

Real World Training Evaluation

Navigating Common Constraints for Exceptional Results

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Preface

In the early 1970s, the real world of training included minimum evaluation. Donald Kirkpatrick completed his doctoral dissertation in the 1950s, bringing a concept of four steps to training evaluation to the field. While an interesting concept, it was missing a model and set of standards to support replication and scalability over time. At the time, organizations collected data at the reaction and learning levels, with minimal, if any, data collection occurring at the application and impact levels. Return on investment (ROI) was not even a twinkle in the eyes of learning professionals.

Then in 1972 Jack Phillips brought the real world of business to the training profession. In response to a senior executive's request to demonstrate the financial ROI of a cooperative education program, he built upon Kirkpatrick's four steps to create what are now known as the five levels of evaluation. Additionally, he developed a model and set of standards, or guiding principles, to ensure credibility and reliability in his approach. This triad—the five-level framework, 10-step process model, and 12 guiding principles—is known as the ROI Methodology, which is currently the most applied and documented approach to evaluate talent development programs and a variety of other programs in other disciplines. This process provides a system for talent development professionals to ensure their programs drive the results stakeholders need to make decisions. In today's world, the need for evaluation of talent development programs has never been so real.

Research Calls for More Evaluation

For the past three years, The Conference Board's CEO Challenge, an annual survey of chief executive officers at large organizations around the world, has indicated that the top challenge CEOs face is human capital. Their continued cry for talent, coupled with the July/August 2015 *Harvard Business Review* cover story "It's Time to Blow Up HR," indicates something isn't working. CEOs need human capital to help them drive operational excellence, customer relationships, innovation, and sustainability. According to the CEO Challenge 2015, training and development and improving leadership development programs are among the top strategies to address this need.

Unfortunately, demonstrating how training and development, leadership development, and other talent development initiatives drive operational excellence, customer

relationships, innovation, and sustainability has not been top-of-mind for many learning organizations. While there are hundreds of studies describing the impact and ROI these programs contribute to the business, the demand outweighs the supply. In 2009 and 2010, we partnered with ATD to ask CEOs about data they receive for learning investments: What did they want to receive and how important were the different types of measures? They told us the top two measures were impact and ROI, respectively. But they also told us that they weren't receiving these measures of results. This gap is telling—the focus of evaluating talent development remains, in large part, on the inputs and lower levels of data. The good news is that things are changing, thanks to increased application of the ROI Methodology, ongoing research that calls for more focus on impact and ROI data, and louder cries from executives.

This change is demonstrated in the results of Chief Learning Officer's Business Intelligence Board 2015 Measurement and Metrics survey. According to this report, 35.6 percent of the 335 respondents use business impact data to describe the results of training on the broader enterprise; 21.6 percent use ROI for the same purpose. In terms of planning, 22.6 percent plan to implement ROI in the next 12 months and 9.7 percent plan to implement ROI within 12 to 24 months of the study. In addition, 17.3 percent plan to implement it with no particular timeframe in mind. This suggests that 71.2 percent of respondents are either using or plan to use ROI data as part of their measurement mix.

Measurement and Evaluation Are Still Hot Topics

You may be thinking, "Not another book on evaluation." On the one hand, we agree with you. But, the conversation about measurement and evaluation continues—particularly in this era of all things analytics.

Think about it. Human capital represents the top challenge for CEOs. Investment in human capital runs the gamut. McKinsey & Company and The Conference Board's *The State of Human Capital 2012: False Summit* reported that organizations still have far to go when it comes to human capital, and that the common thread among all things human capital is analytics. Analytics requires measurement and evaluation; it requires collecting, analyzing, reporting, and using data. While much of the analytics conversation is at the macrolevel, where organizations attempt to claim success based on high-level statistical models describing the connection between overall investment in people and overall organization performance, it is at the program-investment level where the rubber meets the road. It is through implementation of training and development programs, performance management systems, diversity and inclusion initiatives, engagement projects, and leadership development programs that the results occur. By demonstrating results at the program level, it is possible to show how that microinvestment leads to the macro-results.

