

## **Contents**

|  |           |
|--|-----------|
| List of Exhibits, Figures, and Tables  | xxi       |
| Preface  | xxvii     |
| Acknowledgments  | xxxix     |
| <b>Chapter One: Building a Comprehensive Evaluation Process</b>  | <b>1</b>  |
| Challenges   | 2         |
| <i>Global Evaluation Trends • Measurement and Evaluation Challenges • Benefits of Measurement and Evaluation • The Myths of Measurement and Evaluation</i>   |           |
| Key Steps and Issues   | 13        |
| <i>Stakeholders • Levels and Steps • Chain of Impact • ROI Process Model • Objectives • Evaluation Planning • Data Collection • Analysis • Isolation of the Effects of Learning and Development • Conversion of Data to Monetary Values • The Cost of Programs • The Return on Investment Calculation • Intangible Benefits • Data Reporting • Operating Standards • Implementation Issues</i> |           |
| Final Thoughts   | 31        |
| <b>Chapter Two: Defining Needs and Objectives: Ensuring Business Alignment</b>   | <b>32</b> |
| The Challenge  | 32        |
| <i>Business Alignment Issues • Begin with the End in Mind • Required Discipline • The Needs Analysis Dilemma</i>   |           |

|   |    |
|---|----|
| Payoff Needs  | 36 |
| <i>Key Questions • Obvious vs. Not So Obvious • The Reasons for New Programs • Determining Costs of the Problem • The Value of Opportunity • To Forecast or Not to Forecast</i>   |    |
| Business Needs  | 44 |
| <i>Determining the Opportunity • Defining the Business Measure—Hard Data • Defining the Business Need—Soft Data • Using Tangible vs. Intangible—A Better Approach • Finding Sources of Impact Data • Identifying All the Measures • Exploring “What If . . . ?”</i> |    |
| Job Performance Needs   | 53 |
| <i>Analysis Techniques • Taking a Sensible Approach</i>   |    |
| Learning Needs  | 58 |
| <i>Subject-Matter Experts • Job and Task Analysis • Observations • Demonstrations • Tests • Management Assessment</i>   |    |
| Preference Needs  | 61 |
| <i>Key Issues • Impact Studies</i>  |    |
| Levels of Objectives for Programs   | 65 |
| <i>Reaction and Planned Action • Learning Objectives • Application and Implementation Objectives • Business Impact Objectives • ROI Objectives • The Importance of Specific Objectives</i>  |    |
| Final Thoughts  | 73 |
| <b>Chapter Three: Measuring Inputs and Indicators</b>   | 74 |
| Measuring Input and Indicators  | 75 |
| <i>Defines the Input • Reflects Commitment • Facilitates Benchmarking • Explains Coverage • Highlights Efficiencies • Provides Cost Data</i>  |    |
| Tracking Participants   | 78 |
| Tracking Hours  | 80 |
| Tracking Coverage by Jobs and Functional Areas  | 81 |
| Tracking Topics and Programs  | 82 |

|   |         |
|---|---------|
| Tracking Requests   | 84      |
| Tracking Delivery   | 85      |
| Tracking Costs  | 86      |
| <i>Pressure to Disclose All Costs • The Danger of Costs Without Benefits • Sources of Costs • Learning Program Steps and Costs • Prorated Versus Direct Costs • Employee Benefits Factor • Major Cost Categories • Cost Reporting</i> |         |
| Tracking Efficiencies   | 94      |
| Tracking Outsourcing  | 95      |
| Tracking for the Scorecard  | 96      |
| Defining Key Issues   | 97      |
| <i>Input Is Not Results • Reports to Executives Should Be Minimized • The Data Represent Operational Concerns • This Data Must Be Automated</i>   |         |
| Final Thoughts  | 98      |
| <br><b>Chapter Four: Measuring Reaction and Planned Action</b>  | <br>100 |
| Why Measure Reaction and Planned Action?  | 101     |
| <i>Customer Service • Early Feedback Is Essential • Making Adjustments and Changes • Predictive Capability • For Some, This Is the Most Important Data • Comparing Data with Other Programs • Creating a Macro Scorecard</i>          |         |
| Sources of Data   | 106     |
| <i>Participants • Participants' Managers • Internal Customers • Facilitators • Sponsors/Senior Managers</i>   |         |
| Areas of Feedback   | 107     |
| <i>Content vs. Non-Content • The Deceptive Feedback Cycle • Key Areas for Feedback</i>  |         |
| Timing of Data Collection   | 114     |
| <i>Early, Detailed Feedback • Pre-Assessments • Collecting at Periodic Intervals • For Long Programs with Multiple Parts</i>  |         |

