

FISHBONE DIAGRAM

DESCRIPTION

A Fishbone (Cause-and-Effect) Diagram is a tool used to help identify the root causes to a problem. Causes are grouped into major categories to help identify sources of variation. It helps a team review the issue and consider multiple possibilities to a problem before identifying solutions.

Common categories to consider include:

- Machines (equipment)
- Methods (how work is done)
- Measurements (data generated)
- Materials (forms, job aids, parts, raw material)
- Environment (location, culture)
- People (involved in the process)

STRENGTHS

Allows a team to look at all possible causes to a problem rather than jumping to a conclusion. It enables users to focus on the true cause of the issue.

WEAKNESSES

Can possibly link causes to a problem that do not contribute to the problem. In addition, it can contain more detail than most problems require.

APPLICATIONS

1. Root cause analysis.
2. Team needs help with brainstorming efforts.

HELPFUL HINTS

To construct a Fishbone diagram:

1. Assemble a team of individuals from all affected sections of the process to ensure a wide range of possible causes for the problem are considered.
2. Draw a large arrow pointing to the problem with the branches off the arrow representing main categories or possible causes.
3. Record the problem statement at the “nose” of the diagram or along the main bone.
4. Use brainstorming techniques to identify possible causes. Causes can be related to several categories.
5. Review all causes with the team to determine the most likely cause for the problem.

EXAMPLES