Measurement and evaluation, including impact and ROI, are the foundation for linking the human capital investment to operational excellence, customer relationships,

innovation, and sustainability. They remain hot topics, and will remain so for years to come. The question is whether or not we—those of us perpetuating the conversation—can keep elevating the conversation so that organizations who have trekked beyond base camp can continue their climb toward the measurement and evaluation summit.

What's New About This Book?

A good process is a good process—it evolves through application, but the fundamentals don't change. We've been writing about the five levels, 10 steps, and 12 guiding principles for decades. The application of this approach changes as the needs of clients change, but because the process is solid—both from an application standpoint and a research standpoint—we can easily scale its use. We can also restate this approach in ways that will resonate with different audiences or even with the same audiences. That is what this book is about.

Juana Llorens, former manager of the ATD Learning & Development Community of Practice, came to us a couple of years ago about writing a book in a more conversational format with a variety of real world examples and issues integrated into the book. This book—speaking to an audience that understands the fundamentals of measurement and evaluation—covers the steps in the evaluation process at a higher level than some books. It also integrates case studies, research, and applications found in the real world. Some of these examples come from our workshops, where real world practitioners learn to apply the process, others represent new applications, and still others represent the latest research in evaluation.

Each chapter opens with a road map summarizing what's to come. Chapters begin with route guidance to describe key issues on the topic, followed by a suggested route to take when dealing with the issue. The chapters include suggestions when detours from the ideal are required, along with guideposts to keep you on track. They also include points of interest, which may be case studies, research, or stories that bring key issues in the chapter to light. Each chapter closes with suggested next steps and resources to help you dig deeper and move forward.

Target Audience

Real World Training Evaluation is written for anyone interested in reading more about the key steps in measurement and evaluation. It is a light read—in comparison with some of our other publications. But you will, hopefully, gain new insights that address issues important to you. It is written for those with some fundamental knowledge of the ROI Methodology, but in such a way that a person new to evaluation will be able to follow it. Specific audiences for whom this book is written are managers of learning functions, learning professionals who want a different perspective of our measurement process, participants of evaluation workshops such as ATD's Evaluating Learning Impact and Measuring ROI Certificate Programs, educators teaching courses on program evaluation

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with a focus on learning and development, and students of evaluation courses who want further explanation of points made in the more comprehensive textbooks. We think anyone taking the journey through the real world of evaluation will get value from this book. We hope you enjoy it.

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No book is the work of one or two people: It's the people whose names are not on the cover that makes book production work. First and foremost, we want to thank ATD for another opportunity to partner on developing content focused on measurement and evaluation. No organization knows more about the need to drive value in learning and development than ATD. Their recognition of this allows us to work with them to help practitioners build capability, improve their programs, and drive change in their organizations through evaluation.

Although she is no longer with ATD, we want to thank Juana Llorens for approaching us with the concept for this book. Additionally, we want to thank Justin Brusino, manager of ATD's Learning Technologies Community of Practice, for his initial help with this book as well as the others on which we have worked with him. A special thanks goes to Melissa Jones, associate editor at ATD, for her great work editing the manuscript. We also thank her for her incredible patience as we produced this book. We are fortunate to work with a team at ATD who understands the importance our work in the real world has on our books. There are many ways to approach having one's name on a book. People can be writers, who want to write but not apply. There are practitioners, researchers, and consultants who want to be published authors but do not want to write. Then there are those of us who practice and teach what we preach in our publications, and want to write about what our research and experience tell us.

Managing the two of us is all but impossible for most people. But Hope Nicholas, our director of publications, has come the closest to being successful. Hope's ability to shift from one project to the next is more than admirable—agility should be her middle name. Her ability to decipher our edits from documents we mark up, scan, and email from 50,000 feet on Delta Airlines is second to none. We could not complete any of our publications without Hope's help. For all that she does, we thank her.

We also thank the rest of our team at ROI Institute for helping us manage schedules, support our clients, and get from one location to the next in one piece. We appreciate all that you do.

