

Contents

Training on Problem-Solving Methods.....	1
8D Problem-Solving Training Program.....	2
Outline for Unit 1: Getting Started.....	3
Outline for Unit 2: 8-Discipline Process.....	4
Objective of Unit 1: Getting Started.....	5
Unit 1, Lesson 1: Becoming Aware of a Problem.....	6
Unit 1, Lesson 2: Why Use a Structured Problem-Solving Process?.....	7
Unit 1, Lesson 3: Do You Need a Team?.....	8
Unit 1, Lesson 4: The Importance of Data.....	9
Unit 1, Lesson 5: Different Problem-Solving Models.....	10
Objectives for Unit 2: 8-Discipline Process.....	11
Unit 2, Lesson 1: Use a Team Approach.....	12
Unit 2, Lesson 2: Describe the Problem.....	13
Unit 2, Lesson 3: Interim Containment.....	14
Unit 2, Lesson 4: Define the Root Cause.....	15
Unit 2, Lesson 5: Develop Solutions.....	16
Unit 2, Lesson 6: Implement the Solution.....	17
Unit 2, Lesson 7: Prevent Recurrence.....	18
Unit 2, Lesson 8: Congratulate the Team.....	19
DMAIC Problem-Solving Training Program.....	20
Outline for Unit 1: Getting Started.....	21
Outline for Unit 2: DMAIC Project Cycle.....	22
Objective of Unit 1: Getting Started.....	23
Unit 1, Lesson 1: Becoming Aware of a Problem.....	24
Unit 1, Lesson 2: Why Use a Structured Problem-Solving Process?.....	25
Unit 1, Lesson 3: Do You Need a Team?.....	26
Unit 1, Lesson 4: The Importance of Data.....	27
Unit 1, Lesson 5: Different Problem-Solving Models.....	28
Objectives for Unit 2: DMAIC Project Cycle.....	29
Unit 2, Lesson 1: Define.....	30
Unit 2, Lesson 2: Measure.....	31
Unit 2, Lesson 3: Analyze.....	32
Unit 2, Lesson 4: Improve.....	33
Unit 2, Lesson 5: Control.....	35

Contents of the Problem-Solving Toolbox.....	37
Data Collection & Organization Tools	39
Data Display & Analysis Tools	42
Decision Making Techniques	47
General Improvement Tools	50
Process Mapping Tools.....	51
Project Management Tools	53
Statistical Tools & Techniques	56
List of Appendices.....	59
Appendix 1. Problem Statement Worksheet.....	60
Appendix 2. Team Start-Up Worksheet.....	61
Appendix 3. Minutes & Planner Worksheet.....	63
Appendix 4. Comparative Analysis Worksheet.....	65
Appendix 5. Checklist to Prevent Recurrence	66
Appendix 6. Power of Mistake-Proofing Solutions.....	67
Appendix 7. Examples of Causal Factors	68
Appendix 8. Explaining the 1.5 Sigma Shift	72
Appendix 9. Sigma Levels & DPMOs.....	73
Appendix 10. 8D Worksheet	74
Appendix 11. DMAIC Worksheet.....	77
Appendix 12. Glossary of Terms	80
Using Your Training Program	88
WBT vs. LAN vs. CD-ROM Delivery Formats	90
ABOUT: QualityTrainingPortal & LeanTrainingMachine	92

8D Problem-Solving, Unit 1, Lesson 1: Becoming Aware of a Problem

- ❑ Problems seem to surround us and attack from all sides; indications of problems can come at us from any angle including:
 - Internal metrics that are used to monitor the health of the processes and the organization.
 - Feedback from customers and employees.
 - Results of audits against standards and regulations.
 - There are many other indications that a problem exists.
- ❑ How do we decide which problems to work on (first)?
 - Use data, not emotions to decide which problems to attack first.
 - While we all would like every problem to be resolved as soon as we know about it, it is not practical or feasible to do so.
 - Focusing on the vital few ensures we can use our limited resources to solve the biggest problems. Often, solving big problems does take care of other, smaller problems (or are they symptoms?) at the same time.
- ❑ A Pareto Analysis can help identify the vital few problems on which we need to focus the organization.
 - A Pareto diagram shows that in most cases, a few of the problems are responsible for most of the issues.

