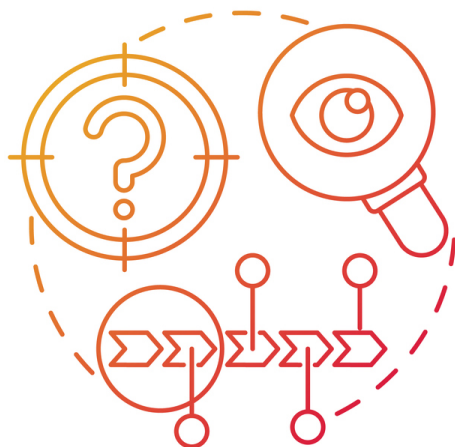


Root Cause Analysis Tools

A guide to help you conduct a more organized, effective root cause analysis



ROOT CAUSE ANALYSIS

What's an RCA?

Root Cause Analysis, or RCA is the process of identifying the underlying cause of an issue or problem. A root cause is a factor without which a problem would not have occurred.

Conducting an RCA as a team ensures you eliminate the underlying cause of a nonconformance, rather than addressing a symptom, and reduces your risk of future incidents.

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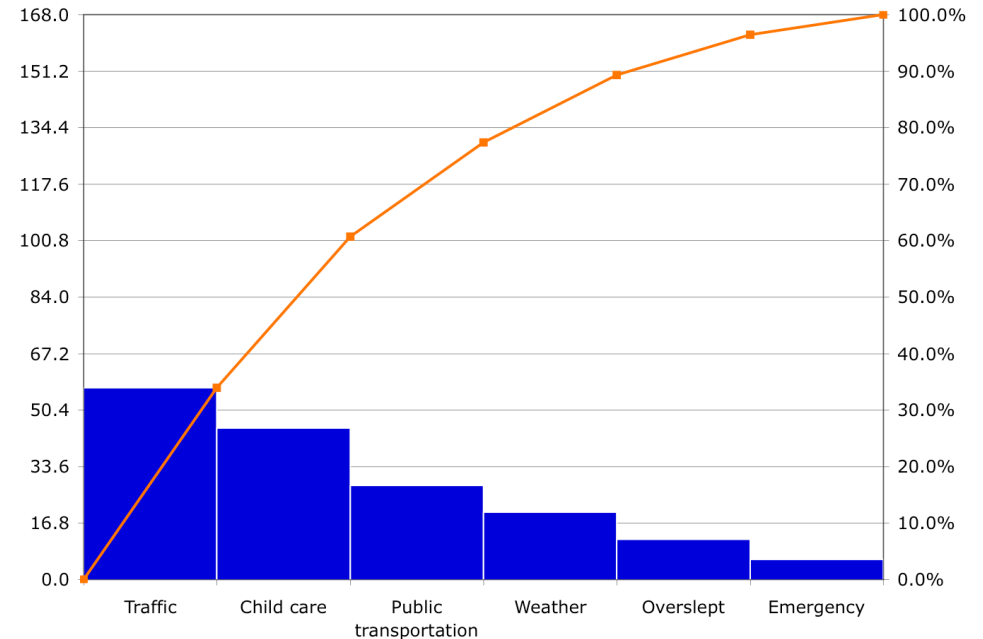
1

Pareto Analysis

STEPS

- List the causes of the problem you're analyzing
- Gather data on how often each cause leads to the issue over a certain time period
- Organize these causes from highest to lowest frequency on a bar graph
- Calculate the cumulative percentage (i.e. if Cause 1 is 25% and Cause 2 is 10%, Cause 2's cumulative percentage is 35%)
- Root causes are those that make up, cumulatively, 80% of problems

