

5 Whys (Root Cause Analysis)

Problem

How to find a problem's root cause?

Difficulty

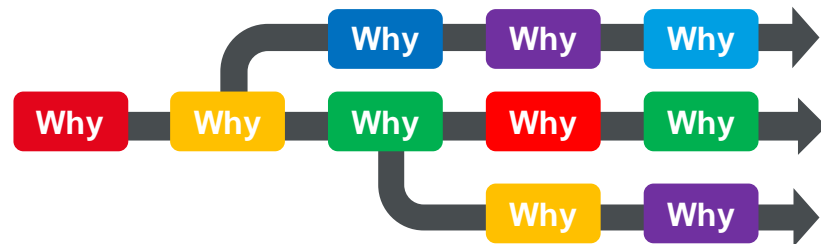
Easy to use

- The “**5 Whys**” technique is a simple & fast way to determine the root cause(s) of a problem.
- The question “Why?” is repeatedly asked, starting at the problem statement. The process stops when the results are not actionable; this often occurs after 5 “Why?” steps.

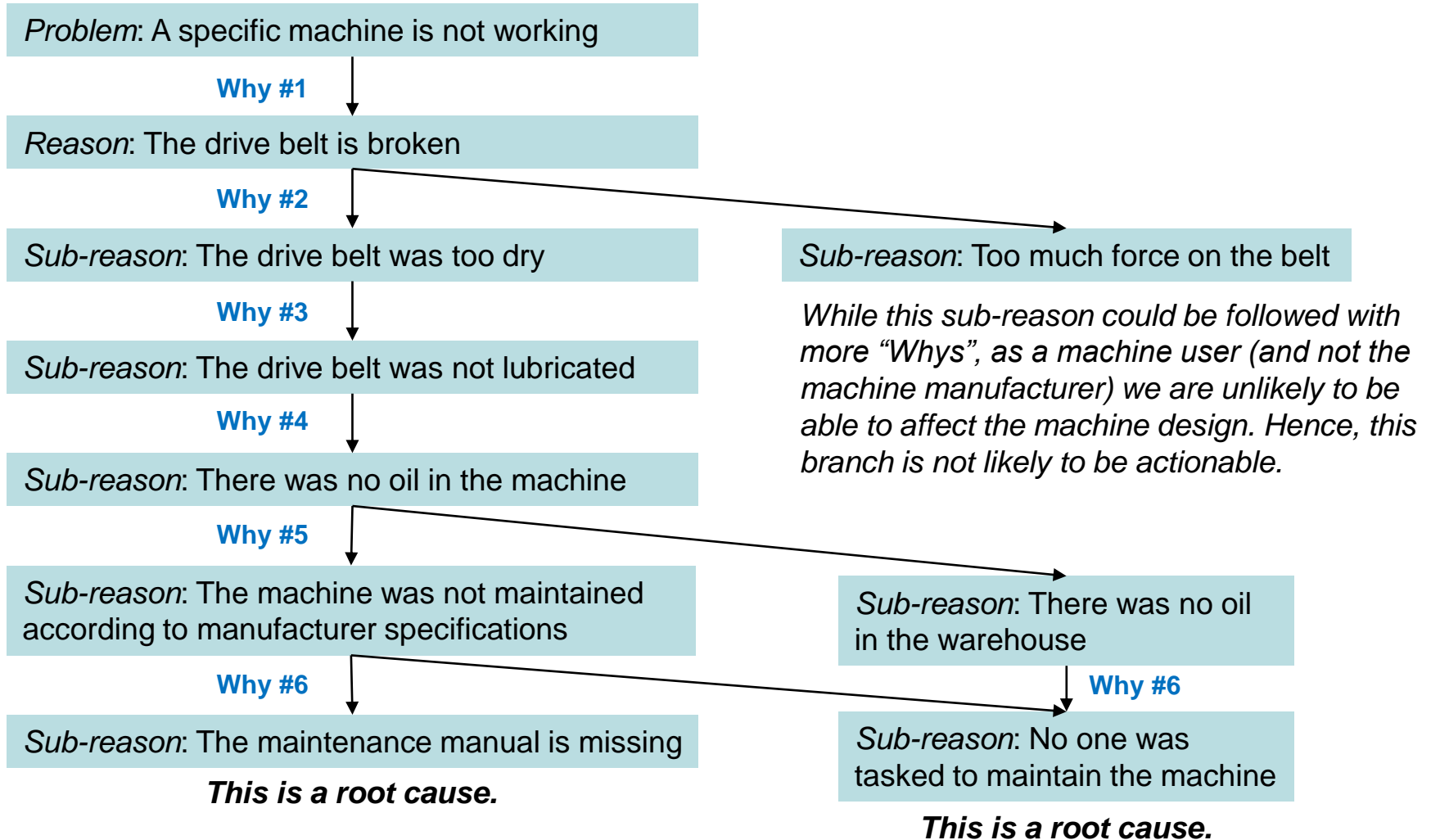


1. Ensure the problem is clearly articulated.
2. Ask “Why did the problem occur?” There may be several reasons.
3. For each of the reasons, ask “Why?”; each may have several reasons.
4. Continue asking “Why?” until the reasons are no longer actionable.
5. The lowest level reasons that are actionable are the *root causes*. If these are addressed then the problem should be resolved (or mitigated).

Problem	Reason(s)
Why #1: Why did that problem occur?	←
Why #2: What did THAT occur?	←
Why #3: What did THAT occur?	←
Why #4: What did THAT occur?	←
Why #5: What did THAT occur?	←
Potential Root Cause(s)	←



5 Whys – Example – Broken machine



5 Whys – Notes

Slide 1

1. A 5 Whys analysis can be performed by a single person or a team.
2. A 5 Whys analysis is best done using sticky notes, so they can be re-arranged as needed.
3. It is *never* the case that “lack of <something>” is a root cause. There is always a reason why a specific thing did not occur.
4. Be careful with cause and effect. Each lower level reason, if mitigated, should mitigate the higher level reason from which it is derived.
5. It may not take “5 Whys” to get to root cause, it may only take 4 Whys or it may take 6 or more Whys.

Slide 2

1. Note that some branches can/should be pruned when they are not actionable.
2. Note that the “lack of oil” is not a root cause. In this case, it is flowed down to “not maintained ...” & “no one tasked ...”