Finally, we have a great appreciation for each other. Individually we are good; together we are much better. Jack's ability to generate content is amazing. He

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remembers (almost) everything he hears and reads, and can turn it into something relevant to our clients. Patti's ability to take the content and rewrite it for a particular audience or publication is a gift. While we work independently on publications, each taking the lead on the books that matter most to us, it is what we do together that makes our work fun and more meaningful. We are fortunate—we love our work, the people with whom we work, and each other. Life in the real world can't get much better than this.

Introduction

One of the great mistakes is to judge policies and programs by their intentions rather than their results.

-Milton Friedman

Are You Ready for the Real World?

Measurement and evaluation, including calculating the return on investment (ROI) in learning and development, are real. Achieving success in the world of learning and development requires us to embrace this fact and ready ourselves for the journey. But all too often, learning and development professionals launch their journey without a clear destination in mind, much less guideposts to show them the way. Depending on the amount of time, money, and resources available, as well as the expectations of those funding the trip, getting to the right place at the right time is important.

The ultimate destination of real world evaluation is the intersection of learning and evaluation, where the two are so intertwined that the activity of evaluation is seamless. Learning and development professionals who implement real world evaluation describe program success in quantitative, qualitative, financial, and nonfinancial terms. They show the contribution of programs and projects in terms that are meaningful to all stakeholders. In addition, through the use of evaluation, they can help the learning function earn the respect of senior management by demonstrating bottom-line impact, including the ROI.

Real world evaluation provides those requesting and authorizing programs a complete set of data to show the program's overall success. A balanced profile of results provides coverage from different sources, at different timeframes, and with different types of data. With evaluation data, organizations can improve programs and projects, making adjustments along the way.

Success with evaluation requires involvement from all stakeholders, including program designers and developers, facilitators, and evaluators. Throughout program design and implementation, the entire team of stakeholders focuses on results; this often enhances the evaluation results because the ultimate outcomes are clearly in mind.

1

Program processes, activities, and steps focus on evaluation measures, from how well participants respond to the program to the actual ROI. As the function demonstrates success, confidence grows, which enhances the results of future program evaluations.

If a program is not going well and results are not materializing, evaluation data will prompt changes or modifications to the program. On the other hand, evaluation can also provide evidence that the program will not achieve the desired results. While it takes courage to eliminate a program, in the long term, this action will reap important benefits.

Real world evaluation is a balance between art and science as well as accuracy and cost. It is comprehensive, yet it does not have to be a costly or painful experience. A successful journey toward the final destination begins with recognizing the need for evaluation before someone asks you to pursue it.

Treacherous roads could lie ahead if:

- · You have pressure from senior management to measure results.
- There is little, if any, investment in measurement and evaluation.
- · You have experienced one or more program disasters.
- A new director has just moved into the learning leader's role.
- · Managers want to be on the cutting edge.
- Little support exists for the learning function from managers outside the learning function.

To ensure you are ready to make your way down the road to results, assess your readiness for the real world using the survey in Table 1-1.

Ideal Versus Real

In the ideal world of evaluation, we would evaluate every program the same way, using the same technology and asking the same questions while actually implementing programs in a controlled environment. We would take the same measures and generate the same data so that at the universal level we could say with certainty: Here is the global return on investment (ROI) in learning and development. But that's not the real world.

In the real world, organizations invest differently in their people depending on the strategy that best supports the organization's goals and objectives. They approach evaluation differently depending on the strategy, the types of programs, different levels of interest in investment outcomes, and the various levels of evaluation capability across the learning and development community. Regardless of the differences, successful evaluation implementation requires adherence to a set of standards and observation of the guideposts that lead the way when detours occur.

This book will provide you the tools, insights, and resources to help you tackle evaluation in the real world.

