

### WHY TECHNIQUE

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| <b>Definition</b>  | A simple yet effective way to move through layers of causes to get at the preventable root cause of a recurring problem.  |
| <b>Purpose</b>     | The why technique can help you find the root cause of a problem. You begin by asking why a problem occurs, and then repeatedly asking why that particular problem happened, until you have settled on a final, most important cause.  |
| <b>Application</b> | <ol style="list-style-type: none"> <li>1. Select a problem and create a clear and descriptive problem statement.</li> <li>2. Ask "Why did the problem occur?" to uncover the first-layer causes.</li> <li>3. Take the causes that you uncovered in step 2 and ask, "Why did <i>they</i> happen?" to uncover the second-layer causes.</li> <li>4. Continue asking why the previous causes happened until you believe you have uncovered the most important, root cause.</li> </ol> <p><b>Note:</b> If at any time there appears to be two very different answers to a given question – focus on completing one path first (asking why?) then complete the second path (asking why?).</p>   |
| <b>Example</b>     | <p>The why technique can be used to uncover a number of causes at each level. In the example that follows, however, a single cause is given at each level to illustrate the chain of events revealed by the why technique.</p> <p><b>Car does not start</b></p> <p><i>Problem</i><br/>Recently, the car has been difficult to start and now it will not start at all.</p> <p><i>Why won't the car start? (first-layer cause)</i><br/>The engine turns over, there is a spark, but there is no sign of fuel in the carburetor.</p> <p><i>Why did that occur? Why isn't there any gas? (second-layer cause)</i><br/>Removing the fuel line indicated no gas getting into the carburetor.</p> <p><i>Why did that occur? Why isn't there any gas in the fuel line going to the carburetor? (third-layer cause)</i><br/>Following the line to the fuel filter and removing the fuel line going into the filter - no gas going into the filter.</p> <p><i>Why did that occur? Why isn't there fuel going into the filter? (fourth-layer cause)</i><br/>The fuel gauge indicates the tank is full and a visual inspection indicates there is fuel in the tank. After removing the line from the fuel tank, gas did not flow from the fuel tank.</p> <p><i>Why did that occur? Why isn't the fuel flowing from the tank? (fifth-layer cause)</i><br/>There is a foreign object jammed in the line and restricting the flow of fuel.</p> |