A3 Problem Solving in Manufacturing, Utilities, Operations & Engineering (2 CPD points)

About this Course

This 2 – day course introduces delegates to the key principles of problem solving and the A3 methodology. You will learn how to execute each step in the problem solving process and how these steps work together. Includes techniques which assist in better defining problems, conducting root cause analysis, developing, choosing, and implementing solutions, evaluating the results, and deciding on further action.

Who Should Take this Course?

This course is aimed at individuals in the manufacturing, utilities, operations, and engineering industries who wish to improve their problem solving skills. The course is filled with exercises and examples from industry, making it practical and relatable.

This course is suitable for those in manufacturing, utilities, operations, and engineering who have an NQF3 qualification or higher. It is aimed at those involved in core operations or technical support roles, including operators, artisans, supervisors, planners, technicians, technologists, engineers, production managers, quality managers, engineering managers and logistics managers.

10 MODULES
PACKED WITH EXAMPLES AND EXERCISES

2- DAY LIVE COURSE PRESENTED VIA ZOOM
PLUS, 2 YEARS OF COMPLIMENTARY ACCESS TO WWW.LEARN2SOLVEPROBLEMS.COM TO REINFORCE LEARNING

PRICING FOR THE 2 DAYS
R4,999/PERSON (VAT EXCL.)

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What you will learn

MODULE 1: PROBLEM SOLVING FUNDAMENTALS

- Broadly describe the flow of resources in the supply chains of manufacturing, utilities, operations, and engineering organisations
- Describe the 8 different types of waste that may be encountered in manufacturing and operations
- Explain what constitutes a problem in the manufacturing & operations environment
- Explain the difference between a “problem” and a “deviation”
- Explain how problems are detected
- Explain why the time taken to detect problems is important
- Explain what is meant by the “possible causes” of a problem
- Explain what is meant by a “prevalent cause”
- Explain what is meant by the “root cause” of a problem
- Explain what a “solution” to a problem is
- Explain the concept of continuous improvement and how problem solving supports it
- Describe the Plan Do Check Act cycle and how it is applied in practice
- Outline the benefits of problem solving
- Explain who is accountable for problem solving
- Explain when and how to escalate problems that you are unable to solve
- Describe the characteristics of an effective problem solving team

MODULE 2: AN OVERVIEW OF THE A3 PROBLEM SOLVING FRAMEWORK

- Explain the need for an overarching problem solving framework
- Understand the principles behind A3 Problem Solving
- Describe the key steps in the A3 Problem Solving Framework
- Explain how an A3 Record Sheet is used in practice

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MODULE 3: STATING THE PROBLEM

- Explain the need to define a problem using the problem statement
- Develop, test, and improve problem statements using the FOCUS-Q ruleset
- Understand how problem statements link to subsequent steps in the problem solving process

MODULE 4: ANALYSING THE PROBLEM

- Explain why we need to analyse the problem
- Understand how to gather data for analysing the problem
- Apply the "4W-E" method to define the problem
- Use the "Is/Is-Not" approach to define the problem
- Refine the problem statement further using information gathered during the analysis of the problem

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MODULE 5: MEASURING THE PROBLEM

- Identify all Performance Areas relevant to an individual problem
- Categorise an individual problem according to its dominant Performance Area
- Decide on an appropriate Performance Measure with which to measure an individual problem
- Decide on appropriate Units of Measurement for the Performance Measure chosen
- Express current performance in terms of the chosen Performance Measure and Units of Measurement
- Set an appropriate target
- Determine the gap between the target and current performance using the Performance Measure and Units of Measurement chosen for the

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MODULE 6: FINDING THE ROOT CAUSE OF THE PROBLEM

- Explain the concept of root cause analysis
- Understand the concept of Fundamental Possible Causes
- Explain how to identify independent possible causes
- Demonstrate the use of problem statements for initiating root cause analysis
- Use 5-WHY analysis to identify possible causes and the root cause of a problem

MODULE 7: DEVELOPING AND CHOOSING SOLUTIONS

- Describe, in generic terms, the different types of solutions encountered in manufacturing, utilities, operations and engineering
- Apply brainstorming for solution development
- Understand how experiments can be used to develop solutions
- Conduct a risk assessment on a solution
- Use the Effort-Benefit chart to choose the most appropriate solution

MODULE 8: IMPLEMENTING SOLUTIONS

- Explain the different phases of solution implementation
- Understand how to complete the implementation record on an A3 problem solving record sheet

MODULE 9: EVALUATING IMPLEMENTED SOLUTIONS AND DECIDING ON NEXT STEPS

- Explain why it is necessary to evaluate the performance of implemented solutions
- Evaluate an implemented solution
- Decide on how to react if a solution does not solve a problem
- Decide on how to react when a solution is successful

MODULE 10: RECORDING AND INTEGRATING THE A3 PROBLEM SOLVING PROCESS

- Describe the purpose of each element of an A3 Problem Solving Record Sheet
- Complete each section of an A3 Problem Solving Record Sheet when performing problem solving
- Explain the links between different elements of the A3 record sheet
- Ensure that the individual elements of the A3 Problem Solving Record Sheet are integrated and aligned

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Who you will learn from

This course is presented by Craig van Wyk, Founder of VWG Consulting. VWG owns the Learn2SolveProblems.com brand.

Craig has a B.Sc.(Eng.) in Chemical Engineering from UKZN and an MBA(with distinction) from the Wits Business School. He worked in engineering and production management for 13 years, including at executive level, at Tiger Brands and SAB, prior to becoming a consultant and trainer in 2005. He has since assisted a wide range of clients in various industries with continuous improvement projects and has developed and facilitated numerous problem solving training and coaching programmes. Craig's extensive experience with solving practical problems in industry is what makes him different to most training facilitators.

Where you will learn

The course is delivered virtually using the ZOOM platform. Participants will need a high-speed internet connection and will require a free version of the ZOOM app on their computers.

What else do you receive?

Participants receive access to an audio summary of the course via their unique profile on Learn2SolveProblems.com. Participants also receive complimentary access to all learning programmes on Learn2SolveProblems.com for a 2-year period following the course. All attendees receive a downloadable e-Certificate of Attendance. Candidates who complete an online quiz also receive a downloadable Certificate of Completion.

This course has validation number: SAIIE / CPD / P / 02 / 21

VWG Consulting has Provider number: SAIIE / CPD Provider /03/06/21

Do not hesitate to contact us for more information

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