TABLE 1-1. READINESS ASSESSMENT

Is Your Organization Ready for Real World Evaluation?					
Check the most appropriate level of agreement for each statement (1 = strongly disagree; 5 = strongly agree)					
	Dis	sagr	ee	Agı	ree
	1	2	3	4	5
My organization is considered a large organization with a wide variety of programs.					
2. We have a large budget that attracts the interest of senior management.					
3. Our organization has a culture of measurement and is focused on establishing a variety of measures in all functions and departments.					
4. My organization is undergoing significant change.					
5. There is pressure from senior management to measure the results of our programs.					
6. My function currently has a very low investment in measurement and evaluation.					
7. My organization has experienced more than one program disaster in the past.					
8. My department has a new leader.					
9. My team would like to be the leaders in our field.					
10. The image of our department is less than satisfactory.					
11. My clients are demanding that our processes show bottom-line results.					
12. My function competes with other functions within our organization for resources.					
13. There is increased focus on linking our process to the strategic direction of the organization.					
14. My function is a key player in change initiatives currently taking place in the organization.					
15. Our overall budget is growing and we are required to prove the bottom-line value of our processes.					
Scoring If you scored:					
15-30: You are not yet a candidate for comprehensive measurement and evaluation.					
31-45: You are not a strong candidate for comprehensive measurement and evaluation; however, it is time to start pursuing some type of evaluation process.					
46-60: You are a candidate for building skills to implement comprehensive measurement and evaluation. At this point there is no real pressure to show impact and ROI, but this is the perfect opportunity to perfect the process within the organization.					
61-75: You should already be implementing a comprehensive measurement and evaluation process, including ROI.					

In the real world, organizations invest differently in their people depending on the strategy that best supports their organization's goals and objectives. Here are a few strategies for setting that investment.

- · Let others do it.
- · Invest the minimum.
- · Invest with the rest.
- · Invest until it hurts.
- · Invest until there is a payoff.

ROI Methodology

The most documented and applied approach to measuring and evaluating learning and development programs is the ROI Methodology, which was developed by Jack Phillips in the 1970s. Since then its use has grown to include functions, industries, and sectors of all types. Grounded in research and practice, this approach serves as an umbrella that covers many other evaluation approaches. It begins with a framework for categorizing learning outcomes that are important to all stakeholders.

Evaluation Framework

Frameworks serve as a way to categorize data, and there are many different types of frameworks available to learning professionals. The classic logic model that includes inputs-activities-outputs-outcomes-impact is one such framework. The Balanced Scorecard by Kaplan and Norton is another. In the 1950s Donald Kirkpatrick completed his doctoral dissertation through which he identified four steps to training evaluation. ATD (then ASTD) subsequently published a series of articles describing these four steps. However, at that time, calculating the ROI of training was unheard of.

The five-level evaluation framework was born when Jack Phillips applied the theory of cost-benefit analysis to a cooperative education program to provide the financial outcome along with results categorized along the then four steps of training evaluation. This approach to categorizing data was initially described in the *Handbook of Training Evaluation and Measurement Methods* (1983), which was the first handbook on training evaluation published in the United States. The five-level framework captures data that follow a logical flow or chain of impact that occurs as people are involved in programs, projects, and initiatives. It moves from inputs (Level 0); to participant reaction (Level 1); learning acquisition (Level 2); application of knowledge, skill, and information (Level 3); impact to the organization, community, or other stakeholder groups (Level 4); and economic contribution or ROI (Level 5). The five-level evaluation framework, shown in Table 1-2, is the compass that points toward the right questions to ask during an evaluation.

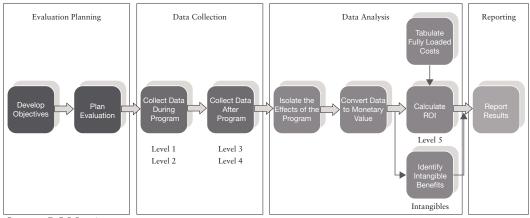
TABLE 1-2. FIVE-LEVEL EVALUATION FRAMEWORK

