Brainstorm the major categories of causes of the problem.** If this is difficult use generic headings:
   - Methods
   - Machines (equipment)
   - People (manpower)
   - Materials
   - Measurement
   - Environment

3. **Write the categories of causes as branches from the main arrow.**

4. **Brainstorm all the possible causes of the problem.** Ask: “Why does this happen?” As each idea is given, the facilitator writes it as a branch from the appropriate category. Causes can be written in several places if they relate to several categories.

5. **Again ask “why does this happen?” about each cause.** Write sub-causes branching off the causes. Continue to ask “Why?” and generate deeper levels of causes. Layers of branches indicate causal relationships.

6. **When the group runs out of ideas, focus attention to places on the chart where ideas are few.**

7. *(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)*
**Force Field Analysis**

**Description**

Force Field Analysis is a useful technique for looking at all the forces for and against a decision. In effect, it is a specialized method of weighing pros and cons.

**When to Use a Force Field Analysis**

- When trying to understanding the pressures for and against change
- When it is critical to strengthen the forces supporting a decision, and reduce the impact of opposition to it.

**Force Field Analysis Procedure**

1. Describe the current situation
2. Describe the desired situation
3. Identify where the current situation will go if no action is taken
4. List all the forces driving change toward the desired situation
5. List all the forces resisting change toward the desired situation
6. Discuss and interrogate all of the forces: are they valid? can they be changed? which are the critical ones?
7. Allocate a score to each of the forces using a numerical scale e.g. 1=extremely weak and 10=extremely strong
8. Chart the forces by listing (to strength scale) the driving forces on the left and restraining forces on the right.
9. Determine whether change is viable and progress can occur
10. Discuss how the change can be affected by decreasing the strength of the restraining forces or by increasing the strength of driving forces.
11. Keep in mind that increasing the driving forces or decreasing the restraining forces may increase or decrease other forces or even create new ones.

*(Based on "Kurt Lewin's article, Contribution and a summary of methodology in analyzing change)*
Relations Diagram (interrelationship diagram or digraph, network diagram)

Variation: matrix relations diagram

Description

The relations diagram shows cause-and-effect relationships. Just as importantly, the process of creating a relations diagram helps a group analyze the natural links between different aspects of a complex situation.

When to Use a Relations Diagram

- When trying to understand links between ideas or cause-and-effect relationships, such as when trying to identify an area of greatest impact for improvement.
- When a complex issue is being analyzed for causes.
- When a complex solution is being implemented.
- After generating an affinity diagram, cause-and-effect diagram or tree diagram, to more completely explore the relations of ideas.

Relations Diagram Basic Procedure

Materials needed: sticky notes or cards, large paper surface (newsprint or two flipchart pages taped together), marking pens, tape.

1. Write a statement defining the issue that the relations diagram will explore. Write it on a card or sticky note and place it at the top of the work surface.
2. Brainstorm ideas about the issue and write them on cards or notes. If another tool has preceded this one, take the ideas from the affinity diagram, the most detailed row of the tree diagram or the final branches on the fishbone diagram. You may want to use these ideas as starting points and brainstorm additional ideas.
3. Place one idea at a time on the work surface and ask: “Is this idea related to any others?” Place ideas that are related near the first. Leave space between cards to allow for drawing arrows later. Repeat until all cards are on the work surface.
4. For each idea, ask, “Does this idea cause or influence any other idea?” Draw arrows from each idea to the ones it causes or influences. Repeat the question for every idea.
5. Analyze the diagram:
   - Count the arrows in and out for each idea. Write the counts at the bottom of each box. The ones with the most arrows are the key ideas.
   - Note which ideas have primarily outgoing (from) arrows. These are basic causes.
   - Note which ideas have primarily incoming (to) arrows. These are final effects that also may be critical to address.

Be sure to check whether ideas with fewer arrows also are key ideas. The number of arrows is only an indicator, not an absolute rule. Draw bold lines around the key ideas.

(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)
**Scatter Diagram** (scatter plot, X–Y graph)

Description

The scatter diagram graphs pairs of numerical data, with one variable on each axis, to look for a relationship between them. If the variables are correlated, the points will fall along a line or curve. The better the correlation, the tighter the points will hug the line.

