

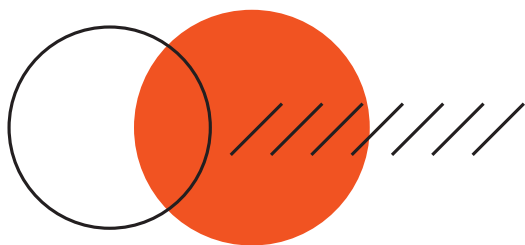


On a
Shoestring
Series



Measurement and Evaluation on a Shoestring

Alaina Szlachta, PhD



More Praise for *Measurement and Evaluation on a Shoestring*

“Alaina offers a generous smorgasbord of concepts, principles, methods, tips, and tools that L&D practitioners can use fruitfully to plan, practice, and most importantly, leverage the impact of measurement and evaluation to increase training effectiveness and value.”

—**Robert O. Brinkerhoff**, Professor Emeritus, Western Michigan University; Director of Research and Evaluation, Promote International

“Navigating the complexities of measurement and evaluation for years, I find *Measurement and Evaluation on a Shoestring* to be a breath of fresh air. The ‘impact hypothesis’ framework elegantly simplifies the process, offering a practical lens to assess training effectiveness. It’s a must-read for any L&D professional seeking to bridge the gap between program design and demonstrable results, especially when resources are limited.”

—**Laurie Roth**, Learning and Development Manager, United Heritage Credit Union

“As L&D professionals, our work matters. But how do we prove it? Within these pages, Alaina provides a refreshing and highly practical guide for getting L&D programs the attention they deserve.”

—**Chris Taylor**, CEO, Actionable.co

“What I appreciate most about *Measurement and Evaluation on a Shoestring* is its focus on working smarter (not harder) by being strategic, deliberate, and thoughtful. The guidance Alaina gives for how to measure results is actionable and achievable.”

—**Kevin M. Yates**, L&D Detective™

“Alaina’s M&E tools and resources create Cirque du Soleil-like aligned solutions that are easy to build, simple to apply, and increase training program success. This book is a must-read that cracks the code on why and how data enablement systems improve business outcomes.”

—**Kathy Sebuck**, Founder and CEO, Marchitecture

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*To the practitioners, leaders, and aspiring leaders who want to
make a difference, your passion, dedication, and unwavering
desire to do better motivated me to write this book.*

*To all the experts, theorists, researchers, and practitioners
who have come before me, this book is not possible
without your generous contributions to our field.*

*To my family and friends whose
unconditional cheerleading sustains me.*



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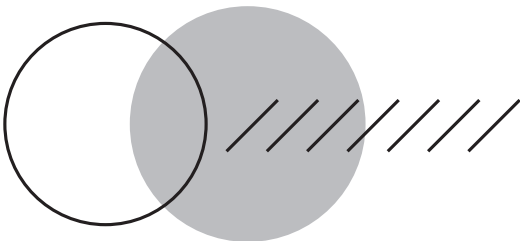
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ABOUT THE ON A SHOESTRING SERIES



ATD's On a Shoestring series helps professionals successfully execute core topics in training and talent development when facing limitations of time, money, staff, and other resources. This series was designed for practitioners who work as a department of one, for new or "accidental" trainers, instructional designers, and learning managers who need fast, inexpensive access to practical strategies that work, and those who work for small organizations or in industries that have limited training and development resources. This book will help you whether you're new to measurement and evaluation or experienced, yet find yourself regularly limited by time, organizational support, and financial resources.



Introduction

The purpose of this book is to make measurement easier. The measurement and evaluation sector is full of incredible models, resources, and thought leaders—many of whom you’ll learn more about in this book. However, these valuable assets are often underutilized—or not used at all. An interesting paradigm persists in the L&D industry. On the one hand, we all deeply desire to demonstrate the value and impact of learning in our organizations and communities. Yet, on the other hand, measurement and evaluation (M&E) are perceived as very complex, costly, time consuming, nice to have, and only quasi-essential to the L&D function. If this paradigm weren’t present, M&E would be intuitively built into every learning program. Yes, measurement and evaluation can be highly complex; however, it doesn’t need to be.

To break the barriers that overwhelm and intimidate most of us when we think about measurement and evaluation, we must simplify. We must find an easy starting place to integrate M&E into our L&D initiatives. Proceeding this way will build your confidence with measurement tools, establish a precedent (and I hope even excitement) to adopt M&E more regularly, and work toward improved measurement solutions in the future.

Measure What Matters— Or Why Measuring Matters

You’ve likely heard countless times “Measure what matters,” or “What you measure improves,” and “If you can’t measure it, you can’t manage it.” This is great advice, except most of us don’t know what to measure.

Consider this example: As I wrote this book, I was constantly managing my time. I needed to meet the deadline to complete this manuscript. I also needed to balance client work, business development, supporting my friends and family, and you know . . . include a little fun, rest, and relaxation. Following the

recommendation of an experienced writer and editor, I used a recent writing sample to calculate roughly how many words per hour I could write. This data helped me estimate how many hours per week of writing I needed to make my deadline. With that rough words-per-hour estimate, I started blocking time on my calendar to write. I'm a big fan of having weekly goals. I love the feeling of marking "Done" next to my most important weekly action items. A few weeks into the writing process, I'd proudly marked "Done" next to the action item "Write 10 hours per week." I said to myself, "Look at me. I'm measuring my progress as I write a book on measurement!" Except there was one problem. Can you guess it? I wasn't measuring what mattered. At least, not completely.

The problem with designating 10 hours per week to write and measuring my progress toward that goal was that I was only tracking my activity. I may have sat down to write 10 hours per week, but there was no guarantee I would write any words during that time. I could succumb to writer's block, distractions, and procrastination just like everyone else.

So, what should I have been tracking instead of how much time I wrote every week? Well, the answer is not what I should be tracking *instead of* hours per week. It is what I should have been tracking *in addition to* hours per week—I also needed to be tracking the product of my activity. The product is what I did within my 10 hours of writing time. In this case, it was number of words written. Luckily, I realized my measurement mistake a few weeks into the writing process. Could you imagine if three months and 120 hours of writing time passed by before I realized that I wasn't writing as many words per hour as I originally estimated? My publisher would be very upset with me!

