

# Cause-and-Effect Diagram



## Definition

Also known as a Fishbone or Ishikawa Diagram, a Cause-and-Effect Diagram is a picture of many system elements (causes) that may contribute to a problem (effect). It is organized output from a Brainstorming session concerning "what causes . . . ?"

## Utility

A Cause-and-Effect Diagram is useful whenever root causes of a problem need to be identified to find effective solutions. It allows a group to organize many ideas around a central theme of effect. Cause-and-Effect Diagrams help teams locate both special and common causes of variation.

## Construction

1. Name the problem or effect the team will be analyzing.
2. Record the statement for all to see.
3. Draw and label the main bones by category. Typical categories may be people, methodology, curriculum, materials, assessment, and others.
4. Ask the team to Brainstorm likely causes (follow rules for Brainstorming).
5. Record all ideas on the chart under the logical category or categories, if a cause fits under more than one category.
6. Ask the team, through consensus, to identify the most likely (root) causes, or work through a Relations Diagram.

