

MINDFUL HABITS FOR 7 LEAN PRACTICES



By Joseph H. Anderson and Todd Hudson

"I hadn't thought of it before, but there really is a tremendous connection between Lean and mindfulness. This is great!"

~ Tona Brewer, Director of Global Talent Management, Blount International



"Inspiring! I'm excited to apply and retry lean activities with this new lens. A modern and needed representation of 'Respect for People' in Lean! This is something special that I will be sharing with others."

~ Dan DiCamillo, Technology Manager, Getty Images



"I love this book!"

~ Jane Gregg, Leadership Development Consultant in a Lean healthcare organization



"I really enjoyed this combination of practices...peanut butter and chocolate for sure! This book produces a good hangover. I've been trying mindfulness on all sorts of other processes and interactions."

~ Michelle Rose, Corporate HR Director, United States Bakery

About the Authors

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Joe Anderson is all about getting things done. With 30 years of leadership experience in technology companies, Joe has mastered the art of fixing broken teams. He knows how to bring people together to work effectively and deliver results.

Joe brings a remarkable depth and wealth of experience in creating collaborative unity to his work. Twenty years of singing and teaching Gregorian chant gives him unique insight into building high-functioning relationships and informs his approach to fine tuning technology teams.

In 2017 Joe launched his own consulting practice to share solutions that work. His approach is to weave skills like mindfulness and emotional intelligence into day-to-day practices like Lean, Agile, and DevOps. Joe trains teams in attention, awareness, and commitment, with the goal of improving effectiveness and creating a healthy culture. It's the fastest path to successful technology transformation initiatives! Organizations Joe has worked with include the University of Washington, Boeing, Getty Images, and Alaska Airlines.

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While managing operations for large international companies, Todd quickly realized that one of the biggest obstacles to organizational success is ineffective knowledge transfer.

A Lean Six Sigma practitioner since 1987, he'd always been a big fan of innovation and continuous improvement, so he began experimenting with applying Lean methods to knowledge transfer and training.

His results surpassed his wildest expectations, creating millions of dollars in savings and loss prevention as well as unimagined levels of productivity, safety and workforce happiness. In 2003 he founded the Maverick Institute to bring his Lean Knowledge Transfer innovations to organizations of all sizes, from the Fortune 100 to mid-sized and startups as well as not-for-profits, universities and hospitals.

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TABLE OF CONTENTS

<u>A Lean Tale</u>	2
<u>Introduction</u>	3
<u>Gemba Walk</u>	9
<u>Value Stream Mapping</u>	17
<u>5S</u>	22
<u>Five Whys</u>	32
<u>Plan-Do-Study-Act Cycle</u>	38
<u>Experimentation</u>	43
<u>Standup Meetings</u>	50
<u>Where Do You Go From Here?</u>	56
<u>One Last Bit of Advice</u>	57
<u>Acknowledgements</u>	58
<u>Contact the Authors!</u>	59

A Lean Tale

Bob, the lead safety officer for a major laboratory, plunked himself down in his office chair, put both elbows on his desk and put his head in his hands. “This is going to earn us a big, ugly fine.”

“Sure is,” said Rhonda, the lab’s principal investigator, who had delivered the bad news. “That waste was incorrectly stored there for almost a year. Even the inspectors looked shocked when they discovered the unmarked container and realized the full extent of the violation.”

She looked at the calendar on the wall. “And the team performed a 5S six months ago. You’d think they’d have found the container then.”

“But how could this happen?” Bob said. “We tout ourselves as a ‘Lean company’ that takes continuous improvement seriously. I’ve lost count of the number of hours I’ve spent in Lean training of one kind or another. Every wall is plastered with huddle boards and metric charts. The hallways and labs are striped like highways. So much for Lean.”

“Well, hold on there,” Rhonda said. “Remember how things were before Lean? We’ve made huge strides.”

Bob looked up from his hands. “Yeah, but not recently.”

“No, not recently. We’ve clearly gotten complacent. I’m embarrassed to admit it but I haven’t attended the morning stand up in a while. I didn’t think I was adding very much anymore. It was going well; people were handling things.”

Bob nodded in agreement. “My gemba walks have been pretty lame. I think I’m staring at my phone half the time. I just don’t seem to have the mindspace for it these days.”

INTRODUCTION

Why Todd and Joe Wrote This Book

We met at a conference in the fall of 2017. Todd was leading a workshop on value stream mapping for learning and development teams and Joe was an attendee. We got to talking afterward about the unexpected and wonderful connections between mindfulness and Lean. This book is the result of our ongoing conversations.