This simple example highlights one important dynamic in M&E. While most of us think we are measuring what matters, we are usually only measuring what is easiest. Tracking how many hours I wrote every week was relatively easy, yet it was only half of the measurement equation. I also needed to track what I did, my product, or what is commonly known as *output* in measurement speak. If my desired result was to write a 50,000-word manuscript in 12 months, the full measurement equation could look like this: First, I'd estimate my words per hour. Next, I'd start tracking my weekly activity (hours of writing) and the output of that weekly activity (words written). Finally, I'd adjust the number of hours I needed to write each week to meet the deadline based on my actual weekly output. This is measuring what matters. The magic, or the benefit behind

measuring in this example, is that I can calculate accurate information about my average words per hour, which would give me a better chance of meeting my deadline. Well, so long as I also do a good job of managing writer's block, distractions, and procrastination (which are also known as *confounding variables*).

What Does It Mean to Be “On a Shoestring?”

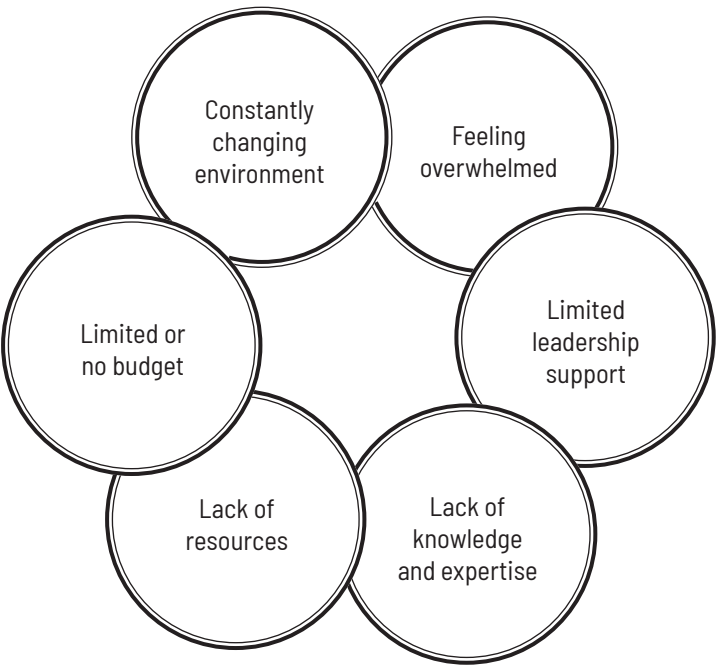
Our struggle to measure what matters can be described in a few simple words: Lack. Of. Resources. This book is included in a series featuring information, tips, and tools to support L&D professionals “on a shoestring.” Distinctly different from other topics in this series—instructional design, e-learning, and needs assessments—measurement and evaluation has historically been the underdog when it comes to resource allocation. The experience of being on a shoestring is something everyone has probably experienced at some point in their career. For many, being on a shoestring accurately describes your daily working environment. This experience means you navigate a handful of constant limitations while doing your work. Don't get me wrong; being on a shoestring is not a completely doom-and-gloom situation. Navigating limitations and still being able to do your job creates resilience, creative problem solving, and inventive thinking. As they say, the greatest innovations are born out of necessity.

What is important to know about being on a shoestring is that you aren't working with just one limitation. Instead, you're often working with overlapping limitations. If you review surveys on the state of L&D and M&E over the past 10 years—conducted by organizations such as the Association for Talent Development (ATD), Brandon Hall Group, Chief Learning Officer, Deloitte, LinkedIn Learning, LEO Learning, Watershed, Insights for Professionals, Learning Technologies Group, Mercer Mettl, and Josh Bersin—you'll notice that the reasons professionals struggle with measurement and evaluation have changed very little. Year after year, results show that lack of time, lack of support or partnership from stakeholders, limited budgets, and lack of knowledge and skills to implement measurement are key barriers to M&E. Essentially, a lack of resources.

The latest trend reports reveal six common limitations to effectively measuring and evaluating learning: constantly changing environment, feeling overwhelmed, limited leadership support, lack of knowledge and expertise, lack of resources, and limited or no budget (Figure I-1). None of these six will surprise

you. As I mentioned, the struggle with M&E has been around for decades. What can be frustrating (as it surely is to me) is that the discussion often ignores the fact that these challenges are overlapping and exist simultaneously. Therefore, solutions that address one challenge at a time won't be nearly as effective as solutions that address many overlapping challenges at once.

Figure I-1. Six Common Limitations to Effectively Measuring and Evaluating Learning



This book is written as a field guide, offering solutions to core measurement challenges and addressing the intersectional, overlapping nature of the limitations that make measurement seem just out of reach. If you've picked up this book because you are looking for simpler solutions to M&E, you feel overwhelmed by the whole idea of measurement, you are a department of one (as many L&D professionals are), or you want to expand your M&E skill set—you've found the right resource.

What Does Successful Measurement Look Like on a Shoestring?

Measurement and evaluation are processes that involve math, data, and statistics—three topics that may be your least favorite subjects. I scraped by with a C+ in high school algebra and avoided math classes as much as possible in university. Fast forward eight years, and I was teaching educational research methods to graduate students and working on a complex mixed-methods research study on culturally responsive teaching. My high school self would have laughed if she saw this in a crystal ball.

Why share this revelation? Because the elements of math, data, and statistics inherent in M&E leave most people believing that success is measured by perfection. Striving for perfection requires more time, money, and resources than we often have at our disposal. So, if we can't do it right, then why do it at all? Does this sentiment resonate with you? I always felt discouraged in my early math classes because I struggled to get answers perfectly correct—even if I understood them conceptually. Scolding from high school teachers left me thinking that math and statistics were out of reach. If a project came up that involved math or data early in my career, I would pass it off to someone I thought had more skills than I did. The reality is that I do have an objective sense for measurement and evaluation—I just needed to think about it differently. I needed to disregard perfection.