|   |     |
|---|-----|
| Data Collection with Questionnaires and Surveys                   | 115 |
| <i>Questionnaire/Survey Design • Intensities •</i>                |     |
| <i>Questionnaire/Survey Response Rates • Sample Surveys</i>       |     |
| Data Collection with Interviews and Focus Groups                  | 123 |
| Improving Reaction Evaluation                                     | 123 |
| <i>Keep Responses Anonymous • Have a Neutral Person</i>           |     |
| <i>Collect the Forms • Provide a Copy in Advance</i>              |     |
| <i>• Explain the Purpose of the Feedback and How It</i>           |     |
| <i>Will Be Used • Explore an Ongoing Evaluation</i>               |     |
| <i>• Consider Quantifying Course Ratings • Collect</i>            |     |
| <i>Information Related to Improvement • Allow Ample</i>           |     |
| <i>Time for Completing the Form • Delayed Evaluation</i>          |     |
| <i>• Ask for Honest Feedback</i>                                  |     |
| Using Data  | 127 |
| <i>Building the Macro-Level Scorecard</i>                         |     |
| Shortcut Ways to Measure Reaction and Planned Action              | 129 |
| Final Thoughts  | 130 |
| <b>Chapter Five: Measuring Learning and Confidence</b>            | 132 |
| Why Measure Learning and Confidence?                              | 132 |
| <i>The Importance of Intellectual Capital • The Learning</i>      |     |
| <i>Organization • The Learning Transfer Problem • The</i>         |     |
| <i>Compliance Issue • The Use and Development of</i>              |     |
| <i>Competencies • The Role of Learning in Programs</i>            |     |
| <i>• The Chain of Impact • Certification • Consequences</i>       |     |
| <i>of an Unprepared Workforce</i>                                 |     |
| The Challenges and Benefits of Measuring Learning                 | 137 |
| <i>The Challenges • The Benefits</i>                              |     |
| Measurement Issues  | 140 |
| <i>Objectives • Typical Measures • Timing • Cognitive</i>         |     |
| <i>Levels of Bloom's Taxonomy</i>                                 |     |
| Data Collection Methods   | 144 |
| <i>Questionnaires/Surveys • Objective Tests • Criterion-</i>      |     |
| <i>Referenced Tests • Performance Tests • Technology and</i>      |     |
| <i>Task Simulations • Case Studies • Role Playing/Skill</i>       |     |
| <i>Practice • Assessment Center Method • Exercises/Activities</i> |     |
| <i>• Informal Assessments</i>                                     |     |

