

Root cause analysis: Five whys

What is it and how can it help me?

By repeatedly asking the question 'why?' (use five as a rule of thumb), you can peel away the layers of an issue, which can lead you to the root cause of a problem. The reason for a problem can often lead into another question; you may need to ask the question fewer or more than five times before you get to the origin of a problem. The real key is to avoid assumptions and logic traps and encourage the team to keep drilling down to the real root cause.



When does it work?

By quickly identifying the source of an issue or problem, you can focus resources in the correct areas and ensure you are tackling the true cause of the issue, not just its symptoms.

How to use it

- Write down the specific problem. Writing it down helps you formalise the problem and describe it accurately. It also helps a team focus on the same problem.
- Use brainstorming to ask why the problem occurs, then write the answer down.
- If the answer doesn't identify the source of the problem, ask 'why?' again and write the answer down.
- Loop back to the previous step until the team agrees that they have identified the problem's root cause. This may take fewer or more than five whys.

The five whys can be used independently or as a part of a cause and effect diagram. This helps you explore all potential or real causes which result in a problem. Once you have established all the inputs on the cause and effect diagram, you can use the five whys technique to drill down to the root causes.

Tips

Moving into 'fix-it' mode too quickly might mean dealing with symptoms but leaving the problem unresolved, so use the five whys to ensure that the cause of the problem is being addressed. If you don't ask the right questions, you don't get the right answers.

Five whys example

- The patient was late in theatre, it caused a delay
- There was a long wait for a trolley
- A replacement trolley had to be found
- The original trolley's safety rail was worn and had eventually broken
- It has not been regularly checked

Example

To establish why a patient was late in theatre, the five questions in the box were asked.

The route cause: There was no equipment maintenance schedule.

Setting up a proper maintenance schedule helps ensure that patients should never again be late due to faulty equipment. This reduces delays and improves flow. If you simply repair the trolley or do a one-off safety rail check, the problem may happen again sometime in the future.