While math, data, and statistics are part of scientific processes—and yes, scientific processes require rigor, integrity, and extra degrees of thoughtfulness—they do not require perfection or even 100 percent accuracy. Scientific research inherently includes and accepts degrees of error. In fact, one of the greatest takeaways from my graduate research classes was the fact that research, measurement, and evaluation only mimic reality. Therefore, the results you get from measuring and evaluating your L&D programs will inherently feature degrees of inaccuracy. The goal is not perfection.

Success in M&E is having more information and insight than before you measured and evaluated, and having confidence that the new information has a significant degree of accuracy. With new information, you can make more informed decisions, correct course, and iterate, providing continuous improvement of your programs, processes, and procedures. With this

definition of success, we don't need to be data scientists, and we can expand our thinking and skill set to identify, collect, and reflect on the most useful data, in effect, becoming stewards of continuous improvement.

Why Measurement Matters to Me

I started my career as a community-based educator in the public health sector. I initially began teaching, and then writing curriculum, followed by managing large social change programs—with government and philanthropic funders who demanded data demonstrating the programs truly made an impact. Every program development cycle began with an M&E strategy. After all, our funding and viability depended on it! Imagine my surprise when I left the public health sector after eight years to enter the corporate training arena and quickly discovered that L&D teams measured very little and rarely demonstrated the outcomes or impacts of training.

I also quickly recognized the difference between public health and corporate training program development. Public health programs compete for funding and resources. As a result, public health professionals all use a similar program development model to demonstrate anticipated outcomes and impact. The model requires a hypothesis—a chain of evidence between the education initiative and results for the target population—before receiving a green light (or funding and resources) to develop any program.

The reason for measuring education initiatives in the public health sector is to show clear and continuous improvement in public health outcomes. What, then, is the reason for measuring adult education, professional development, and training in the corporate sector? There is a clear consensus among measurement practitioners, L&D professionals, and education leaders that the purpose of M&E is twofold. First, we must show a clear and positive relationship among learning activities, skill development, and the advancement of an organization's mission and vision. Second, we have to create data that enables L&D professionals to improve their programs continuously and purposefully—creating the most timely, useful development opportunities.

While the purpose of measuring learning may be clear, most people still aren't doing it. Recent trend reports have found that only 9 percent of professionals have measurement strategies in place to show outcomes and impact,

and 20 percent regularly use M&E to continuously improve their programs (Brandon Hall Group 2020). If professionals in our industry widely agree on the purpose and value of measurement and evaluation, why do we continue to struggle implementing M&E strategies?

Building M&E Strategies on a Shoestring

If your underlying goals for measurement and evaluation are to demonstrate the value of your work and be a steward of continuous improvement, how do you fulfill these goals with limited resources? Measuring and evaluating on a shoestring does not mean you have permission to cut corners, do things half-way, or sacrifice quality. Instead, we must be smarter and more strategic, seek simplification, and use the resources we have wisely. There are only so many types of resources at our disposal to pursue any project, measurement included. Using your resources—time, money, people power—wisely means making strategic choices about which resources to use to accomplish your goals. And, when resources are sparse, you must choose whether to build, borrow, or buy. It's no surprise that this book is organized around these three concepts.

Whether you work for a large enterprise, are a department of one, or create learning content for your own brand, you may always feel under-resourced when implementing an M&E strategy. Historically, organizations have not measured the outcomes and impacts of learning. Over the past 50 years, companies of all sizes have consistently been lackluster with measurement. Studies show that while many leaders desire to implement M&E, only between 9 and 35 percent of organizations (depending on the study) consistently measure the outcomes and impact of their learning programs (Brandon Hall Group 2020; ATD 2016). Even more glaring, of the organizations that reported conducting M&E, most of them only regularly measured one program. Our industry simply hasn't established a precedent of allocating resources to measurement and evaluation. Like many other learning and measurement practitioners, I sincerely hope this changes. Until then, we must get comfortable implementing measurement and evaluation on a shoestring.

The good news is that it's possible to measure and evaluate your L&D initiatives on a shoestring budget and with limited resources. However, there is

one requirement: changing your thinking. In the same way I expanded my career and built confidence with research, measurement, and evaluation by letting go of perfection, this book will challenge you to change your own thinking. Historically, L&D has followed an order-taker function. Orders for training come in from leaders and we fulfill them with well-designed and delivered learning opportunities. While orders for training will continue to come in throughout your career, you must adopt a different strategy in fulfilling them.

As you've likely heard from other L&D pros, training is not always the right solution for organizational problems, despite beliefs touted by organizational leaders. To be stewards of great learning and fulfill the goals of M&E on a shoestring, we need to adopt strategies to appropriately allocate resources to the training requests received. All training programs are not equal in their scope, function, and desired outcomes. Therefore, resources for both instructional design and M&E should not be equally allocated. This book will feature strategies to help you categorize and prioritize your approach to measurement and evaluation, adopt the most appropriate measurement models and tools, and establish a precedent (and I hope excitement) to demonstrate the value of learning in your organization and community.

Build, Borrow, Buy: How to Use This Book

This book won't introduce you to a new model, framework, or theory to measure and evaluate learning. Instead, it will provide tactical guidance and measurement prescriptions that help you put into practice the core concepts, models, and theories that already exist in the field. When it comes to M&E, there is not a one-size-fits-all solution. You may be more familiar with specific measurement models over others. However, that doesn't mean those familiar models are best suited for the purpose, scope, and resources available to show the outcomes, results, impact, and insights of your unique learning initiatives. In fact, leaning on familiar models might be making measurement and evaluation more difficult than it needs to be.

Throughout this book, I share shoestring success stories featuring individuals and organizations who adopted simple strategies and thoughtful tools to demonstrate the outcomes and value of their learning programs—with very

limited means. These stories feature strategies I've personally implemented throughout my career as an individual contributor, learning leader, and now educational consultant. While the current platforms, technology, and tools may change in the future, the true opportunity within each of these stories is insight into the strategic thinking associated with why and how specific tools and tactics were used.