|   |            |
|---|------------|
| Administrative Issues   | 157        |
| <i>Reliability and Validity • Consistency • Monitoring</i>      |            |
| <i>• Pilot Testing • Readability • Scoring • Reporting</i>      |            |
| <i>• Confronting Test Failures</i>                              |            |
| Using Learning Data   | 161        |
| Final Thoughts  | 162        |
| <b>Chapter Six: Measuring Application and Implementation</b>    | <b>163</b> |
| Why Measure Application and Implementation?                     | 163        |
| <i>The Value of Information • A Key Transition Time</i>         |            |
| <i>• The Key Focus of Many Programs • The Chain of</i>          |            |
| <i>Impact • Barriers and Enablers • Reward Those</i>            |            |
| <i>Who Are Most Effective</i>                                   |            |
| Challenges of Measuring Application and Implementation          | 166        |
| <i>Linking Application with Learning • Designing Data</i>       |            |
| <i>Collection into Programs • Applying Serious Effort to</i>    |            |
| <i>Level 3 Evaluation • Including Level 3 in the Needs</i>      |            |
| <i>Assessment • Developing ROI with Application Data</i>        |            |
| Key Issues  | 168        |
| <i>Methods • Objectives • Topics to Explore • Sources</i>       |            |
| <i>• Timing • Responsibilities</i>                              |            |
| The Use of Questionnaires                                       | 172        |
| <i>Progress with Objectives • Relevance/Importance of</i>       |            |
| <i>the Program • Knowledge/Skill Use • Changes with</i>         |            |
| <i>Work/Action Items • Improvements/Accomplishments</i>         |            |
| <i>• Define the Measure • Provide the Change • Monetary</i>     |            |
| <i>Value • Total Impact • List of Other Factors</i>             |            |
| <i>• Improvements Linked with the Program • Perceived</i>       |            |
| <i>Value • Links with Output Measures • Success of the</i>      |            |
| <i>Program Team • Barriers and Enablers • Management</i>        |            |
| <i>Support • Appropriateness of Program and Suggestions for</i> |            |
| <i>Improvement • Checklist • Improving Response Rates</i>       |            |
| Data Collection with Interviews                                 | 189        |
| <i>Types of Interviews • Interview Guidelines</i>               |            |
| Data Collection with Focus Groups                               | 191        |
| <i>Applications for Focus Group Evaluation • Guidelines</i>     |            |

|   |         |
|---|---------|
| On-the-Job Observation  | 193     |
| <i>Guidelines for Effective Observation</i>   |         |
| The Use of Action Plans and Follow-Up Assignments   | 196     |
| <i>Developing the Action Plan • Successful Use of Action Plans • Action Plan Advantages and Disadvantage</i>  |         |
| The Use of Performance Contracts  | 203     |
| Transfer of Learning  | 204     |
| Developing ROI for Level 3  | 206     |
| Data Use  | 209     |
| Final Thoughts  | 211     |
| <br><b>Chapter Seven: Measuring and Isolating the Impact of Programs</b>  | <br>212 |
| Why Measure Business Impact?  | 213     |
| <i>Higher-Level Data • Breaking the Chain of Impact • A Business Driver for Many Programs • Show Me the Money Data • Easy to Measure • Common Data Types</i>  |         |
| Types of Impact Measures  | 215     |
| <i>Hard Versus Soft Data • Tangible Versus Intangible • Scorecards • Specific Measures Linked to Programs</i>   |         |
| Business Performance Monitoring   | 219     |
| <i>Identify Appropriate Measures • Convert Current Measures to Usable Ones • Developing New Measures</i>  |         |
| The Use of Action Plans to Develop Business Impact Data   | 221     |
| <i>Set Goals and Targets • Define the Unit of Measure • Place a Monetary Value on Each Improvement • Implement the Action Plan • Provide Specific Improvements • Isolate the Effects of the Program • Provide a Confidence Level for Estimates • Collect Action Plans at Specified Time Intervals • Summarize the Data and Calculate the ROI • Advantages of Action Plans</i> |         |
| Use of Performance Contracts to Measure Business Impact   | 227     |