When to Use a Scatter Diagram

- When you have paired numerical data.
- When your dependent variable may have multiple values for each value of your independent variable.
- When trying to determine whether the two variables are related, such as...
  - When trying to identify potential root causes of problems.
  - After brainstorming causes and effects using a fishbone diagram, to determine objectively whether a particular cause and effect are related.
  - When determining whether two effects that appear to be related both occur with the same cause.
  - When testing for autocorrelation before constructing a control chart.

Scatter Diagram Procedure

1. Collect pairs of data where a relationship is suspected.
2. Draw a graph with the independent variable on the horizontal axis and the dependent variable on the vertical axis. For each pair of data, put a dot or a symbol where the x-axis value intersects the y-axis value. (If two dots fall together, put them side by side, touching, so that you can see both.)
3. Look at the pattern of points to see if a relationship is obvious. If the data clearly form a line or a curve, you may stop. The variables are correlated. You may wish to use regression or correlation analysis now. Otherwise, complete steps 4 through 7.
4. Divide points on the graph into four quadrants. If there are X points on the graph,
   - Count X/2 points from top to bottom and draw a horizontal line.
   - Count X/2 points from left to right and draw a vertical line.
   - If number of points is odd, draw the line through the middle point.
5. Count the points in each quadrant. Do not count points on a line.
6. Add the diagonally opposite quadrants. Find the smaller sum and the total of points in all quadrants.
   - A = points in upper left + points in lower right
   - B = points in upper right + points in lower left
   - Q = the smaller of A and B
   - N = A + B
7. Look up the limit for N on the trend test table.
   - If Q is less than the limit, the two variables are related.
   - If Q is greater than or equal to the limit, the pattern could have occurred from random chance.

*(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)*
Six Thinking Hats

Description

"Six Thinking Hats" is a powerful technique that helps you look at important decisions from a number of different perspectives. It helps you make better decisions by pushing you to move outside your habitual ways of thinking. As such, it helps you understand the full complexity of a decision, and spot issues and opportunities which you might otherwise not notice.

When to Use Six Thinking Hats

- When need for evaluating a decision from many points of view

Six Thinking Hats Procedure

To use Six Thinking Hats to improve the quality of your decision-making, look at the decision "wearing" each of the thinking hats in turn. Each "Thinking Hat" is a different style of thinking. These are explained below:

1. **White Hat:** With this thinking hat, you focus on the data available. Look at the information you have, and see what you can learn from it. Look for gaps in your knowledge, and either try to fill them or take account of them. This is where you analyze past trends, and try to extrapolate from historical data.
2. **Red Hat:** Wearing the red hat, you look at the decision using intuition, gut reaction, and emotion. Also try to think how other people will react emotionally, and try to understand the intuitive responses of people who do not fully know your reasoning.
3. **Black Hat:** When using black hat thinking, look at things pessimistically, cautiously and defensively. Try to see why ideas and approaches might not work. This is important because it highlights the weak points in a plan or course of action. It allows you to eliminate them, alter your approach, or prepare contingency plans to counter problems that arise.
   Black Hat thinking helps to make your plans tougher and more resilient. It can also help you to spot fatal flaws and risks before you embark on a course of action. Black Hat thinking is one of the real benefits of this technique, as many successful people get so used to thinking positively that often they cannot see problems in advance, leaving them under-prepared for difficulties.
4. **Yellow Hat:** The yellow hat helps you to think positively. It is the optimistic viewpoint that helps you to see all the benefits of the decision and the value in it, and spot the opportunities that arise from it.
   Yellow Hat thinking helps you to keep going when everything looks gloomy and difficult.
5. **Green Hat:** The Green Hat stands for creativity. This is where you can develop creative solutions to a problem. It is a freewheeling way of thinking, in which there is little criticism of ideas. A whole range of creativity tools can help you here.
6. **Blue Hat:** The Blue Hat stands for process control. This is the hat worn by people chairing meetings.
   When running into difficulties because ideas are running dry, they may direct activity into Green Hat thinking. When contingency plans are needed, they will ask for Black Hat thinking, and so on.