No matter where you are currently in your career, or where your L&D work takes you in the future, there will always be times when you have limited resources, but that should never be an excuse not to implement M&E and show the outcomes and impact of your work. With limited resources you are forced to think carefully, act purposefully, and prioritize your efforts. These skills serve you no matter the size of your budget or the resources at your disposal.

While I hope you will read every chapter in this book, it's not necessary for you to sit down and read every word cover to cover. Projects, roles, and careers change constantly. I've written this book as a resource to turn to when you get "in the weeds" and need a little help from a friend (that's me) to get unstuck.

The chapters that follow are organized into three parts:

- **Build.** This part explores the fundamental components of measurement and evaluation. We'll review familiar and lesser-known measurement models and simple strategies for implementing M&E. You'll build the knowledge, perspective, and support needed to allocate your precious resources efficiently and effectively.
- **Borrow.** This part dives into methods and tactics that reduce common complexities latent in M&E and leverage novel ideas for integrating data collection into learning experience design. You'll be able to adopt time-saving strategies that borrow data you already have access to and integrate instructional and measurement design into one process.
- **Buy.** This part explores processes to help you quickly determine if buying products and hiring people to support your measurement efforts are truly worth the investment. You'll boost your confidence integrating external resources and support into your learning and measurement design strategy without breaking the bank.

In addition, don't forget to take advantage of the appendix. There you'll find more in depth measurement tools and templates (which I call "measurement prescriptions").

Let's dive in!

Recurring Elements

Throughout this book, you'll see icons marking four recurring elements:



Time Saver: This is a strategy for shaving time off a best practice.



On the Cheap: These are free or low-cost ideas and tools or suggestions for how to get funding.



Deeper Dive: These are callout boxes throughout the text saying something like "Did this whet your appetite? Here's a resource to deepen your knowledge."



Tool: This is a job aid, tool, or checklist to help you put ideas into action. You'll find tool callouts throughout the text and complete versions in the appendix.

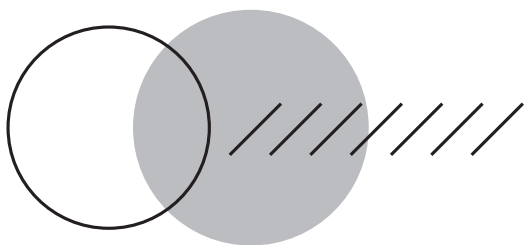
PART I BUILD

Working on a shoestring often means you are operating with less-than-ideal knowledge and less-than-ideal resources to evaluate program outcomes. The first part of this book provides the fundamental knowledge and best practices that are essential for you to measure and evaluate on a shoestring.

The world is full of measurement models and methods. It seems everyone on social media has a fresh tip to make evaluation easier. Books are coming out all the time with new insights to help you show your program's impact. Where should you begin? What strategies are most important for someone who has little time, resources, and knowledge but is still accountable for showing program outcomes? You'll find answers to these questions here.

In this part, you will discover how to:

- Make measurement easier by leveraging the hypothesis framework.
- Select the best M&E method for your specific program outcomes and organizational challenges.
- Understand the one thing that will help you overcome the core challenges to measuring and evaluating learning: data literacy.



1

Simplifying Measurement With the Impact Hypothesis

Is learning the end goal, or a strategy used to achieve your end goal? If you work in K–12 or higher education, learning is often the end goal. In this sector, grade point average (GPA), capstone projects, and performance on standardized tests are commonly used as metrics to show how much students have learned. You'll rarely track how that knowledge is being applied beyond the classroom. In K–12 and higher education contexts, knowledge acquisition is the goal. You don't need to measure or evaluate anything beyond knowledge retention.

But what if you work with L&D programs for employees, customers, or consumers? Is the end goal learning, or is learning a means to an end? Learning is not the goal. In L&D programs for employees, customers, or consumers, learning is but one tool (among many) in the organizational and community development toolbox. We can use those tools to accomplish a desired result. Many professionals providing learning and development to employees, customers, or consumers have a background as either K–12 teachers, higher-education administrators, or professors. They often have little formal training in adult education. Therefore, it likely won't come as a surprise that many L&D professionals mistakenly use learning objectives (or knowledge acquisition) as the goal of their L&D initiatives. While it's important to clarify what knowledge we want people to take away from our programs, increases

in knowledge are just one point at the beginning of a much larger chain of evidence showing the results, outcomes, and impact of those learning initiatives.

So, if we shouldn't be focusing solely on learning objectives, how should we think about measuring and evaluating learning? We should think like researchers and hypothesize everything!

One of the reasons measurement and evaluation can seem complex and overwhelming is that we haven't created a simple and clear picture of what exactly we are trying to accomplish—and why. Learning professionals lack an organizing framework. Now you might be thinking, "Wait. Alaina, I do have an organizing framework. I'm using Kirkpatrick's Four Levels of Evaluation or the ROI Methodology or the Learning-Transfer Evaluation Model (or whatever model you're using)." That is a fair point. Yet, in my experience, these models (and many other measurement methodologies) are much easier and more intuitive to implement when you first have a clear picture of what you are trying to do and why.

To that end, let me introduce you to (or perhaps, reacquaint you with) the hypothesis. Hypothesizing everything is the reason I find measurement and evaluation so much fun. Remember the feeling you had as a kid when someone handed you a gift to open? Remember how exciting it was not knowing what was in the beautifully wrapped package? Remember the thrill of tearing off the wrapping paper to discover what's inside? This is how I feel about measurement and evaluation. And, trust me—you can too!

To tap into the fun of measurement and evaluation (while getting the data you need to show the results and impact of your learning initiatives), you must lean into the reality that your learning programs may *not* achieve their goals. Did I just make your heart skip a beat? Good! This is the hard reality that we face—and why M&E is such an important part of our work. Even with the most thoughtfully designed programs, there is no guarantee our L&D initiatives will generate the intended outcomes. It's just a hypothesis. A hope. A dream. An aspiration.

