

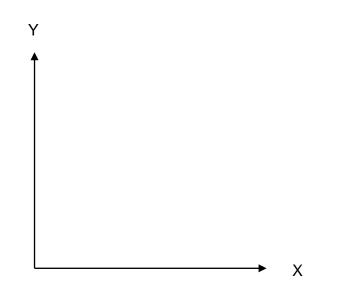
CHANGE TOOLKIT

Tool: Morphological Analysis

What is it?

Morphological analysis sounds complicated, but is actually a simple technique for generating lots of ideas quickly. It provides a structured framework to help you create ideas centred on a particular issue. At its most basic, it involves using a matrix to create ideas.

For example, you might have a matrix with two axes. Each axis has ten items on it. If you combine each idea on the x axis with each idea on the y axis, you end up with 100 combinations of items or ideas (10×10).



If you make the matrix a cube (in three dimensions), you add another axis of ten items and so get a combination of a thousand ideas or items ($10 \times 10 \times 10$). Add yet another dimension and the multiplying effect continues.

Why use it in a change process?

Morphological analysis is helps you to create lots of different ideas. As such, it is helpful to use during the **Gain Entry / Fact Find** and **Generate Options** stages of the change process.

In **Gain Entry / Fact Find** you can use it to identify things that are not working as well as they could be by considering alternatives.

In **Generate Options**, you can use it to help managers and staff think of lots of ideas about how they can manage aspects of the change process and how they can do things differently.

What do I need to do?

1. Ensure that you have clearly identified the problem that needs to be resolved. For example:

GE-FF-009-Morphological-Analysis.doc

Used in: GAIN ENTRY FACT FIND Also good for: GENERATE OPTIONS

My Notes



- 1. A firm manufacturing umbrellas wants to extend its range into more specialised and unusual products. The company is searching for new ideas.
- 2. Pull together a representative and relevant group of people.
- 3. Identify suitable categories to use on each axis, bearing in mind that you want to create options and opportunities rather than identify an immediate solution.
- 4. In this case, the axes could be 'utilities' (the extra features customers might value which could be built into an umbrella) and 'location' (places or situations in which the umbrella might be used). If these axes were chosen, the matrix might look like this:

| Utilities | Flask | Calculator | Radio | Anti-attack alarm | Alarm clock | Compass | Telescope | Battery- operated fan | Camera | Toolkit | Storage compartment |
|------------------|-------|------------|-------|----------------------|-------------|---------|-----------|--------------------------|--------|---------|------------------------|
| Journeys to work | | | | | | | | | | • | |
| Golf courses | | | | | | | | | | | |
| Cricket matches | | | | | | | | | | | |
| School sports | | | | | | | | | | | |
| Walking holidays | | | | | | | | | | | |
| Horse races | | | | | | | | | | | |
| Air shows | | | | | | | | | | | |
| Gardens or parks | | | | | | | | | | | |
| Tennis matches | | | | | | | | | | | |
| Cities | | | | | | | | | | | |
| Beach holidays | | | | | | | | | | | |

- 5. This example shows a matrix of 11 x 11 = 121 items, and you could add many more items if you wanted to.
- 6. Creating such a large pool of options means that it will be easier for you to find one or two that are worth exploring further.
- 7. The same technique applies if you use three axes.

*Reproduced with thanks to: Heywood Williams Group PLC, Management Development Programme