You can use Six Thinking Hats in meetings or on your own. In meetings it has the benefit of defusing the disagreements that can happen when people with different thinking styles discuss the same problem. A similar approach is to look at problems from the point of view of different professionals (e.g. doctors, architects, sales directors) or different customers.

(Adapted from Edward de Bono’s book, 6 Thinking Hats, published by Back Bay Books).
SWOT Analysis

Description

SWOT Analysis is a powerful technique for understanding your Strengths and Weaknesses, and for looking at the Opportunities and Threats you face.

When to Use SWOT

- When need to easily uncover opportunities that you are well placed to exploit
- When it’s critical to understand the weaknesses of your business in order to manage and eliminate threats that would otherwise catch you unaware.
- When there’s a need to craft a strategy that helps you distinguish yourself from your competitors, so that you can compete successfully in your market.

SWOT Procedure

To carry out a SWOT Analysis, answer the following questions:

**Strengths:**

- What advantages does your company have?
- What do you do better than anyone else?
- What unique or lowest-cost resources do you have access to?
- What do people in your market see as your strengths?
- What factors mean that you "get the sale"?

Consider this from an internal perspective, and from the point of view of your customers and people in your market. Be realistic: It’s far too easy to fall prey to "not invented here syndrome". (If you are having any difficulty with this, try writing down a list of your characteristics. Some of these will hopefully be strengths!)

In looking at your strengths, think about them in relation to your competitors - for example, if all your competitors provide high quality products, then a high quality production process is not a strength in the market, it is a necessity.

**Weaknesses:**

- What could you improve?
- What should you avoid?
- What are people in your market likely to see as weaknesses?
- What factors lose you sales?

Again, consider this from an internal and external basis: Do other people seem to perceive weaknesses that you do not see? Are your competitors doing any better than you? It is best to be realistic now, and face any unpleasant truths as soon as possible.

**Opportunities:**
Where are the good opportunities facing you?
What are the interesting trends you are aware of?

Useful opportunities can come from such things as:

- Changes in technology and markets on both a broad and narrow scale
- Changes in government policy related to your field
- Changes in social patterns, population profiles, lifestyle changes, etc.
- Local events

A useful approach for looking at opportunities is to look at your strengths and ask yourself whether these open up any opportunities.

Alternatively, look at your weaknesses and ask yourself whether you could create opportunities by eliminating them.

**Threats:**

- What obstacles do you face?
- What is your competition doing that you should be worried about?
- Are the required specifications for your job, products or services changing?
- Is changing technology threatening your position?
- Do you have bad debt or cash-flow problems?
- Could any of your weaknesses seriously threaten your business?

Carrying out this analysis will often be illuminating - both in terms of pointing out what needs to be done, and in putting problems into perspective.

**Strengths** and **weaknesses** are often internal to your organization. **Opportunities** and **threats** often relate to external factors. For this reason the SWOT Analysis is sometimes called Internal-External Analysis and the SWOT Matrix is sometimes called an IE Matrix Analysis Tool.

You can also apply SWOT Analysis to your competitors. As you do this, you'll start to see how and where you should compete against them.

*(Adapted from James Manktelow's book Mind Tools, Published by Mind Tools Ltd)*
**Tree Diagram** (systematic diagram, tree analysis, analytical tree, hierarchy diagram)

Description

The tree diagram starts with one item that branches into two or more, each of which branch into two or more, and so on. It looks like a tree, with trunk and multiple branches.

It is used to break down broad categories into finer and finer levels of detail. Developing the tree diagram helps you move your thinking step by step from generalities to specifics.

When to Use a Tree Diagram

- When an issue is known or being addressed in broad generalities and you must move to specific details, such as when developing logical steps to achieve an objective.
- When developing actions to carry out a solution or other plan.
- When analyzing processes in detail.
- When probing for the root cause of a problem.
- When evaluating implementation issues for several potential solutions.
- After an affinity diagram or relations diagram has uncovered key issues.
- As a communication tool, to explain details to others.

Tree Diagram Procedure

1. Develop a statement of the goal, project, plan, problem or whatever is being studied. Write it at the top (for a vertical tree) or far left (for a horizontal tree) of your work surface.
2. Ask a question that will lead you to the next level of detail. For example:
   - For a goal, action plan or work breakdown structure: “What tasks must be done to accomplish this?” or “How can this be accomplished?”
   - For root-cause analysis: “What causes this?” or “Why does this happen?”
   - For gozinto chart: “What are the components?” (Gozinto literally comes from the phrase “What goes into it?”)

