

Q-Pulse®

Effective Root Cause* Analysis using MindGenius



* Also known as Cause and Effect

Why are you here?

You have an important issue or problem to decide upon. You have just downloaded MindGenius to help you with it but you need a few pointers to get you started.

If after reading this document you need a bit more help, our White Papers will guide you through Root Cause Analysis step by step. They are located on our website at www.mindgenius.com.

What is Effective Root Cause Analysis?

Root Cause Analysis is a technique designed to find the root cause of problems, the reasons behind and subsequent effects of the problems.

There are many benefits to using this method. It provides a format with a strong structure and helps you to ensure no details are forgotten about. It focuses on identifying contributing factors to the problem, assuring that all causes are identified and the problem is less likely to recur. It also allows visual identification of possible causes, which means that once you see your causes laid out in front of you, more thoughts are likely to be triggered and gaps are identified.

To be effective at Root Cause Analysis, you must be aware of all supporting information. There can't be any gaps when you gather the information at the start of the process. If there is, this will render any analysis you reach as flawed.

Traditional Approach

Traditional methods of information gathering use notepads, flipcharts and whiteboards to list causes and effects. People still come up with great ideas but often these ideas are forgotten about in the jumble of information gathered. There is often too much information with no clear structure and it is impossible to see any links between effects let alone causal ones.

As a result, many Root Cause Analyses don't work as well as they could. Often there is little action as a result of there being no clear path to follow in the gathered information, and hence no route from plan to action.

This problem, as we will show, is overcome with MindGenius.

Root Cause Analysis with MindGenius

Undertaking a Root Cause Analysis with MindGenius is simple and straightforward. All you need is a computer with MindGenius installed on it.

As with most activities, there is an underlying process, or sequence of activities that it's best to follow for a successful outcome.

The general process associated with Root Cause Analysis is shown below:

1. **Agree effect (problem) and approach to be used to address it** - it is important that everyone who is involved in the process understands, and is in agreement with the problem that is being addressed.
2. **Identify major causes** - initially explore what might be major causes of the effect.
3. **Break down causes** - for each of the major inputs identified above, break them down systematically to identify as many secondary inputs as possible. Add new major causes as and when they are identified.
4. **Evaluate causes** - analyse causes to prioritise or estimate likelihood/impact of occurrence.
5. **Investigate further** - having identified which of the inputs are more likely to occur or areas of uncertainty, investigate further.
6. **Identify root causes** - based on evaluation and any further investigations carried out, identify root causes and confirm.

1. Agree effect (problem) and approach to be used to address it.

Okay, ready to go? Firstly you need to decide what the problem or effect is. This is vital. This can then be noted as the title in a new MindGenius Map. For ease it is probably best to choose one of the MindGenius templates. You access them through the File Menu. You need to select "New" and then go into the "techniques section." Here you will find a choice of 3 templates. Choose whichever one suits you best. The 6M template (Cause and Effect) is particularly good and will prompt you with relevant questions.

Normally Root Cause Analysis is carried out using an Input Tree layout. This best represents the normal left to right flow of Cause & Effect. All of the templates in MindGenius are already in this format. It is then a case of gathering the information and all you need to do is type and return as you go along.

If you need to back up any points you can also add files as Attachments that provide background information to any branch in your map, for example:

- Customer complaint letters
- Failure analysis reports

2. Identify major causes

Using the map you can start to brainstorm the major causes of the effect. The templates give you major cause groupings that you should explore but you may need to add your own too.

3. Break down causes

Your map may become complex, but don't worry, as you can navigate your way around your map easily using the Map Explorer feature. You can drill up, down and sideways and you can focus in on specific areas of your map. This is ideal because this means you can see the big picture but focus in on the detail too. You can home in on one branch and brainstorm all the sub-causes without being distracted by the other causes.

This helps you to focus in on each major cause in turn. You can brainstorm and identify all causes and contributing factors.

4. Evaluate causes

With MindGenius you can re-arrange your causes using simple drag-and-drop mouse actions. This is useful as you may realize there is a more logical order as you continue through the process.

If you think causes are linked but don't belong together on the map you can use a Mental Connection to link them. This means you can see at a glance that the ideas have some elements in common.

5. Investigate further

You should now have gathered enough information to identify areas that could be root causes to your problems. You now need to pay them more attention to find out if they are indeed the main reason behind your problems. You can now gather information relating to and then seek to understand the factors that caused this and identify any potential root causes.

6. Identify Root Causes

Now is your chance to identify the real root causes. This can be done through further brainstorming and breaking down of the causes and/ or interviewing other members of staff and attaching supporting documents to branches using the attachments icon. You can use categories to identify areas that are the same, for example all the issues where staff incompetence was a contributing factor or where tight turnaround times led to problems. New maps can be quickly generated to give a different perspective by automatically Creating Category map. You can also visually differentiate branches within the map by using color and shape.

Summary








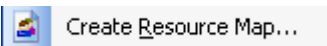
MindGenius allows you to do Root Cause Analysis in a highly effective and practical way. It means you can easily have a structure to your information gathering, which means the information is easier to understand afterwards. This will help you identify the real root cause.

Using MindGenius, Root Cause Analysis leads to action and results.

More queries on how to use MindGenius to make your Root Cause Analysis more valuable? Check out our "How to... effective Root Cause Analysis" document available from www.mindgenius.com.

Go do it

Okay, so you're ready to start. Our top tip to you would be to print out this page and keep it nice and safe next to you as you start to explore MindGenius.

Features	What does it do?	Where in MindGenius?
Map Diagram	Helps you collate information	
Map Explorer	Easily navigate around your information	
Type-and-Return	Enter information rapidly	
Drag-and-Drop	Move information around easily	
Categories	Link ideas together	
Create Category Map	View linked ideas quickly	
Affinity Diagram	A good way to collate information at the end of a brainstorming	
Actions	View items that need to be followed up	
File/Outlook Sharing Function	Send emails directly from MindGenius	
Resources	Allocate tasks to people	
Create Resource Map	See at a glance who needs to do what	
Export	Create a ready made document for a variety of other applications	