This is where the fun comes in! We get to be researchers when we measure and evaluate. We get to discover new insights, uncover untold stories, and equip ourselves with information to improve our work. Yet, before all that becomes possible, you must begin with an impact hypothesis, which is your organizing framework. It is the story you hope to tell when your program is over.



TIME SAVER

The Differences Between Measurement, Evaluation, Assessment, and Research

A question I get asked a lot when I facilitate training programs and workshops is, “What is the difference between measurement, evaluation, assessment, and research?” The answer is especially important for professionals working on a shoe-string, who often feel overwhelmed by the idea of measuring and evaluating learning. Being able to define these terms and their corresponding function is incredibly helpful as you build your M&E skill set. Here’s how you can think of these four terms:

- **Measurement** is the act of collecting and analyzing data to calculate relationships among key variables involved in evaluating your L&D initiatives.
- **Evaluation** is a process that, when executed, tells you whether you achieved your L&D initiative’s goals.
- **Assessment** is a tool that provides data you can use to measure relationships among key variables. You can use assessment tools that have been created by industry leaders, such as the Clifton Strengths Finder, the Intercultural Development Inventory, or the DISC personality assessment. You can also create your own assessments, such as a survey or exam. In some instances, an assessment is simply one question that gives you qualitative or quantitative data to support your measurement needs.
- **Research** is a process undertaken to show statistically significant outcomes, which are then featured in peer-reviewed journals, clinical trials, and longitudinal studies to help others make important decisions, such as in public health or other government policies.

When measuring and evaluating learning, you can use similar thinking, strategies, and tactics as researchers. However, your goals will rarely be the same as a researcher’s. Most importantly, the level of rigor used in research methods is not the same as measuring the results of L&D initiatives. In M&E, it is perfectly fine to strive for correlations instead of causation. Keeping it simple is often the best course of action. Complexity can always be added later. If you believe complex and rigorous methods are the best M&E tactics, you may never be comfortable doing any M&E work at all.

Starting With an Impact Hypothesis to Get Stakeholder Buy-In

I'd like to tell you a story about how thinking like a researcher and hypothesizing everything not only made measurement easier for Chase Damiano—a leadership development professional who has always been passionate about showing how investments in leadership create a measurable impact—it also provided insights to get stakeholder buy-in, improve the learning experience, and expand results for future learners.

Chase was struggling to get buy-in from stakeholders to design and deliver a leadership development program focused on building delegation skills. He often heard anecdotally from newly promoted managers that they were working long hours. They found themselves doing the same work from their previous role in addition to new leadership activities. Some of these new managers even said they were so stressed they wanted to quit.

After hearing numerous compelling anecdotes, Chase's stakeholders agreed to test the leadership program with a small pilot group. Before the leadership program could be embedded into the new manager onboarding, Chase needed to show that delegation was an essential skill to help new managers work fewer hours, reduce stress, and be more optimistic about their new position. Chase was ecstatic to get permission to move forward, yet when he thought about showing that improved delegation skills would reduce working hours, reduce stress, and improve optimism, he felt defeated. "Where do I begin?" he wondered. "How will I prove this training works with no additional resources to measure and evaluate?"

Chase had a loose hypothesis: New managers were overworking, experiencing higher levels of stress, and had a negative outlook about their managerial role. Chase thought these outcomes were related to managers holding on to too many individual contributor tasks from their former role while also taking on activities in their new leadership role. After talking with a few recently promoted managers, he thought that teaching them how to delegate would solve their pain points.

This was a great start. The next step was to use an organizing framework (a hypothesis) to clarify what Chase wanted to do and why. By formalizing his hypothesis, he could figure out how to evaluate the pilot leadership program and show stakeholders the results they wanted to see. Essentially, he could

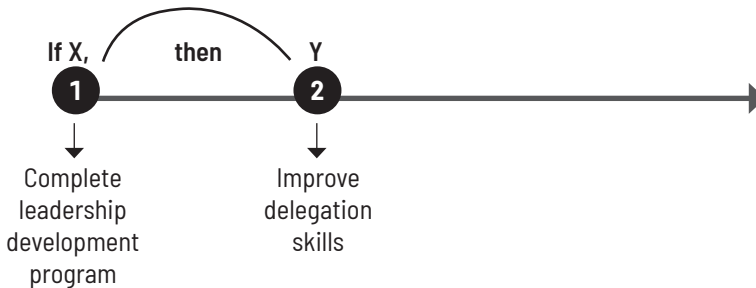
determine what data he needed to collect to prove whether his hypothesis was correct. Here's where I could help.

On a whiteboard I wrote down, "If X, then Y." This formula is something I started incorporating into my practice after reading about it in John Boulmetis and Phyllis Dutwin's 2011 book *The ABCs of Evaluation*. It's the first step to creating an evaluation strategy.

X and Y are the first two points in the chain of evidence necessary to prove a hypothesis. For Chase, X was his leadership program, while Y represented the change in knowledge, skills, and mindset (or attitude) he wanted the leadership program to influence.

So, for Chase's leadership program, the statement would read, "If X (managers complete the leadership development program), then Y (they will improve their delegation skills)." See Figure 1-1 for a visual.

Figure 1-1. The First Link in the Chain of Evidence



But Chase had to continue one step further: "If X, then Y, then Z." Z is the "so what" part of the hypothesis, as in, if employees increase their delegation skills, then so what? Z represents the immediate outcomes Chase expected to see if managers were better at delegation.

