

# FISHBONE (ISHIKAWA) DIAGRAM

The fishbone diagram is for sorting ideas into categories and it can be used for structuring a brainstorming session. This cause analysis tool is considered one of the seven basic quality tools. The fishbone diagram identifies many possible causes for an effect or problem.

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FORMAT Method TIMEFRAME 1 - 2 hours GROUP SIZE

FACILITATION LEVEL

REQUIRED MATERIALS Pen and paper, Post its

# **STEPS**

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.

Brainstorm the major categories of causes of the problem. If this is difficult use generic headings.

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

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.

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.

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

## Benefits

The Fishbone diagram can be used to structure a brainstorming session. It immediately sorts ideas into useful categories.

### Tips

Follow the process step by step – do not rush into a presumed root cause. Make a clear division of the causes of problems and the symptoms of the problem. Focus on long-term solutions/

#### Sources

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1. ASQ

2. IHS

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