

Guide: Root Cause Analysis



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Root Cause Analysis

Introduction

When probing evidence, seeking insights, identifying problems and understanding populations, why is always a good question to ask. This section introduces you to formal tools that support you to ask why, tools that will help you to conduct a root cause analysis and develop a deeper understanding of needs.

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Root Cause Analysis (RCA) is a tool to support analysis, often where there is a problem and a need to identify the cause (or causes) of the problem. It can be used to drive effectiveness and efficiency or investigate incidents or accidents. For example, in aviation, RCA is a vital tool for investigating an incident and is used to examine layers of evidence to establish a cause or causes of an incident and the UK Civil Aviation Authority (CAA) RCA makes it a regulatory requirement for issues affecting airworthiness. Specifically focused on identifying a causal chain and corrective and preventive actions.

You might also be familiar with it as part of effectiveness and efficiency programs like Lean, Kaizen or Six Sigma, where it is a tool to understand how to improve a process, with clear overlaps with incremental and lean innovation. RCA is not confined to engineering or technical challenges associated with production processes, what we call hard (technical) systems. It is also common in soft (people) systems.

For example, work into health inequalities conducted for the World Health Organisation by Marmot into the Social Determinants of Health developed a model of health by investigating the causes the causes of the causes of poor health. Asking about the causes of the causes takes the inquiry into wider social issues spanning from individual or lifestyle factors into social and community factors to living and working conditions and the general social, economic and environmental conditions.

As a process, it is a useful way to examine complex problems, understand who experiences them and explore outcomes. It is a useful way for analysing evidence as you identify refine and develop your needs. We can facilitate an internal analysis session with you through EBNWorks.