   Brainstorm all possible answers. If an affinity diagram or relationship diagram has been done previously, ideas may be taken from there. Write each idea in a line below (for a vertical tree) or to the right of (for a horizontal tree) the first statement. Show links between the tiers with arrows.

3. Do a “necessary and sufficient” check. Are all the items at this level necessary for the one on the level above? If all the items at this level were present or accomplished, would they be sufficient for the one on the level above?
4. Each of the new idea statements now becomes the subject: a goal, objective or problem statement. For each one, ask the question again to uncover the next level of detail. Create another tier of statements and show the relationships to the previous tier of ideas with arrows. Do a “necessary and sufficient check” for each set of items.
5. Continue to turn each new idea into a subject statement and ask the question. Do not stop until you reach fundamental elements: specific actions that can be carried out, components that are not divisible, root causes.
6. Do a “necessary and sufficient” check of the entire diagram. Are all the items necessary for the objective? If all the items were present or accomplished, would they be sufficient for the objective?
Cost/Benefit Analysis (CBA)

Description

You may have been intensely creative in generating solutions to a problem, and rigorous in your selection of the best one available. However, this solution may still not be worth implementing, as you may invest a lot of time and money in solving a problem that is not worthy of this effort.

When to Use CBA

- When cost is a factor in whether or not to proceed with a project

CBA Procedure

Cost Benefit Analysis or cba is a relatively simple and widely used technique for deciding whether to make a change. As its name suggests, you simply add up the value of the benefits of a course of action, and subtract the costs associated with it.

Costs are either one-off, or may be ongoing. Benefits are most often received over time. We build this effect of time into our analysis by calculating a payback period. This is the time it takes for the benefits of a change to repay its costs. Many companies look for payback on projects over a specified period of time e.g. three years.

In its simple form, cost-benefit analysis is carried out using only financial costs and financial benefits. For example, a simple cost benefit ratio for a road scheme would measure the cost of building the road, and subtract this from the economic benefit of improving transport links. It would not measure either the cost of environmental damage or the benefit of quicker and easier travel to work.

A more sophisticated approach to building a cost benefit models is to try to put a financial value on intangible costs and benefits. This can be highly subjective - is, for example, a historic water meadow worth $25,000, or is it worth $500,000 because of its environmental importance? What is the value of stress-free travel to work in the morning?

These are all questions that people have to answer, and answers that people have to defend.

(Adapted from Richard Brealey and Stewart Myers’ book Principles of Corporate Finance published by McGraw Hill)
**Dots Technique** (Multi-voting, NGT voting, nominal prioritization)

Description

Dots Technique narrows a large list of possibilities to a smaller list of the top priorities or to a final selection. Dots Technique is preferable to straight voting because it allows an item that is favored by all, but not the top choice of any, to rise to the top.

When to Use Dots Technique

- After brainstorming or some other expansion tool has been used to generate a long list of possibilities.
- When the list must be narrowed down, and.
- When the decision must be made by group judgment.

Dots Technique Procedure

Materials needed: flipchart or whiteboard, marking pens, colored stick on dots.

1. Display the list of options. Combine duplicate items. Affinity diagrams can be useful to organize large numbers of ideas and eliminate duplication and overlap. List reduction may also be useful.
2. Number (or letter) all items.
3. Decide how many items must be on the final reduced list. Decide also how many choices each member will vote for. Usually, five choices are allowed. The longer the original list, the more votes will be allowed, up to 10.
4. Working individually, each member sticks five dots (or whatever number of choices is allowed) on the items he or she thinks most important. (Variations include allowing different color dots to be worth more weight than others, or allowing a person to put more than one dot on a particular item if he or she feels that it is extremely important)
5. Tally votes and see which items are viewed as most important

*(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)*
**Nominal Group Technique (NGT)**

**Description**

Nominal group technique (NGT) is a structured method for group brainstorming that encourages contributions from everyone.