|  |     |
|--|-----|
| The Use of Questionnaires to Collect Business Impact Data  | 228 |
| <i>When You Don't Have a Clue • When the Measure Is a Defined Set • When the Measure Is Known</i>  |     |
| • <i>Response Rates</i>  |     |
| Selecting the Appropriate Data Collection Method for Each Level  | 235 |
| Isolating the Effects of the Program   | 237 |
| <i>Identifying Other Factors: A First Step • Using Control Groups • Using Trend-Line Analysis • Forecasting</i>  |     |
| • <i>Using Estimates • Calculating the Impact of Other Factors</i>   |     |
| Use of the Techniques  | 255 |
| Final Thoughts   | 255 |
| <b>Chapter Eight: Identifying Benefits and Costs, and Calculating ROI</b>  | 257 |
| Why Calculate Monetary Benefits?   | 258 |
| <i>Value Equals Money • Impact Is More Understandable</i>  |     |
| • <i>Money Is Necessary for ROI • Monetary Value Is Needed to Understand Problems • Key Steps to Convert Data to Money</i>   |     |
| Standard Monetary Values   | 262 |
| <i>Converting Output Data to Money • Calculating the Cost of Quality • Converting Employee Time Using Compensation • Finding Standard Values</i>                         |     |
| Data Conversion When Standard Values Are Not Available   | 271 |
| <i>Using Historical Costs from Records • Using Input from Experts to Convert Soft Data • Using Values from External Databases • Linking with Other Measures</i>          |     |
| • <i>Using Estimates from Participants • Using Estimates from the Management Team • Using Staff Estimates</i>  |     |
| Technique Selection and Finalizing the Values  | 282 |
| <i>Use the Technique Appropriate for the Type of Data</i>  |     |
| • <i>Move from Most Accurate to Least Accurate • Consider the Resources • When Estimates Are Sought, Use the Source with the Broadest Perspective on the Issue • Use</i> |     |

|  |     |
|--|-----|
| <i>Multiple Techniques When Feasible • Apply the<br/>Credibility Test • Review the Client's Needs • Is This<br/>Another Project? • Consider a Potential Management<br/>Adjustment • Consider the Short-Term/Long-Term Issue<br/>• Consider an Adjustment for the Time Value of Money</i> |     |
| Why Monitor Costs?   | 288 |
| Why Measure ROI?   | 289 |
| Fundamental Cost Issues  | 290 |
| <i>Monitor Costs, Even If They Are Not Needed • Cost<br/>Will Not Be Precise • Disclose All Costs • Fully Loaded<br/>Costs • Reporting Costs Without Benefits</i>  |     |
| Cost-Tracking Issues   | 293 |
| <i>Prorated Versus Direct Costs • Employee Benefits Factor</i>   |     |
| Major Cost Categories  | 294 |
| <i>Initial Analysis and Assessment • Development of<br/>Solutions • Acquisition Costs • Application and<br/>Implementation Costs • Maintenance and Monitoring<br/>• Support and Overhead • Evaluation and Reporting</i>  |     |
| Cost Accumulation and Estimation   | 296 |
| Basic ROI Issues   | 296 |
| <i>Definition • Annualized Values: A Fundamental Concept</i>   |     |
| BCR/ROI Calculations   | 297 |
| <i>Benefit/Cost Ratio • ROI Formula • ROI Targets<br/>• ROI Is Not for Every Program</i>   |     |
| Other ROI Measures   | 303 |
| <i>Payback Period • Discounted Cash Flow</i>   |     |
| Final Thoughts   | 304 |
|  |     |
| <b>Chapter Nine: Measuring the Hard to Measure<br/>and the Hard to Value: Intangible Benefits</b>  | 307 |
| Why Intangibles Are Important  | 308 |
| <i>Intangibles Are the Invisible Advantage • We Are<br/>Entering the Intangible Economy • More Intangibles<br/>Are Converted to Tangibles • Intangibles Drive<br/>Programs</i>   |     |