Levels of Evaluation	Key Questions Answered				
Level 0: Inputs and Indicators	How many people?How many hours?				
indicators	How many offerings?				
	What are the costs per person?				
Level 1:					
Reaction and • Was the program important to participants' jobs:					
Planned Action	Did the program provide new information?				
	Do participants intend to use what they learned?				
	Would participants recommend it to others?				
	• Is there room for improvement with facilitation, materials, and the environment?				
Level 2: Learning	Do participants know what they are supposed to do with what they learned?				
	 Do participants know how to apply what they learned? 				
	Do participants know next steps?				
	Are participants confident in their ability to apply what they learned?				
Level 3: • How effectively are participants applying what they learned?					
Application	 How frequently are they applying what they learned? 				
	 How much of what they learn do they apply? 				
	If they are applying what they learned, what is supporting them?				
	If they are not applying what they learned, why not?				
Level 4: Impact	So what?				
	To what extent does participant application improve measures of output,				
	quality, cost, time, customer satisfaction, job satisfaction, work habits, or innovation?				
	 How do we know it was the program that improved those measures? 				
Level 5: ROI	Do the monetary benefits of the improvement in key measures outweigh the				
	program costs?				
	BCR = Program Benefits Program Costs				
	• ROI = Net Program Benefits x 100 Program Costs				

Process Model

Process models show us each step along the way and ensure we are consistent in our approach. Models take some of the mystery out of the journey, although at each stop there are additional decisions that need to be made, requiring some thought to go into the execution of the model. Figure 1-1 shows the process model that serves as the basis for this book.

FIGURE 1-1. ROI METHODOLOGY PROCESS MODEL



Source: ROI Institute

If you can't describe what you do as a process, then you don't know what you are doing.

-W. Edwards Deming

Standards

Standards, or guiding principles, serve as guideposts during the journey. Guideposts are the rules we follow as we traverse the evaluation landscape. For example, when you come to an intersection, you need a way to decide which way to turn. The guiding principles serve that need. They ensure that regardless of the options we face, we make an informed decision about that option. There are 12 guiding principles that support the ROI Methodology.

- 1. When conducting a higher-level evaluation, collect data at lower levels.
- 2. When planning a higher-level evaluation, the previous level of evaluation is not required to be comprehensive.
- 3. When collecting and analyzing data, use only the most credible sources.
- 4. When analyzing data, select the most conservative alternatives for calculations.
- 5. Use at least one method to isolate the effects of the program or project.
- 6. If no improvement data are available for a population or from a specific source, assume that no improvement has occurred.
- 7. Adjust estimates of improvements for the potential error of the estimates.
- 8. Avoid use of extreme data items and unsupported claims when calculating ROI.
- 9. Use only the first year of annual benefits in the ROI analysis of short-term solutions.

- 10. Fully load all costs of the solution, project, or program when analyzing ROI.
- 11. Define intangible measures as measures that are purposely not converted to monetary values.
- 12. Communicate the results of the ROI Methodology to all key stakeholders.

Case Studies

An evaluation framework, process model, and set of standards provide a basis for evaluation. The theory these components posit strengthens the foundation of any evaluation practice. But until theory is put into practice, it serves no purpose. Observing what others have done—and more importantly, documenting your evaluation results—is the only way to get real value from evaluation. Case studies are similar to the points of interest you look for when on a long drive. They provide views not seen by simply following the process. Case studies describe what, why, and how organizations approach specific program evaluations. They also describe lessons learned so that improvement in the programs and the evaluation process can occur.

Implementation

While case studies demonstrate the value of learning and development programs, if you want to achieve a positive return on the evaluation investment, more has to take place. Stakeholders must buy in to the evaluation process, information from the evaluation must be put to use, employees must build capability in the evaluation process, and the evaluation team must develop guidelines and procedures to ensure a sustainable evaluation practice.

Together, the framework, process model, standards, case studies, and implementation make up a system for credible and reliable real world evaluation practice (Figure 1-2).