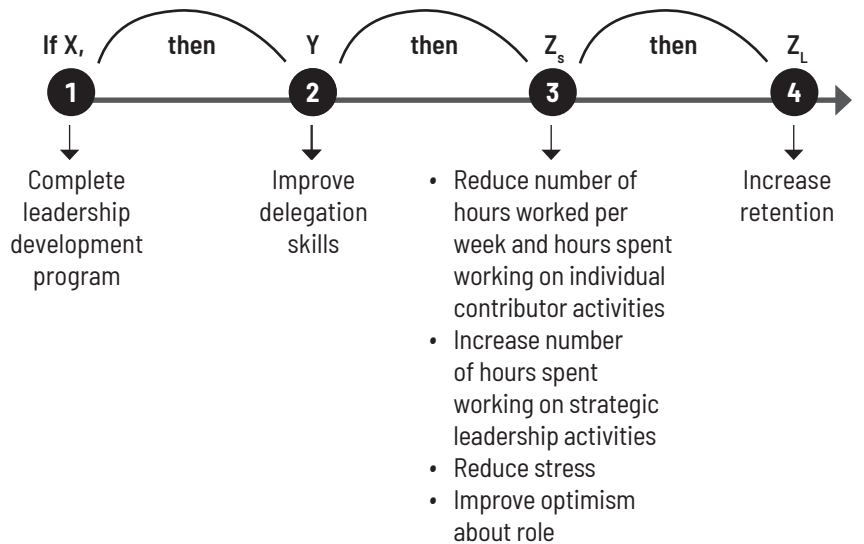
In the short-term (immediately after increasing their delegation skills), Chase thought that managers would work fewer hours per week, be less stressed, and be more optimistic about their role. This was the short-term answer to the question, "So what?" (Z_s). However, there is one final point in the chain of evidence—a long-term answer to the question, "So what?" (Z_L). So, "If Z_s , then Z_L ."

After some thought about the longer-term outcomes of new managers working less and being less stressed and more optimistic, Chase posited that new managers would spend more time working on strategic leadership activities and

less time on individual contributor tasks. As a result, they would be more likely to stay in their role longer than if they hadn't improved their ability to delegate.

Now, Chase could complete the organizing framework showing what the leadership program was designed to do—and why (Figure 1-2).

Figure 1-2. Completing the Chain of Evidence



This organizing framework was the strategy Chase needed to show stakeholders the importance of delegation skills in the overall approach to onboarding and retaining new managers.

With a clear hypothesis in place, his next step was to prove it. I'll tell you how Chase's story turned out at the end of this chapter, but before that, let's explore how you can apply the hypothesis framework to your L&D initiatives.



TOOL

Impact Hypothesis Framework

The appendix includes a blank hypothesis framework that you can use.

Applying the Impact Hypothesis to Your L&D Initiatives

I know what you may be thinking. No one in a corporate learning environment will be given the green light to use precious time to prove a hypothesis before developing a training program. I agree with you. Corporate working environments move very quickly, and not everyone has the time to consistently do pilot testing like Chase did and like I've done in the public health sector. You can, however, use the hypothesis framework to organize your thinking. Then, you can show how learning programs are intended to inform and change skills and attitudes, and link those changes to short-term and long-term outcomes. Even better, you can leverage these hypotheses in several ways to not only improve each individual program, but to adapt your overall learning strategy.

When I speak at conferences and facilitate workshops to help L&D professionals build their M&E skills, I often hear people say:

“Measurement and evaluation is so time consuming. As soon as we get our measurement systems up and running, something changes and the program we are evaluating is no longer a priority. We know M&E is important, yet how are we supposed to show the outcomes of our programs when the organization's priorities are constantly changing?”

Does this resonate with you? My own research, and research done by other M&E professionals such as Robert Brinkerhoff, reveals that having a complementary and supportive environment determines 80 percent of a learning initiative's success (Mooney and Brinkerhoff 2008). Quality content does not determine success; it's important, but to a lesser degree than you may think. Learner satisfaction also does not determine success. Instead, success depends on how well your organization's working environment supports and reinforces new skills learned in training—and learners agree! According to a 2024 report from TalentLMS and Vyond on what employees want in their workplace learning experience, 80 percent of employees said personalization was important to them.

Personalization means designing learning opportunities to meet learners where they are literally (their workplace environment) and experientially

(accounting for their experience level and existing skill set). Environment also has a significant influence on the success of your M&E strategies. If your working environment and organization's priorities are constantly changing, your M&E strategies may suffer, or worse, be a waste of time and resources. This is a reality you will likely never escape because the world is changing at an incredibly fast pace. For businesses to remain viable, they must also change and adapt. Therefore, you must be agile with your L&D and M&E strategies. What is the one thing you can do to be agile with measurement and evaluation? Hypothesize everything!



DEEPER DIVE

The Importance of the Learning Environment

For more information, check out the 2008 book *Courageous Training* by Tim Mooney and Robert O. Brinkerhoff. Read chapter 9, "Diary of a CLO," to learn how Children's Healthcare of Atlanta, Georgia, discovered that having the right environment was one of the most significant contributors to their program's success.

Using Hypotheses to Be Agile in a Changing Work Environment

Imagine it's Monday morning. You're sitting in a conference room with your team ready for the weekly kick-off meeting. In walks your boss, who says, "Well team, we must make another pivot. Our stakeholders want to launch a new affiliate partnership program. The goals are to improve our visibility in the marketplace, improve customer retention, and increase conversion rates with prospective customers. What learning initiatives do we currently have that are designed to influence these key performance indicators (KPIs)? We want to integrate the new affiliate partnership strategy into the programs we're currently running."

If you were sitting in that meeting, what would you do to find all the current learning programs designed to increase those specific KPIs? How difficult would it be for you, your team, or your team leader? Perhaps you already have systems in place to identify which learning initiatives are designed to influence current KPIs. If so, congratulations! You are on the right track. However,

if you are among the many learning professionals working on a shoestring—with limited resources and less than ideal experience with measurement and evaluation—you may have no idea how to answer this question. That’s OK too. You’re in good company.

Hypothesizing everything is the solution. And it’s easier than you might think.

Let’s return to the Monday morning meeting. Your boss asks, “What learning initiatives do we currently have that are designed to influence these KPIs?” In response, you could say, “Let me take a look at our learning strategy tracker” (Table 1-1).