Pareto Chart of Late Arrivals by Reported Cause

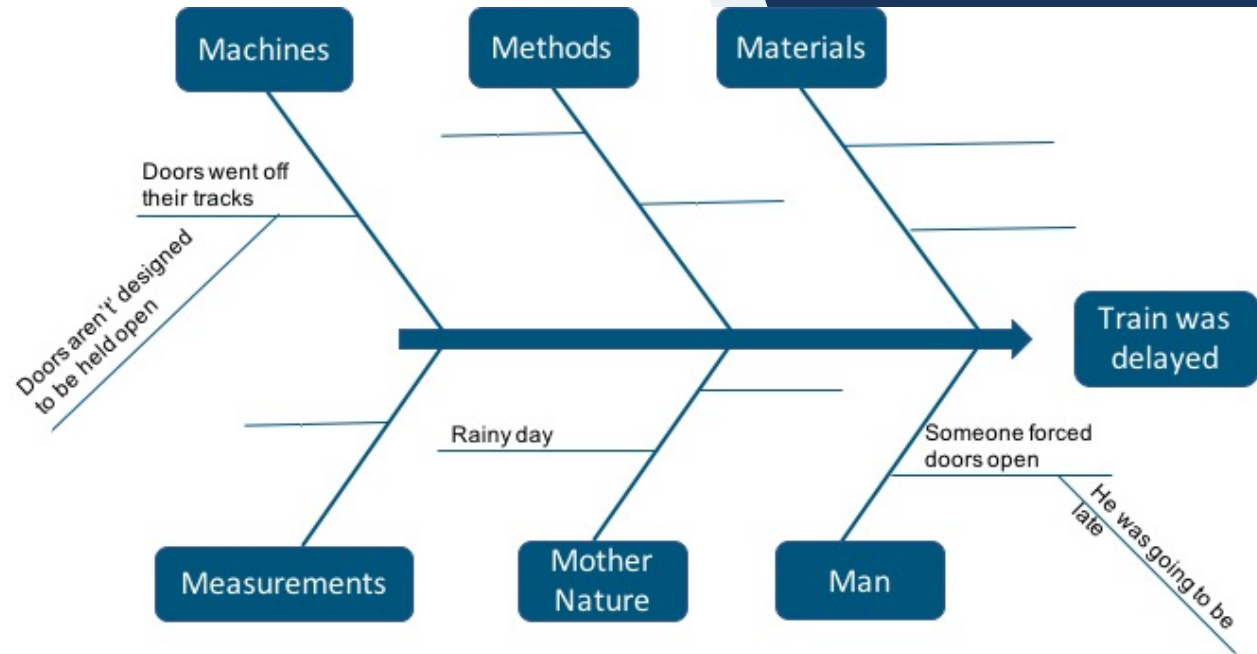


2

Ishikawa (Fishbone) Diagram

STEPS

- Clearly define the problem or effect
- Think of categories the causes could fall into or use those on the sample diagram
- Brainstorm possible causes and sort them into the appropriate categories
- You can also ask why each of *these* causes happen and list answers on the smaller branches
- Vote for the top 3 root causes and address those

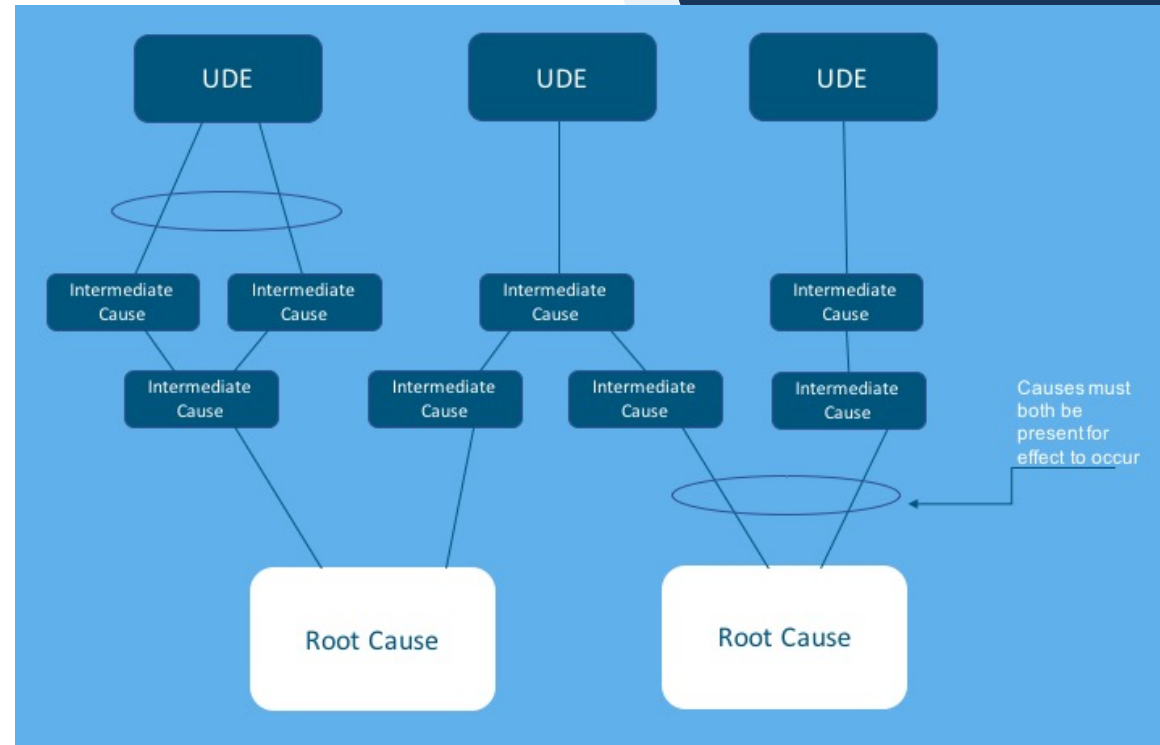


3

Current Reality Tree

STEPS

- Define the scope of the problem (e.g. workplace computer network isn't working)
- List undesirable effects (UDEs) (e.g. internet is slow, error messages)
- Create chains of causes and effects by determining IF both these causes are present, THEN this effect happens
- Read tree from top to bottom, then bottom to top to see if it makes sense
- Build a future reality tree to determine corrective action plan



4

The 5 Why's Method

STEPS

- Define the problem to determine the scope
- Choose a leader to ask why each cause occurred (around 5 times) until you reach a root cause
- Sometimes you'll find more than one root cause, with multiple "why" branches
- Address the root causes
- Report and review corrective actions to make sure they're working as planned

