Which Problem Solving Tool?

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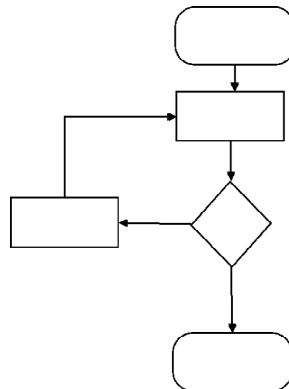
There are a number of valuable problem solving tools available. Not all of them are applicable in all circumstances and it can be difficult to judge which to use when and it is even harder to use them effectively. Some problem solving tools include:

Flowchart / Process Map

A method for showing the logical progression of actions or systems. It is used prior to taking any action: it defines the process to be followed. For example, it may be used following an audit to investigate non-conformances.

Is / Is Not Analysis

A method for clarifying problems and issues, particularly useful where the symptom is clear, but the problem is not. It is used to identify problems and the scope of the problems found, as well as to eliminate unrelated issues.

Tally Charts / Location Maps

A method for collecting data in a reliable, organized way. It is used at any time when data is needed.

Pareto

A ranking system that is essentially a special type of bar chart. After data has been gathered, pareto can help to identify which problems are the most significant or which areas have shown the most improvement. If used on a regular basis, changes in ranking can be useful information.

Brainstorming

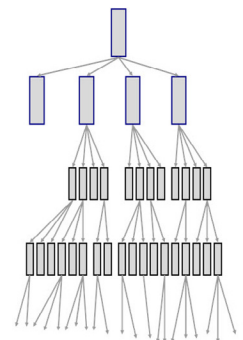A method for encouraging divergent thinking. Structured brainstorming is done with rules to remove the fear of ridicule or failure. It is used to identify possible causes, possible actions and in general, whenever an issue is confused or a new approach is needed.

Cause and Effect Diagram

A method for grouping ideas and causes, it can be used to identify the structure and causes of an effect. It is useful for grouping causes together; it can show where action may influence more than one cause; it can be used to identify possibilities outside the cause chain.
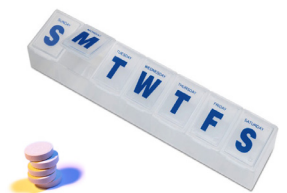
5 Why

A method to find out the true causes of problems and to determine logical cause chains. It is useful when identifying causes (direct, contributing and root cause/s).

Mistake Proofing

A concept of designing parts and systems so that mistakes cannot occur; mistakes are more difficult to make; and mistakes can be detected more easily. It is used for clarifying corrective actions.