



Getting to the heart of the problem: Root cause analysis

It's Friday morning and as you walk out of your front door, you look up and think what a beautiful day it is. The overnight rain has left the air crisp and fresh.

Stepping out onto the path, your foot slips on wet leaves and you feel yourself falling. You put your hand out to cushion your fall and feel a sharp pain as you hit the ground.

Now while you're lying on the ground, shocked and in pain, the last thing on your mind is going to be a root cause analysis (unless, perhaps, if you tripped over a tree root in the process of falling!). Your first instinct is to treat the pain and that makes perfect sense.

However, unless you enjoyed the experience, carrying out a root cause analysis should follow very closely on the heels of treatment and pain medication.

Taking it to the lab

This experience is no different to a problem in your lab (although hopefully lab problems won't lead to broken bones and bruises!).

You may jump in and treat the symptoms of the problem. But without getting to the root of it, the problem will almost certainly recur and need treatment again.

Root cause analysis helps people understand why the problem occurred in the first place.

Put simply, the techniques used follow a specific series of steps and various tools, that help to find the primary cause of the problem. Using these techniques, you can:

- Work out what happened
- Work out why it happened
- Figure out what you can do to reduce the possibility of it happening again.

In a lab, we assume that systems and events are interrelated. Something happening in one area can trigger an event in another. And then in another.

By following these actions backwards, you can figure out where the problem started and how it morphed into the issue you're now looking at.

The know-how

The process for root cause analysis is pretty clear and we've written a couple of articles about this previously. We've combined these into a pdf you can download.

There are a number of tools you can use to support your root cause analysis process. These include cause and effect diagrams and the 5 whys.

A root cause analysis is an essential part of your system-wide review. It will enable you to discover the events and factors leading to significant problems.

But do keep in mind that you also need to know when to stop. In theory, you could probably trace your root cause back to when the business was first established but that wouldn't be useful at all. Use your judgement and work back until you find a major cause that can be changed.

The process

Generally, a non-conformance and corrective action process can be explained in five easy steps*:

- Define the problem
- Collect the data
- Identify the possible causes
- Identify the root cause
- Implement solutions

Let's go back to your slip and fall issue at the beginning of the article.

The problem is that you fell and hurt yourself.

This is a recent problem since you've never fallen before.

Discovering the cause in this case is simple – wet leaves on the path.

Events leading to this problem were a combination of overnight rain and a lot of leaves.

Therefore the solution is simple. You can't do anything about rainfall so all you need to do is clean the leaves up. Root cause analysis done, and problem solved!

Or is it?

While you have implemented a correction (cleaned up the leaves) you haven't actually drilled down to the root of the problem.

Where did the leaves come from?

What conditions allowed the problem to occur?

What can you do to ensure it doesn't happen again?

Perhaps your slip and fall incident needs a little more investigation after all.

That doesn't sound easy...

Sometimes it can be but other times, particularly in a lab, it can be a more complex process.

That's why we've developed a Root Cause Analysis training course that can help you smooth out the bumps in the process.

If you'd like an inhouse session for you and your colleagues, Maree can arrange this.

Call her on 0411 540 709 or email info@masmanagementsystems.com.au to arrange a confidential, obligation free discussion about how we can help your business to work better and smarter. And if you need to look at other training, head to our training page for more options.

Remember, you don't have to do this alone!

*The steps may not be as easy as we make it sound...