

# Creative Root Cause Analysis

Identifying Issues and Finding the Most Effective and Efficient Solutions

## Introduction

Problems must be resolved quickly and efficiently in order to minimize expenses and enhance asset availability and dependability. They also need to be permanently avoided in the future. But in day-to-day work, "jumping to conclusions," "trial and error," and "jumping to solutions" are well-known traps. With the advent of Industry 4.0, robots, big data, machine learning, and other rapidly evolving technologies, addressing difficult problems is becoming increasingly vital for professions in the future.

With the information and abilities you will get from this Innovative Root Cause Analysis (IRCA) training course, you can identify, characterize, evaluate, resolve, and avoid any issue, no matter how complicated. Many people consider the thorough and scalable RATIO-approach as well as the cutting-edge RATIO-methods like Event Mapping, Problem Analysis, and Human Factor Analysis to be best practices.

**The following will be covered in this Course N Carry Creative Root Cause Analysis training course:**

- The growing significance of root cause analysis techniques
- A thorough and universal method for preventing and solving any issue
- This strategy may be supported by creative and very successful techniques like event mapping, problem analysis, and human factor analysis.
- A comprehensive collection of doable suggestions for successfully using and implementing RCA in day-to-day practice

## Objectives

**After completing this training session on Creative Root Cause Analysis, participants will be able to:**

- Recognize the growing importance of employing reliable techniques for root cause analysis
- Involve the appropriate parties in any analysis in the appropriate way.
- Set priorities for issues and choose the most effective way to address them.
- Prevent and resolve issues related to production, quality, technology, and other areas more quickly and efficiently.

- Present analysis, ideas, and suggestions in a way that will maximize acceptability and comprehension.
- Following the course, immediately put the techniques you learnt into practice on a regular basis.

## Training Methodology

Attendees of this training course will receive comprehensive instruction on the topics included in the outline, including a mix of theory, real-world examples, numerous exercises, and application to problems from their own workplace. Participants will receive extra resources such as process cards, work sheets, case descriptions, example solutions, etc. in addition to a thorough training handbook.

## Organizational impacts

**Attending this Course N Carry training session will provide long-lasting outcomes for your company:**

- Problems and issues will be thoroughly examined and presented in a comprehensive, illustrative, and comprehensible manner.
- More quickly and efficiently, complex issues will be resolved, reducing recurrence and making a noticeable improvement to corporate performance.
- The methodical approach to problem solving will improve coordination and communication among all parties.
- Your participant's coworkers will begin to ask the appropriate questions as well, spurred on by the inquiries they had not previously heard.
- The techniques offered allow the organization to greatly enhance any current continuous improvement strategy.

## Personal Impact

**By participating in this Course N Carry training program, the attendees will:**

- Recognize the growing significance of problem-solving abilities
- Discover their own weaknesses while resolving issues
- Possess the ability to identify, evaluate, resolve, and avoid any issues or problems in day-to-day work
- Become more adept in communicating by asking insightful questions, reformulating ideas well, and crafting precise responses.
- Learn a lot about potential applications and optimal ways to put problem-solving techniques into practice.
- Greatly increase their level of personal effectiveness and expand their options for future employment

## Who should attend?

**A wide range of professionals can profit from this Course N Carry Creative Root Cause Analysis training course, however the following are the main advantages:**

- Supervisors and Managers of Engineering and Technology in any Industry
- Managers and Supervisors of Manufacturing and Operations
- Engineers specialising in maintenance, dependability, processes, quality, and plants
- Coordinators and Planners for Maintenance
- Team leaders and foremen

## **Course Outline**

### **Day 1**

#### **Overview Description of the Program - RCA**

- RCA Generic Methods (8D, A3, DAMIC, and RATIO)
- The Five Why, Ishikawa, Fault Tree, Apollo, and Other RCA Methods
- The Ratio-Approach
- Example and Illustration

### **Day 2**

#### **Set priorities and consider your issue.**

- Theory and problem-prioritization exercises
- Theory: Reflect - Ratio-step
- Case Introduction to Identify the Fundamental Cause
- Theory and Practice: Five Reasons
- Concepts and Activities: Mapping Events

### **Day 3**

#### **Examine Technical Issues**

- Theory: Step-by-Step - Examination
- Theory: Problem Analysis: Identify the real cause(s) of the problem and describe it (IS/IS-NOT).
- Theory utilizes additional techniques, such as the Ishikawa-diagram and Characteristics and changes, to identify potential reasons

- Event Map completion using the problem analysis's results

## Day 4

### **Examine intricate technical issues as well as organizational or human issues**

- Common and Special Causes Theory
- Theory and Practices for Recurring Issues, Complex Problems, and Startup Issues
- Concept and demonstration
- Principles and Application of Human Factor Analysis
- Finishing the Event Map using the Human Factor Analysis results

## Day 5

### **Choose, Put Into Practice, Monitor, and Assess Solutions**

- Theory: RATIO-steps: Identify the best and alternative options, put them into action, then monitor and assess the outcomes
- Exercise of a Complete RCA Using a Ratio Approach and Techniques
- RATIO-Approach and -Methods: application in day-to-day work (when/how to utilize)
- A set of guidelines and other useful suggestions for the effective application of RCA
- Assessment and conclusion of instruction