### Cause and Effect Analysis

#### What is it?
- It’s a diagram that demonstrates the relationship between effects and the categories of their causes.
- The arrangement of the diagram looks like a fishbone, it is therefore also called a fish-bone diagram.

#### What does it achieve?
Cause and Effect Analysis enables you to identify the possible cause affecting or creating a project or problem. A cause and effect diagram is a quick and visually effective way of exploring a problem or opportunity with some vigour.

#### How to use it?
- Determine the Effect or Problem you would like to examine.
- Categorize the possible causes.
- Find subcategories.
- Describe the possible causes.

#### When to use it?
- Root Cause Analysis.
- Problem Exploration.
- Defining a problem.
- Identifying possible data requirements.
- Developing objectives for solutions.
- Narrowing down causes.

#### Diagram Layout

![Diagram Layout](image)

#### Suggested Headings

<table>
<thead>
<tr>
<th>PEMP</th>
<th>FEMPEP</th>
<th>Your Own Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>Facilities</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td>Processes</td>
<td>People</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Processes</td>
<td></td>
</tr>
</tbody>
</table>
Using the Headings

Diagramming Tip

Use paper landscape and put major cause boxes close to the edge to leave maximum room for the diagram

Example

– Allow team members to specify where ideas fit into the diagram. Use their words
– Clarify the meaning of each idea using the group to refine the ideas.

Look for Underlying Root Cause

Many factors can contribute to shipping problems
One problem out of spec is enough
We don’t know what the specs are
There is no controlled process to ensure shipping happens correctly
We haven’t mapped and don’t manage our own processes