We wrote this book because we believe two things:

1. Lean is a powerful framework and a set of tools that help teams of people deliver more value to their customers with less waste, and have more fun and satisfaction while doing so.
2. Lean practice is more than just blindly applying tools and techniques. These can improve your business performance, but they will not transform your organization by themselves. Going through the motions is not enough. Lean is transformational when there is a shift in awareness, not just in behavior.

The term we use in this book to describe this shift in awareness is “mindfulness.” Mindfulness is a simple and easily accessible practice. We think you’ll find a lot of value in applying the principles of mindfulness—like present-moment awareness and taking a curious, open attitude—to Lean practice. Throughout the book we’ll show you connections between specific Lean activities and mindfulness practices.

Openness and curiosity means that you engage in a Lean activity (maybe one you’ve done dozens of times) as though you’re doing it for the first time—and you learn something new every time. Rather than just “asking why five times (well, maybe four or just three this time)” or “walking the gemba (again...sigh),” you’re approaching the challenges and opportunities in front of you with genuine interest and a sense of adventure. Not only will this yield the best results (reduced waste, increased customer value, and more), you’ll have a lot more fun and be a happier person.

Who Can Benefit From This Book (and Who Can't)

You'll find this book most helpful if you have been practicing Lean in your organization for more than a year or two. Your implementation is underway, you have multiple improvement teams working problems simultaneously and you're seeing good results, but not the great results you'd hoped for. People are doing the activities, but it feels like they're cramming them into their other work. If that's your story, we think our mindfulness perspective will be really helpful.

You'll also find this book helpful if you've been thinking about and studying Lean and your organization is considering starting a practice. The mindfulness aspects of Lean are important to consider and may influence your implementation. In Lean circles, the implementation failure rate that's often bandied about is 70%. There's no exact number out there, but it's high. And those failures don't happen because people can't ask why five times or walk around the nursing unit. It's because they won't take the time to do the practice thoughtfully and, therefore, don't see the waste and opportunities around them. The specific mindfulness concepts and practices we talk about here are simple and straightforward, and will jumpstart your practice by helping novice practitioners develop new attitudes more quickly.

This book is **NOT** for you if you are looking for a basic introduction to Lean. If that's what you want, classic works like [The Toyota Way](#) and [Lean Thinking](#) are a good place to start.

This book also is not for you if you're involved in a Lean implementation that is in trouble. You'll need more help than we can provide in this little book. Lean implementations fail because of significant leadership or cultural problems. Although mindfulness helps (it always helps!), it's not going to be enough to make things right. We are not fans of the idea that you use mindfulness to help you chill out and put up with a dysfunctional or abusive situation. If your implementation is a mess, get the help you need on the organizational level (or find yourself another organization!).

How This Book is Structured

We've focused on seven key Lean practices in this book. You can apply the same mindfulness principles to any Lean practice, but we think these seven are especially valuable.

In each chapter, we'll define the practice and give examples of how it brings benefit when practiced mindfully (there are a few mindless examples in there too!). At the end of each chapter we offer concrete suggestions for how you can bring mindfulness to that Lean practice. Choose one or two of these and try them out – if they're working you can always do more.

You can go through the practices in sequence or dive in anywhere. Each chapter stands on its own and can help you where you need it most.

Here's a quick overview of the contents of each chapter:

Gemba Walk: Observing work activities where and when they happen is greatly improved by the quality of your attention.

Value Stream Mapping: This powerful practice of identifying which activities do and don't contribute to delivering value is made much more vivid and effective when you treat it as an exercise in empathy and interconnectedness.

5S: Keeping work areas organized and orderly is closely tied to the attentiveness, consistency and relaxed openness that mindfulness brings.

Five Whys: Asking "why?" five times in order to get to root cause, and not just a confirmation of your own assumptions, requires asking with openness and curiosity.

Plan-Do-Study-Act: Each phase of this cycle needs to be conducted with awareness and attention in order to be effective. You need to note what arises from each activity,

and be conscious of which steps come next so you don't over- or underinvest in the previous step.

Experimentation: Conducting an experiment is one thing. Conducting it without assumptions and with a curious open mindset is something else again.

Standup Meetings: Regular check-ins quickly grow stale. Mindfulness provides the tools to keep them vibrant and productive over the long haul.

What Is Mindfulness?

