

5WHY Process Description

5 WHY is a simple, effective tool for uncovering the root cause of a problem. A root cause can be defined as the core reason an abnormal or non-conforming situation occurred. 5WHY can be used in troubleshooting, problem-solving, and quality-improvement initiatives. The purpose behind a 5-why analysis is to get the right people discussing all the possible root causes of a given defect or abnormality (called "the problem" for purposes of this document) and selecting the most likely solution. It should be noted that most problems are linked to system or process failures.

Process

1. The identity of the person leading the 5WHY analysis should be pre-determined by a formal responsibility linked to a job profile. The leader will assemble a team (3-4 members) including staff directly involved or affected, as well as specialists that can provide evidence and/or assist in finding solutions.
2. Define (or describe) the abnormality, incident or defect using the following questions:
 - a. What happened?
 - b. When did it happen?
 - c. Where did it happen?
 - d. Who was involved?
 - e. Did it happen before or is there a trend?
 - f. How much money did we lose as a result of the abnormal situation?
3. List all possible causes. A cause can be described as symptom and is typically the effect of a root cause (that needs to be determined). A root cause can be defined as the core reason an abnormal or non-conforming situation occurred.
4. Select the most likely root cause based on evidence. Real evidence should be used to eliminate/ disqualify a potential root cause.
5. Using the selected root cause, ask "WHY" this happened and document the answer. The process is
6. Turning the "effect" from the 1st WHY into a cause, continue to ask WHY again and document the outcome. Continue the WHY (cause/effect) questions until the root cause or true reason behind the problem is uncovered.
7. List solutions which should include short- and long-term actions. Grouped together, actions should provide a permanent solution to the identified problem.
8. Solutions should consider actions linked to equipment (Machine), people (Man), systems (Method), product (Material) or data (Measurement) – also referred to as the 5Ms.
9. Track the implementation of solutions through an action log.
10. Test the outcome of solutions over time to ensure the effectiveness of the solution. If the problem is not resolved or re-appears, revisit the 5WHY.

5WHY Tips

- Never assume an answer. Always use evidence to back-up answers.
- Always involve a team including staff involved in the incident.
- 5WHY's is not a witch-hunt. Create an atmosphere where there is true participation.
- Don't stop too soon and don't continue for too long. Generally, a root cause is found after 3-5 WHY's.
- It's easy to blame people or machines, but abnormalities or non-conformances are typically caused by system/process failures.