Fishbone cause and effect tool

Benefits at a glance….

- a visual tool for stimulating thinking about possible problem causes
- create a snapshot of the team's collective knowledge and see all of the causes simultaneously
- it broadens your understanding of a problem

What is it?

The **Fishbone** tool helps you to articulate the possible causes of a problem. The associated diagram (shown below) is also known as the *Ishikawa* or *cause-and-effect* diagram.

When to use it?

When trying to uncover all potential causes of a problem. Fishbone is particularly useful when problems may occur as a result of a number of different reasons or situations: the analysis allows you to explore the problem in order to make sure all possibilities have been explored rather than just the most urgent or obvious …

You can use it individually to help clarify your thinking or with a team in a meeting as a way of uncovering and agreeing all potential problem causes in order to then prioritise which to focus on.

The **Fishbone** tool can be used on its own or as part of the ***Creative Problem Solving (CPS)*** process.

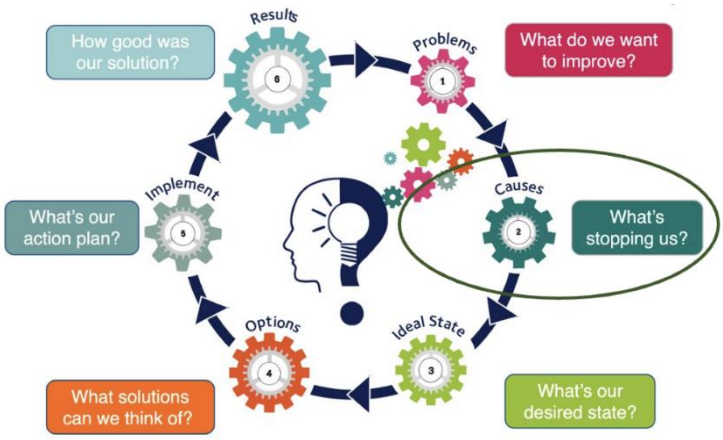

Figure 1: The Creative Problem Solving (CPS) process

How to use it?

Caution: *Avoid looking for solutions at this stage as a solution may just seek to deal with the symptom without tackling the problem.*

Aim to construct your **Fishbone** diagram with those who have hands-on experience of the problem or issue. If at all possible, ***Go See*** beforehand to identify potential causes. Then, in a group (either face-to-face or virtually):

1. Brainstorm the potential categories in which to group the causes.

2. Create the Fishbone diagram: the ***problem statement*** is the 'head' of your fish: draw an arrow pointing to the 'head'. Draw 4 or more 'bones' as branches of the arrow. Label each 'bone' with a category.

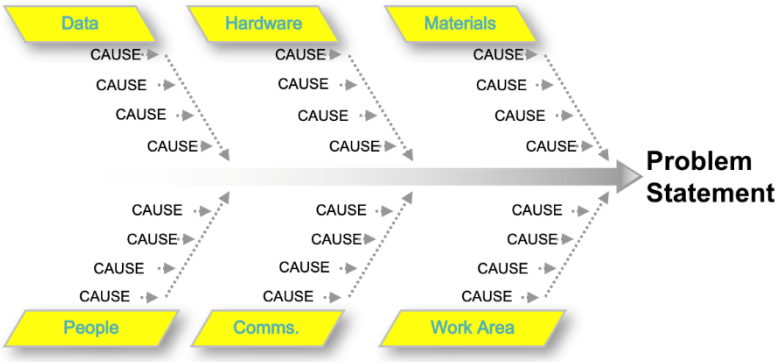

Figure 2: A fishbone diagram skeleton with each 'bone' labelled with a category

3. Working through each problem category, brainstorm or gather all potential causes. Capture each potential cause around each 'bone' in a systematic way and discuss. Some causes may have sub-causes – capture these as further branches off the main problem branch.

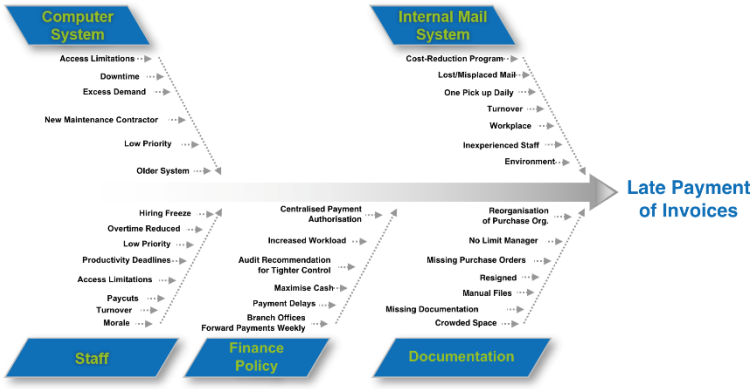

Figure 3: Place each potential cause around the relevant category 'bone'

4. Discuss your completed diagram and prioritise which causes to explore in depth. Where necessary you can use ***5 Whys*** analysis to drill down to the root cause.

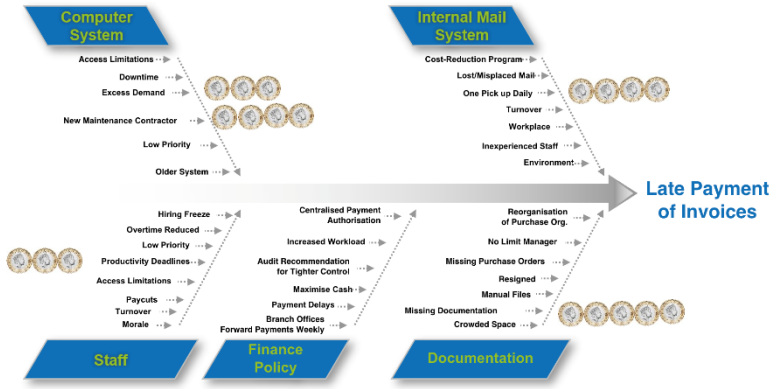

Figure 4: Prioritise the causes to explore in depth

Tip: *Your problem may have specific problem categories, but a useful starting point is to consider Environment, Equipment, People and Processes*

'It's so much easier to suggest solutions when you don't know too much about the problem'

Malcolm Forbes, publisher and entrepreneur