If you love Lean, we think you'll love mindfulness. You'll get the most out of mindful habits by using them in the context of the work you do every day. That's why most of what we have to say about mindfulness happens when we talk about its application to specific Lean practices. To get you started, here's a simple and widely used definition:

Mindfulness is awareness cultivated by paying attention in a sustained and particular way: on purpose, in the present moment and non-judgmentally.¹

The key, which we'll come back to over and over again throughout this book, is present-moment, non-judgmental awareness that's curious and open.

Practicing mindfulness can take a wide variety of more or less structured forms, but it all boils down to three simple steps:

1. Bring your attention to any object in your field of awareness with curiosity and openness.
2. Notice when your attention wanders away.
3. Bring your attention back to the object.

¹ Jon Kabat-Zinn, [*Mindfulness for Beginners*](#). Kabat-Zinn is the leading exponent of contemporary secular mindfulness practice, having studied and taught it through his work at the University of Massachusetts Medical School since the 1970s.

There are three fundamental benefits to engaging in this simple process. First, you improve the quality of your attention. It's more stable, more controlled, and more efficient. Second, you improve your ability to perceive the whole field of your awareness, not just whatever thought is obsessing you at the moment. And third, you have a better ability to adopt an experimental mindset: noticing what happens with curiosity and openness.

As we hope to show throughout this book, these benefits – improved attention, improved awareness, an experimental mindset – are the key to realizing the potential of many Lean practices. We won't go into more depth here because the whole book applies these simple principles to specific Lean practices with specific techniques you can use to make those practices more alive and effective.

In fact, what ties Lean and mindfulness together so nicely is that they are both **practices**. Like training for a sport or learning a musical instrument, mindfulness is a skill that's cultivated through repeated and sustained effort over time. And Lean is much the same way. You build Lean "muscles" by doing Lean all the time, not just once in a while. Practicing mindfulness and Lean together has a "virtuous circle" benefit. The more you practice mindfulness, the better your Lean practice. The more you practice Lean, the more space and clarity you can achieve in your work, making mindfulness more readily available.

Core Lean Principles and Mindfulness

Lean and mindfulness share a common root in the principles of paying attention and respecting what is arising in the moment. It's not rocket science to conclude that they have much in common when we get to the details. The twin pillars of the Toyota Production System (TPS aka Lean) help underline this point:

Continuous improvement is a commitment to constantly investigate what is happening to see how it can be made better. The first step to improvement is to see what's actually happening today, and mindfulness is incredibly valuable for that purpose. You can't make something better if your assumptions or your judgments or your distractions keep you from seeing what it is with clarity.

Respect for people acknowledges that individuals and their interactions are at the core of any process improvement. An improvement that disregards the people doing the work won't stand for long. The mindfulness practices of empathy and compassion are solid and learnable skills that can provide the foundation for respect.

Lean and Mindfulness Across Industries—and Cultures

We wrote this book based on our experiences working in a variety of industries. We've woven examples from these worlds into what follows. But in addition to the definite differences in processes and business needs we've noticed, we've also seen that there are some stark cultural differences between these domains: the auto factory floor is different from the hospital wing is different from the technology campus.

But the really great thing about mindfulness and Lean is that they are culture agnostic. You don't need to be a particularly mellow or calm person to do mindfulness really well. Mindfulness is not a personality transplant but rather a way for you to engage with your personality, just as it is, with more effectiveness and a better quality of attention. In the same way, Lean principles and methods, given some necessary tweaks to accommodate business realities, translate extremely well across disciplines, from the automotive industry where it got its start to technology, healthcare, and beyond.

GEMBA WALK

Gemba is a Japanese word that translates as “the real place” and in the context of business means “where work is done” or “where value is created.” Walking the gemba is a process of going to where work is being done with intent of assessing how well processes (not people) are performing, discovering what obstacles (wastes) are thwarting people, understanding the relationships between steps in a value stream, or uncovering root causes of problems.

In this chapter, we’ll cover the following topics:

- Use All Your Senses
- Look for Leverage
- Gemba and Technology Development
- Gemba and Mindfulness
- How to Do a Mindful Gemba Walk

Let’s take a walk!

Use All Your Senses

Taiichi Ohno, the founder of the Toyota Production System (TPS), famously had people stand in a chalk circle for hours keenly observing what was happening around them.

Acquiring firsthand knowledge means using all your senses:

- What do you see?
 - ✓ Are people staying still or moving from one place to another frequently?
 - ✓ Is the environment cluttered or neat and clean? Do people have clear paths to move or are they fighting what’s around them?