Table 1-1. A Learning Strategy Tracker

Status	Program Name	Target Audience	KSA Goal	Short-Term Goal	Long-Term Goal
Active	New Sales Leader Onboarding	Newly hired sales leaders	Demonstrate 80% or higher competency practicing the sales closing process	Close 15% of sales calls within their first 90 days	100% of new sales team members achieve a 90-day time to value



TOOL

Learning Strategy Tracker

The appendix includes a blank template you can use as inspiration for your learning strategy tracker, although, you’ll want to digitize it for easy searchability.

Your learning strategy tracker spreadsheet ideally includes every one of your active, currently in development, and recently completed learning initiatives for the year. You should also record these data points for each program:

- **Target audience**—the people you’re developing the initiative for
- **KSA goals**—the targeted changes in knowledge, skills, and attitudes

- **Short-term goals**—the targeted changes in performance your training program (if successful) should immediately influence
- **Long-term goals**—the targeted changes in the business’s strategic KPIs

In the Monday morning meeting example, you could sort the data by the short-term outcomes column and search for the relevant performance-specific KPIs, such as resolving customer complaint calls within three minutes, achieving a 100 percent accuracy rate with new client intake interactions, or decreasing error rates to 25 percent or lower. Or, you could sort the data by long-term strategic business KPIs, such as improving employee or customer retention, increasing revenue, or expanding market share.

Then, you can tell your boss, “I see there are three programs we can adapt right away: New Sales Leader Onboarding, New Sales Team Onboarding, and the Monthly Sales Enablement Series. These programs target our entire sales team (new and tenured, leadership, and individual contributors). Who else needs to know about this new affiliate partnership program? What is the best way to train them or communicate these updates?”

That entire interaction could take less than 60 seconds, and it’s all made possible by a simple organizing framework—the hypothesis.

Another great reason for creating a hypothesis for every learning program, and housing that information in a learning strategy tracker, is adapting to changing priorities. Here is a common scenario: Yesterday, three KPIs were the driving force of your business. Today, those three KPIs have been replaced by something else. What do you do with the learning strategy and programs you built around yesterday’s KPIs?

The *2022 Workplace Learning Trends Report* from TalentLMS and the Society for Human Resource Management (SHRM) found two common barriers to training effectiveness: outdated programs and irrelevant content. You can imagine how changing priorities play a role in these barriers.

It can be difficult to respond appropriately to change if you don’t have a clear picture of what you’re doing and why. Creating a hypothesis for every learning program and storing that information in an easily accessible location (like a collaborative digital spreadsheet) gives you the ability to be agile when facing change. Your learning strategy tracker becomes a prioritization tool. When priorities change, you can search for learning programs designed to influence deprioritized KPIs, and then ask yourself:

- Are these programs still relevant?
- How do you adapt your current and future learning opportunities to meet new priorities?

When stakeholders ask you to create new learning programs, you can ask them these questions as part of your training request intake process:

- What KPIs do you want this program to influence?
- If you're unsure what KPIs this program should influence, who can you talk to for clarity on the program's intended performance and strategic business goals before moving forward?
- My team is currently at capacity and prioritizing *[insert specific]* programs that are designed to influence *[insert specific]* outcomes. Which program would you like us to deprioritize so we can take on this new request?
- Before building a new program, can I explore what programs are already designed to influence those KPIs and decide whether a new program is necessary?

The L&D function has historically been an underused organization development asset. Doing great work often requires that we swim upstream—constantly navigating floating debris, hidden rocks, and other obstacles. The most undesirable circumstance is an unsupportive organizational environment. Current and historical trends indicate this is unlikely to change. In a 2022 Mercer Mettl study, 38 percent of learning leaders said, “The absence of a structured organizational focus and strategy” is the greatest challenge to doing great L&D work. Meanwhile, 41 percent of L&D professionals cited competing organizational priorities as the reason they weren't measuring or evaluating learning (Lea and Ells 2022). Another 2023 trend report from LinkedIn Learning found that only half of learning professionals worked closely with executive leaders as they developed learning initiatives. Finally, the most depressing trend of all is that 50 percent of HR leaders reported that measuring and evaluating learning was not a top priority for their stakeholders (Insights for Professionals 2023).

I don't think any of these statistics will come as a surprise to you. If you've been working in the L&D function as long as I have—or perhaps even longer—this is likely your reality. So, if you're looking to collaborate more with stakeholders and encourage them prioritize M&E, a hypothesis for every learning program creates a compelling starting place to build those strategic partnerships.

I hope this inspires you to go forth and create a hypothesis for each of your learning initiatives and build a learning strategy tracker immediately. Change, clarity, and improved results await you once you've completed this project!

Brainstorming Possible Metrics by Creating a Hypothesis

True or false? All data is good data. You've probably heard the saying, "garbage in, garbage out." This means if you are working with bad data, you'll also end up with bad results. So, is all data good? No. A common challenge among learning professionals is determining the most appropriate metrics to evaluate learning. The most common metrics used in the industry are learner satisfaction rate, program completion rate, net promoter score, and knowledge increases. These metrics may be common, but that doesn't mean they are the best for evaluating learning. In fact, they tell you absolutely nothing about skill development, performance improvement, or application of new knowledge on the job.

The most appropriate metrics are the ones that tell you whether the learning program influenced progress in the way you desired. What can you do to find these metrics? Create a hypothesis.

Let's return to Chase. Once he created his hypothesis (that new managers who practice delegation are going to feel more optimistic about their work, work less hours, and stay longer in their role), he needed to prove it. He needed to choose the best data to test his hypothesis.

Chase planned to assess changes in managers' delegation practices using simulations and projects and created a rubric to evaluate performance growth. He asked them at four key points before, during, and after the program to rate their level of stress, how many hours they work every week, and how likely they were to stay in their new role. This gave him an outline of the metrics to evaluate his programs' effectiveness, which were:

- Delegation practices
- Optimism
- Weekly hours worked
- Likelihood of staying in the manager role

These metrics also happen to be listed in his hypothesis statement under the short- and long-term outcomes. In many cases, your short- and long-term

outcomes may also be the direct metrics you'll use to evaluate your program, but not always. To determine if your short- and long-term outcomes can also be your metrics, ask yourself, "How do I measure that?"

