

# Apollo Root Cause Analysis – A New Way of Thinking

## Table of Contents

Introduction.....	1
What This Book Is About .....	1
How to Read This Book .....	3
About the Author.....	4
Chapter 1: Set Up to Fail .....	5
Problem Solving .....	6
Typical Problem-Solving Practices.....	8
Stopping Too Soon.....	9
The Need to Place Blame.....	11
The Root Cause Myth.....	15
The Illusion of Common Sense and a Single Reality .....	17
Groovenation.....	21
Storytelling .....	24
Categorical Thinking.....	28
Causes of Ineffective Problem Solving.....	31
Incomplete Problem Definition.....	31
Unknown Causal Relationships .....	32
A Focus on Solutions.....	32
Set Up To Fail.....	33
References .....	34
Chapter 2: Understanding the Cause and Effect Principle .....	35
Characteristics of Cause and Effect.....	37
Cause and Effect Are the Same Thing.....	38
Cause and Effects Are Part of an Infinite Continuum of Causes .....	39
Each Effect Has at Least Two Causes in the Form of Actions and Conditions.....	40
An Effect Exists Only If Its Causes Exist at the Same Point in Time and Space .....	45
Inside the Cause and Effect Principle: Baby Steps .....	48

Linear Language, Linear Thinking.....	51
Stories Start in the Past.....	51
Stories are Linear .....	52
Stories Use Inference to Communicate	
Causes .....	52
Understanding the Cause and Effect Principle.....	54
Chapter 3: Solving Problems Effectively Using	
Apollo Tools.....	55
Effective Problem Solving.....	58
Appreciative Understanding.....	58
Effective Tool Set .....	60
Define the Problem.....	61
Complete Problem Definition .....	63
What the Problem Definition Is Not.....	65
Create an Apollo Cause and Effect Chart .....	67
Principles of Creating an Apollo Cause and	
Effect Chart .....	67
Putting Together an Apollo Cause and Effect	
Chart .....	81
Solving Problems Effectively Using Apollo Tools .....	88
Chapter 4: Identifying Effective Solutions.....	89
Problem-Solving Process.....	91
Solution Criteria .....	93
Effective Solutions from Apollo Charts.....	95
Solution Guidelines.....	99
Solution Killers.....	101
Creative Solutions .....	103
Listen for the Laughter.....	104
Rapid Response Method .....	104
The Gano Rule .....	105
Yes-Anding.....	107
Creative Solutions Example.....	107
Identifying Effective Solutions .....	109
References .....	110

Chapter 5: Implementing Solutions .....	111
Commitment to Continuous Improvement.....	113
Institutionalizing the Process: The Key Is Training.....	116
When To Perform an Analysis .....	119
Threshold Criteria.....	119
Evidence Preservation Policy .....	120
Responsibilities Defined .....	121
Simple Reporting Scheme .....	121
Corrective Actions Tracking Program .....	125
Trending Causes .....	125
Implementing Solutions .....	127
Chapter 6: Facilitating Groups .....	129
Facilitation Guidelines.....	130
Gather Information.....	131
Define the Problem.....	133
Create an Apollo Cause and Effect Chart.....	134
Identify Solutions .....	137
Conducting Interviews .....	138
Pre-Requisites for Interviewing.....	139
Starting the Interview.....	141
Aspects of the Interview .....	142
Closing the Interview .....	143
Dealing with Personnel Performance Issues.....	144
Common Traps.....	146
Consensus .....	146
Groupthink.....	147
Experts .....	148
Parochial Mindset.....	149
Programmatic Barrier .....	150
Denial.....	151
Time As a Cause.....	152
Dealing with Group Interaction.....	153
The Proverbial Storyteller .....	153
The Analytic.....	153

The Nonparticipant .....	154
The Participant .....	155
Facilitation Guidelines: Some Q&A .....	155
Facilitating Groups.....	160
References .....	160
Chapter 7: A New Way of Thinking .....	161
A Simple Structured Approach.....	163
Effective Solutions for Everyday Problems	
Every Time .....	164
Appendix: Comparison of Common Root Cause Analysis	
Methods.....	167
Categorization Schemes.....	167
Causal Relationship Methods .....	170
Combinations.....	171
Other Methods.....	172
References .....	173
Glossary .....	175
Index.....	179
Acknowledgments.....	183