**When to Use Nominal Group Technique**

- When some group members are much more vocal than others.
- When some group members think better in silence.
- When there is concern about some members not participating.
- When the group does not easily generate quantities of ideas.
- When all or some group members are new to the team.
- When the issue is controversial or there is heated conflict.

**Nominal Group Technique Procedure**

**Materials needed:** paper and pen or pencil for each individual, flipchart, marking pens, tape.

1. State the subject of the brainstorming. Clarify the statement as needed until everyone understands it.
2. Each team member silently thinks of and writes down as many ideas as possible in a set period of time (5 to 10 minutes).
3. Each member in turn states aloud one idea. Facilitator records it on the flipchart.
   - No discussion is allowed, not even questions for clarification.
   - Ideas given do not need to be from the team member’s written list. Indeed, as time goes on, many ideas will not be.
   - A member may “pass” his or her turn, and may then add an idea on a subsequent turn.

   Continue around the group until all members pass or for an agreed-upon length of time.

4. Discuss each idea in turn. Wording may be changed only when the idea’s originator agrees. Ideas may be stricken from the list only by unanimous agreement. Discussion may clarify meaning, explain logic or analysis, raise and answer questions, or state agreement or disagreement.
5. Prioritize the ideas using multivoting or list reduction.

*(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)*
**Pareto Analysis** (Pareto diagram, Pareto Chart)

Description

A Pareto chart is a bar graph. The lengths of the bars represent frequency or cost (time or money), and are arranged with longest bars on the left and the shortest to the right. In this way the chart visually depicts which situations are more significant.

When to Use a Pareto Chart

- When analyzing data about the frequency of problems or causes in a process.
- When there are many problems or causes and you want to focus on the most significant.
- When analyzing broad causes by looking at their specific components.
- When communicating with others about your data.

Pareto Chart Procedure

1. Decide what categories you will use to group items.
2. Decide what measurement is appropriate. Common measurements are frequency, quantity, cost and time.
3. Decide what period of time the Pareto chart will cover: One work cycle? One full day? A week?
4. Collect the data, recording the category each time. (Or assemble data that already exist.)
5. Subtotal the measurements for each category.
6. Determine the appropriate scale for the measurements you have collected. The maximum value will be the largest subtotal from step 5. (If you will do optional steps 8 and 9 below, the maximum value will be the sum of all subtotals from step 5.) Mark the scale on the left side of the chart.
7. Construct and label bars for each category. Place the tallest at the far left, then the next tallest to its right and so on. If there are many categories with small measurements, they can be grouped as “other.”

Steps 8 and 9 are optional but are useful for analysis and communication.

8. Calculate the percentage for each category: the subtotal for that category divided by the total for all categories. Draw a right vertical axis and label it with percentages. Be sure the two scales match: For example, the left measurement that corresponds to one-half should be exactly opposite 50% on the right scale.
9. Calculate and draw cumulative sums: Add the subtotals for the first and second categories, and place a dot above the second bar indicating that sum. To that sum add the subtotal for the third category, and place a dot above the third bar for that new sum. Continue the process for all the bars. Connect the dots, starting at the top of the first bar. The last dot should reach 100 percent on the right scale.

*(Adapted from Nancy R. Tague’s book The Quality Toolbox, Published by ASQ Quality Press)*
**PMI (Plus/Minus/Interesting)**

**Description**

PMI is a valuable improvement to the 'weighing pros and cons' technique used for centuries.

**When to Use a PMI**

- When selecting a course of action from a range of options
- When evaluating whether we can actually improve the situation (it may actually be best to do nothing!)

**PMI Procedure**

In the column underneath 'Plus', write down all the positive results of taking the action. Underneath 'Minus' write down all the negative effects. In the 'Interesting' column write down the implications and possible outcomes of taking the action, whether positive, negative, or uncertain.

By this stage it may already be obvious whether or not you should implement the decision. If it is not, consider each of the points you have written down and assign a positive or negative score to it appropriately. The scores you assign may be quite subjective.

Once you have done this, add up the score. A strongly positive score shows that an action should be taken, a strongly negative score that it should be avoided.

*(Excerpted from James Manktelow’s book Mind Tools, Published by Mind Tools Ltd)*