

Facilitation Tip 16: Validate Cause-and-Effect Relationships

Once you've placed a cause on the Cause Map™ diagram, you'll need to check that it's accurate. Validating cause-and-effect relationships can be done in a variety of ways. I like to start on the far left with the affected goal and read the cause-and-effect relationships like a sentence, asking "Why?" going to the right of each cause. You can also read the Map by reading "because" for every connector. Be aware that sometimes, when the cause-and-effect relationship is not obvious, the question, "What else was required?" reads more clearly.

While reading the boxes out loud, if you notice you're using the word "then" between the causes, you've likely laid out the boxes in chronological order instead of cause-and-effect order.

Chicken Crossed the Road

Starting on the left, read the boxes out loud. There was an impact to safety because there was a potential for injury or fatality. There was a potential for injury because the chicken crossed the road. Why did the chicken cross the road? To get to the other side. Why? Because it was attempting to escape poultry quarantine.

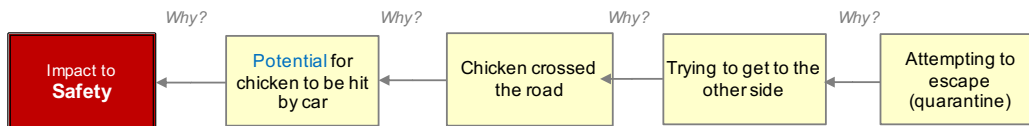
Facilitation Tip 16

Check out this video that describes how to check cause-and-effect relationships are valid within your Cause Map diagram.



(5 minutes)

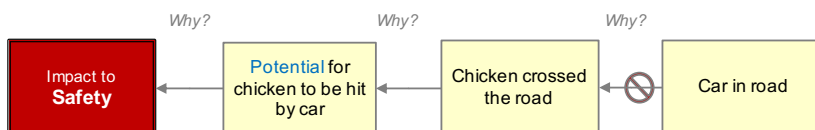
4-Why Cause Map™ Diagram



Reading the Cause Map diagram from left to right makes (logical) sense if the cause-and-effect relationships are accurately documented.

3-Why Cause Map™ Diagram

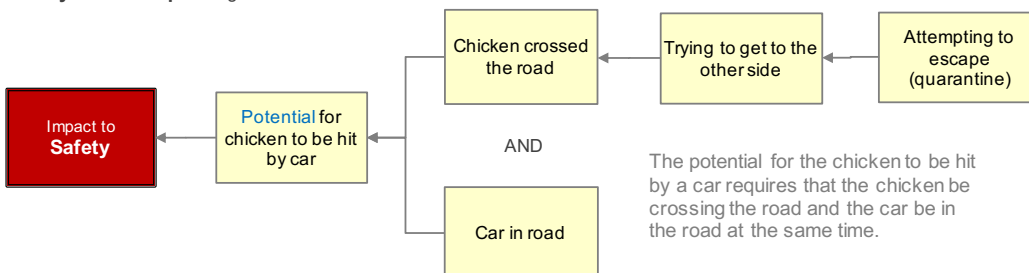
Now read this Map in the same way. Do you see how it doesn't make sense? The car didn't cause the chicken to cross the road.



Did the chicken cross the road because there was a car in the road? No. There was a potential injury because the chicken and the car were BOTH in the road. The car and the chicken were both required for the potential collision. Or, the chicken crossed the road because it was unaware of the car (or doesn't have the cognitive ability to understand the hazard).

Using the concepts of placing a cause (described in Facilitation Tip #14), we can relocate the cause to the correct location. The updated Cause Map diagram with the initial 4-Why Cause Map diagram is shown below.

5-Why Cause Map™ Diagram



The potential for the chicken to be hit by a car requires that the chicken be crossing the road and the car be in the road at the same time.

LESSON: As you are building your analysis, read it aloud to ensure that the causes are placed accurately, and the information reads as intended. From left to right, validate the cause is the answer to your questions of, "Why?" or, "What else is required?"

To learn more about the Cause Mapping® method of root cause analysis and how to better facilitate an investigation, consider one of our online training options at www.thinkreliability.com/events.

To learn more, visit our website at www.thinkreliability.com
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