- What do you hear?
 - ✓ What are the ambient sounds, for example, buzzing, squealing, air flow. Are they conducive to work?
 - ✓ Are people talking normally or shouting?
 - ✓ Are there jarring sounds that interrupt people's concentration and work?

- What do you smell?
 - ✓ What are the ambient smells and are they conducive to work?
 - ✓ Do smells indicate problems, hazards, and even dangers, e.g., overuse, imminent failure, leaks?

- What do you feel?
 - ✓ Are there ambient vibrations and are they conducive to work?
 - ✓ Is the air temperature too hot or too cold?
 - ✓ Is there air flow that's distracting or causing problems?

In addition to taking in what your senses perceive, it's important to observe and feel what happens as you walk the gembu and talk with people. Specifically:

- What are your **OWN** emotions and feelings?
 - ✓ Are you looking forward to walking the gembu or dreading it?
 - ✓ Are you comfortable in a particular area or in a hurry to leave?
 - ✓ Does what you experience there make you happy, angry, or confused?

- What do you sense in others?
 - ✓ Does the atmosphere seem to be friendly or full of stress?

- ✓ What do you observe in people's body language? Does it show you happiness or unhappiness?
- How do people react to you?
 - ✓ Are they unpleasantly surprised or happy to see you?
 - ✓ Are you only hearing "good news" as opposed to problems?
- How are you interacting with people?
 - ✓ Are you listening or talking? Asking questions or giving direction?
 - ✓ Do you talk to the same people again and again? Do you avoid talking to some people? Are you only interacting with a specific gender or race?

You're not asking "Why?" yet. You're not looking to blame. You're not jumping to conclusions. You're there to experience what's going on and deepen your understanding of the situation and your relationship with it.

As you walk the gemba, do you see evidence that people know that they are adding value? If this is where the value is added, people should be able to take pride, even joy, in their work.

Todd: *Early on in my tenure as a manufacturing manager in a silicon wafer fab, when I walked the gemba I saw people not following cleanroom protocols. Rather than get angry and dress people down, I just observed and asked myself "Why don't they know that what they're doing is hurting the product, our customers and ultimately ourselves?" Once I was back in my office reflecting on my experience, I realized that question pointed straight back at me, the manager. "Why don't they know, Todd?"*

Look for Leverage

The success of a gemba walk shouldn't be measured by the quantity of findings, problems, or ideas. You're not trying to compile the biggest list ever.

Rather, you're looking for themes that tie your key observations and experiences together. While you're not rushing to judgment, you are looking for leverage to make important, fundamental system changes that cascade to further improvements.

For example, while walking a value stream you might observe boxes and cartons scattered about in one area, see workbenches, desks, and even the floors strewn with tools in another, and hear people yelling about where things are in a third. Clearly, a theme is disorganization and an initiative like 5S might bring many benefits to the system as a whole.

Todd: *I've toured a lot of facilities in my career and have learned that the physical cleanliness and orderliness of a plant speaks volumes about the leadership, employee morale, and quality of the processes at work. Sloppy spaces with old pizza crusts on the floor (I'm not kidding) are the result of sloppy leadership and an uncaring attitude. Spaces that are well ordered and pristine demonstrate awareness and attention that invariably carries over to how processes are run.*

Gemba and Technology Development

In technology development, where much of the "factory floor" is not physically visible and where many teams work virtually, walking the gemba has a somewhat different flavor. One thing the gemba walk suggests is that you do need to get as physically engaged with the development process as you can.

Joe: *When I was working from Seattle with a client in Ohio, there was much about the development process I just couldn't understand until I went to Columbus, took a drive with one of the guys through the Amish country north of town, drank beer with the team at a German restaurant and had vegetarian South Indian food with one of the key engineers at his favorite place. Of course, the most important part of the gemba for me was navigating the endless cube farm at the corporate HQ (complete with cyclone cellar): witnessing the intense pressure and chaos of the team's schedule of meetings, watching their interactions at standup meetings, seeing the whiteboards where their plans were laid out and the literally wall-sized charts showing the enterprise security protocol. Fixing tech delivery process problems might be a little more subtle than seeing someone using contaminated supplies, but the principle is the same: you need to be there and watch what happens.*

You can do a technology gemba walk by “walking around” virtually too: through video conferences and whiteboard sessions or by leaving an audio or video conference line open in the team room all day as it works. Many teams are very good at using a chat application to stay very closely connected and watching what's happening even though they're in four different locations and time zones. Watching the stream of chat is a great gemba practice as well. Finding the way to interject questions and observations in a non-judgmental manner, paying attention in the present moment, is the skill of gemba chat.