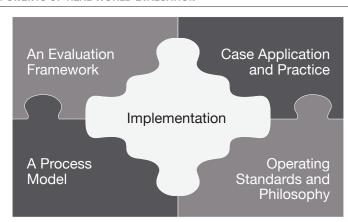


FIGURE 1-2. COMPONENTS OF REAL WORLD EVALUATION

Considerations

When planning your evaluation journey, keep in mind that it does not have to be difficult or expensive. Even when you pursue an ROI study on a major program, the investment in evaluation is minimal when compared with the investment in the program. A comprehensive measurement and evaluation practice should cost your organization no more than 3 to 5 percent of the learning and development budget. Additionally, an ROI study should cost no more than 5 to 10 percent of the program costs. The key is to be smart about how you invest your evaluation resources. For example, you do not need to evaluate all programs to Level 4 Impact and Level 5 ROI. Dedicate the higher levels of evaluation to the more expensive and strategic programs and projects. Also, when it comes to data collection, keep in mind that you need to balance accuracy and cost. Consider the following when considering data collection methods:

- type of data
- time for participant and supervisor
- costs to collect data
- · accuracy including validity and reliability of the instrument
- usefulness of data collected by additional techniques
- culture and philosophy of the organization.

Regarding data analysis, when and how to analyze data depends on the objectives of the program and the purpose of the evaluation. It is easy to overanalyze as well as under-analyze data. Consider what questions need answers and how best you can answer them given the time and cost constraints under which you are working.

A sample of 235 ROI Methodology users considers the follow	ing criteria when		
selecting programs for evaluation to impact and ROI:			
Cost of the program	52%		
 Importance of program to strategic objectives 	50%		
Executive interest in the evaluation	48%		
Visibility of the program	45%		
 Linkage of program to operational goals and issues 	29%		
Life cycle of the program	14%		
Investment of time required	7%		
Size of target audience	6%		

While we want to follow the suggested route on any journey, sometimes we have to detour. There are a variety of ways to approach evaluation and maintain agreed-upon standards. Some people want to take the most accurate route. They are willing to invest

more in order to reduce the risk associated with making an incorrect decision based on the data. Others want to take the shortest route, avoiding time and cost commitments while still getting where they need to go. This book provides a variety of tips on how to ensure credible evaluation results, even when real world barriers try to get in the way.

How to Use This Book

Real World Training Evaluation will help clarify questions you may have regarding measurement and evaluation. It will help you get past excuses for not doing it and give you the directions, tools, and resources to move forward with getting it done. Each chapter contains the following elements, which are laid out in Figure 1-3.

Route Guidance

Route guidance gives you direction for reaching your destination. Each chapter contains route information describing how you will make your way through the chapter and key issues to consider.

Suggested Route

Your journey begins with a suggested route. This section of each chapter describes key issues and ideal approaches to the different steps in the evaluation process.

Detour

Barriers often get in the way of our ideal plan to completion. When they do occur, you have to take detours without losing your way. Each chapter includes tips on how to adjust when the unexpected occurs.

Guideposts

Guideposts are the standards and guidelines that, regardless of the path you take, ensure your evaluation will generate credible and reliable data.

Point of Interest

Points of interest give you new perspective and insight. Each chapter includes a case study, research summary, or story about some issue that is important to implementing evaluation. You will see examples of how evaluation theory is put into practice.

Refuel and Recharge

Any long journey requires you to stop, refuel, and recharge. Each chapter gives you the same opportunity by offering exercises, tools, and challenges to help you think through how you and your team can apply the concepts.

Travel Guides

Travel guides provide the references you need to learn more about the topics in the chapter. These references will help you as you implement evaluation within your organization.

The Journey Begins

Measurement and evaluation is challenging, but it can be fun. No person knows more about what is going on with learning and development than the person with the data. The question is: Are you and your team willing to move forward from where you are today?

Successful evaluation requires diligence, an open mind, and acceptance that you cannot always approach measurement and evaluation within the constraints of science. Rather, you sometimes have to recognize the limitations and do the best you can while maintaining the standards of good evaluation research balanced with practical decision making. Evaluation requires critical thinking and the ability to ask tough questions and embrace tough answers.

While we assume readers have some knowledge in measurement and evaluation, even the novice will appreciate the techniques and concepts presented in the book. Take the tools, resources, and templates, and implement them in your organization. By reading each chapter, and reflecting on the examples, you will be ready to apply what you learn and lead others as they pursue real world evaluation.

FIGURE 1-3. CHAPTER ROAD MAP

