Example

Root cause analysis method

5 why

What is 5 Why method?

- *From Wikipedia:* 5 Why is a method of root cause analysis that is often used in quality engineering.

- 5 Why can be used individually or systematically as part of a fishbone diagram.

- It is possible to find root cause if you ask 5 times for the reason of problem. You can prevent the error recurs by elimination of the root cause.

- Usually elimination of the symptom only, cause often the error recurs in the same or similar conditions.

Example of 5 Why analyze

X. The vehicle will not start. (the problem)
- •*Why?*

1. The battery is dead. (first why)
- •*Why?*

2. The alternator is not functioning. (second why)
- •*Why?*

3. The alternator belt has broken. (third why)
- •*Why?*

4. The alternator belt was well beyond its useful service life and not replaced. (fourth why)
- •*Why?*

5. The vehicle was not maintained according to the recommended service schedule. (fifth why, a root cause)

From Wikipedia:

The questioning for this example could be taken further to a sixth, seventh, or higher level, but five iterations of asking why is generally sufficient to get to a root cause.

It is interesting to note that the last answer points to a process. This is one of the most important aspects in the 5 Why approach - the *real* root cause should point toward a process that is not working well or does not exist. Untrained facilitators will often observe that answers seem to point towards classical answers such as not enough time, not enough investments, or not enough manpower. These answers may be true, but they are out of our control. Therefore, instead of asking the question **why?**, ask **why did the process fail?**

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