|  |     |
|--|-----|
| Measurement and Analysis of Intangibles                      | 310 |
| <i>Measuring the Intangibles • Converting to Money</i>       |     |
| <i>• Identifying Intangibles • Analyzing Intangibles</i>     |     |
| Customer Service   | 316 |
| Team Effectiveness   | 319 |
| <i>Cooperation/Conflict • Decisiveness/Decision Making</i>   |     |
| <i>• Communication</i>                                       |     |
| Innovation and Creativity                                    | 320 |
| <i>Innovation • Creativity</i>                               |     |
| Employee Attitudes   | 324 |
| <i>Employee Satisfaction • Organizational Commitment</i>     |     |
| <i>• Employee Engagement</i>                                 |     |
| Employee Capability  | 326 |
| <i>Experience • Knowledge • Learning • Competencies</i>      |     |
| <i>• Educational Level • Attention</i>                       |     |
| Leadership   | 333 |
| <i>360-Degree Feedback • Leadership Inventories</i>          |     |
| <i>• Leadership Perception</i>                               |     |
| Job Creation and Acquisition                                 | 335 |
| <i>Productivity Versus Job Growth • Importance of Job</i>    |     |
| <i>Creation and Growth • Recruitment Sourcing and</i>        |     |
| <i>Effectiveness • Recruitment Efficiency</i>                |     |
| Stress   | 339 |
| Networking   | 343 |
| Final Thoughts   | 345 |
| <b>Chapter Ten: Reporting Results</b>                        | 348 |
| Why the Concern About Communicating Results?                 | 348 |
| <i>Communication Is Necessary to Make Improvements</i>       |     |
| <i>• Communication Is Necessary to Explain Contributions</i> |     |
| <i>• Communication Is a Politically Sensitive Issue</i>      |     |
| <i>• Different Audiences Need Different Information</i>      |     |
| Principles of Communicating Results                          | 350 |
| <i>Communication Must Be Timely • Communication</i>          |     |
| <i>Should Be Targeted to Specific Audiences • Media</i>      |     |

|  |     |
|--|-----|
| <i>Should Be Carefully Selected • Communication Should Be Unbiased and Modest • Communication Must Be Consistent • Testimonials Are More Effective Coming from Respected Individuals • The Audience's Opinion of the Program Will Influence the Communication Strategy</i> |     |
| The Process for Communicating Results  | 352 |
| The Need for Communication   | 354 |
| Planning the Communications  | 355 |
| The Audience for Communications  | 356 |
| <i>Basis for Selecting the Audience</i>  |     |
| Information Development: The Impact Study  | 359 |
| Communication Media Selection  | 361 |
| <i>Meetings • Interim and Progress Reports • Routine Communication Tools • E-Mail and Electronic Media • Program Brochures and Pamphlets • Case Studies</i>  |     |
| Presenting Information   | 364 |
| <i>Routine Feedback on Program Progress • The Presentation of Results to Senior Management • Streamlining the Communication • Building Scorecards</i>  |     |
| Reactions to Communication   | 372 |
| Using Evaluation Data  | 372 |
| Final Thoughts   | 373 |
| <b>Chapter Eleven: Implementing and Sustaining a Comprehensive Evaluation System</b>   | 375 |
| Why the Concern About Implementing and Sustaining Evaluation?  | 375 |
| <i>Resistance Is Always Present • Implementation Is Key • Consistency Is Needed • Efficiency Is Necessary</i>  |     |
| Implementing the Process: Overcoming Resistance  | 377 |
| Assessing the Climate  | 378 |
| Developing Roles and Responsibilities  | 379 |
| <i>Identifying a Champion • Developing the Evaluation Leader • Establishing a Task Force • Assigning Responsibilities</i>  |     |

|  |     |
|--|-----|
| Establishing Goals and Plans   | 382 |
| <i>Setting Evaluation Targets • Developing a Timetable<br/>    for Implementation</i>  |     |
| Revising or Developing Policies and Guidelines   | 383 |
| Preparing the L&D Team   | 384 |
| <i>Involving the L&amp;D Team • Using Measurement and<br/>    Evaluation as a Learning Tool • Teaching the L&amp;D Team</i>                    |     |
| Initiating Evaluation Studies  | 385 |
| <i>Selecting the Initial Program • Developing the<br/>    Planning Documents • Reporting Progress<br/>    • Establishing Discussion Groups</i> |     |
| Preparing the Sponsors and Management Team   | 387 |
| Removing Obstacles   | 388 |
| <i>Dispelling Myths • Delivering Bad News</i>  |     |
| Monitoring Progress  | 390 |
| Final Thoughts   | 390 |
| Appendix: How Results-Based Are Your Workplace<br>Learning and Performance Programs?   | 391 |
| An Assessment for the L&D Staff  | 391 |
| Glossary   | 403 |
| Index  | 407 |
| About the Authors  | 423 |

<http://www.pbookshop.com>