For Chase, his first short-term outcome was to reduce the number of working hours per week. He could measure that by asking people to look at their calendars and calculate the approximate number of hours worked in the past week. Determining how to measure the change in number of hours worked each week and the percentage of time worked in leadership versus on individual contributor activities is easy because employees can look at their calendars (a tangible asset) to formulate an accurate answer. However, what if you want to measure something less tangible, like improved relationships?

Another short-term outcome might be for new managers to build stronger relationships with their direct reports. There are many ways to measure that. In this example, strong relationships are an outcome and not a metric. To get to an appropriate metric, Chase would need to dig deeper by asking a follow up question, such as, "What are the indicators that relationships between managers and direct reports are strong?" From that list, Chase could select one or more metrics that are best suited for his context.

Chase's story shows, yet again, the power of a hypothesis. Whether or not the outcomes are the metrics to evaluate your learning program—you still look to the outcomes as the first step in determining your metrics. And, you wouldn't have any clear outcomes without a complete hypothesis.

Follow these steps to translate your outcomes into metrics:

1. List your short- and long-term outcomes.
2. For each outcome, ask yourself, "How do I measure that?"
3. If you can easily come up with a way to realistically measure the outcome, then the outcome is a metric.
4. If you don't know how to measure the outcome, or if there are many ways to measure it, then your outcome is an outcome. In this case, you must dig deeper to find appropriate metrics. Ask yourself, "What are the indicators that (the outcome) is present?"
5. For each item on your list of indicators, ask yourself, "How do I measure that?"
6. Once you can easily come up with a realistic measurement solution, you'll have arrived at your metrics.

So, why is Chase's case study an example of a shoestring success story? Using the hypothesis framework saved him time when developing the new manager training program and evaluating its effectiveness. Chase was able to add what he thought would be a game changing development opportunity for new managers at his company. To get buy-in from stakeholders he had only one shot to show the program's impact.

Going into this project with a clear hypothesis of what he was doing and why kept him focused. Remember, Chase hadn't yet developed the new manager training program. He not only had to design and deliver the pilot program, he also had to evaluate it. Thanks to his clear hypothesis that practicing delegation skills would lead to reduced time spent on individual contributor activities and increased time spent on manager-level activities, Chase was able to design his learning experience around those core concepts. New training programs often include too much information, and it takes time to refine them to the optimal ratio of information, practice, and social learning. Chase didn't have time to waste, so he centered the information, practice, and social learning around how to delegate individual contributor activities.

In the end, Chase's pilot program demonstrated that participants who completed the practice activities with an average or above performance score saw the highest increases in time spent on manager-level activities and largest decreases on time spent on individual contributor activities. While data from the pilot evaluation did not prove that new managers reduced the number of hours working each week, it did show that they felt more optimistic in their roles overall. Chase's delegation training program is now offered on a quarterly basis to new managers at his company.

A Shoestring Summary

The most important thing we can do to measure and evaluate program outcomes on a shoestring is to start somewhere that is exciting and accessible. While each item in this shoestring chapter summary is useful and will improve your ability to capture program outcomes, results, or impact, doing everything on this list may seem overwhelming. If you can only do one thing, start with number 1, and add more complexity later.

1. **Create a hypothesis.** In this chapter, I encouraged you to hypothesize everything. That may be your end goal, but it is surely not your

starting place. Instead, I suggest you hypothesize *something*. Pick one learning initiative, a new or old one. Use the hypothesis to clarify what you are doing and why and create your measurement strategy. You could create a hypothesis for one of your flagship learning programs (often a leadership development program or onboarding program) to help validate and solidify what you are doing and why. Perhaps you can create or refine the existing evaluation strategy for your flagship program. Start somewhere. Start with one hypothesis.

2. **Share the hypothesis framework with your L&D team.** Once you've made a loose hypothesis for the learning initiative, share it with your team. If you have an example hypothesis in hand, it is easier to share the value of the hypothesis framework. Ideally you could enroll other members of your team to adopt this framework and create hypotheses for other important learning initiatives.
3. **Create a learning strategy tracker.** Maybe you only have one or two initiatives listed. This is a great starting place. Add more initiatives as time or team-member support allows.
4. **Share the learning strategy tracker with your L&D team.** This resource is useless if it's not adopted by your entire department. The learning strategy tracker gives all members of your team equal visibility into what you are doing and why for every learning initiative. Your team can be more agile, and you'll ultimately be better able to support your business through learning.
5. **Brainstorm your metrics.** Your goal is to have one to three metrics for each outcome. More is not always better! Keep it simple.

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An academic turned entrepreneur, **Alaina Szlachta, PhD**, is the founder of By Design Development Solutions, a consulting firm specializing in data enablement. Drawing on her background as a researcher and public health educator, she partners with learning and operations teams to integrate measurement and evaluation systems into their daily practices, providing continuous feedback loops that enhance quality, efficiency, and profitability.

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When not revolutionizing data practices, Alaina can be found exploring her adopted hometown of Austin, Texas, where she embraces an active lifestyle, running and kayaking around the scenic Lady Bird Lake.

To learn more about Alaina and to sign up to her newsletter The Weekly Measure, visit dralainaszlachta.com.

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The Association for Talent Development (ATD) is the world's largest association dedicated to those who develop talent in organizations. Serving a global community of members, customers, and international business partners in more than 100 countries, ATD champions the importance of learning and training by setting standards for the talent development profession.

Our customers and members work in public and private organizations in every industry sector. Since ATD was founded in 1943, the talent development field has expanded significantly to meet the needs of global businesses and emerging industries. Through the Talent Development Capability Model, education courses, certifications and credentials, memberships, industry-leading events, research, and publications, we help talent development professionals build their personal, professional, and organizational capabilities to meet new business demands with maximum impact and effectiveness.

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