Gemba and Mindfulness

In its essence, practicing mindfulness is very much like walking the gemba: showing up where the work is done and seeing for yourself. Whether you're cultivating mindfulness or walking the gemba, your ability to notice the details is based on your capacity to stabilize your attention. You could stand and gaze at a process for an hour – and check the “gemba walk” box – but if you're not really looking you might as well be back at your desk answering email. Staying rooted in your body and your breath provides a sound basis for staying connected to what you observe. It helps prevent the flickering of

distraction: jumping to conclusions, assigning blame, and drifting off to other problems that have nothing to do with what's actually happening.

One reason for holding off on asking "Why?" as you walk the gemba is that as soon as you've asked that question you are no longer noticing. You've moved instead into an analytical state – looking for causes and reasons – that takes you away from what's happening in the moment.

The "walk" part of the gemba is another mindfulness connection: paying detailed attention to the experience of walking is a classic mindfulness practice. Feeling your weight transfer from one foot to the other, noticing the subtle shift of balance from left to right and back again, is a fascinating experience, observed up close. It might seem counterintuitive that paying attention to your feet helps you pay attention to more than just your feet. But focusing your attention in this way helps you drop down out of your propensity for thinking, and makes it easier to get grounded in physical reality. And that improves your ability to observe what's happening "out there."

If we think of mindfulness as present-moment, non-judgmental awareness, there are several things to watch out for while walking the gemba or doing any observational activity:

- **Focusing on the past:** "Why was this so much better last week?" "If only Jim hadn't left the team." "I sure hope that disaster that happened last week doesn't happen again."
- **Focusing on the future:** "This looks good now, but can we keep it up?" "What if we get acquired?" "Maybe this will get better over time."
- **Focusing on praise:** "That Tim is so good at what he does...I wonder where he learned to do that?" "It's so nice to see everyone working so hard." "I'm so great at this gemba walk thing."
- **Focusing on blame:** "This team can never do anything right." "That guy's attitude really irritates me." "I really suck at this gemba walk thing."

One of the key benefits of mindfulness is greater stability and control of attention. Improving your ability to focus helps prevent distraction from peripheral matters (your own emotions, past history, assumptions that you or others are making) so you can focus on essences (root causes, opportunities for leverage, what it will really take to fix a problem).

If you see someone using a contaminated cleaning cloth, then it may be that you're annoyed, or that they haven't raised the issue until now, or that there are serious quality problems downstream. Mindful attention doesn't mean disregarding these realities – in fact mindfulness helps you see them more clearly for what they are: irrelevancies that exist but don't have any bearing on the cause of the problem. What is relevant is that there is a shortage of cleaning cloths that needs to be fixed. Mindful attention helps you see more clearly what really matters, so you can get to solutions more quickly.

One image that may be useful for the gemba walk is the mountain goat. Like a manager doing a particularly problematic visit, mountain goats have difficult terrain to traverse. But (like all animals), mountain goats are great teachers of present-moment awareness. They stay relaxed and flexible, they stay balanced, and they climb up ridges and down ravines with incredible ease, remaining alert to the various dangers (pumas, avalanches) without ever losing their cool. Can you imagine inspecting your terrain with the same relaxed confidence and open awareness? “Herb, it looks like our way down has been blocked by a rockslide. Interesting. Why don't we make our way over to the ledge on the right?”

How to Do a Mindful Gemba Walk

Try adding one or two of the habits below to your gemba walk...and notice the difference it makes. If it helps, add a couple more!

1. **Set your intentions before you start.** What do you hope to accomplish? What are some tendencies you want to avoid? Where do you expect to focus your attention?

2. **Breathe:** Before you walk the gembu, take a few deep breaths to get centered.
3. **Leave behind your devices.** We're going to go out on a limb here and say that you just can't walk the gembu staring at your phone. At the very least, put it into airplane mode and away in a pocket.
4. **Set aside your preconceptions, including what you've observed on previous walks.** Your goal for today is to see what's happening right now.
5. **Stay in the present moment.** Notice any phrase coming into your mind that begins with "I can't believe I just saw..." "These guys always..." or "Why can't we ever..." These judgments obscure your thinking and can prevent you from noticing other important details.
6. **As you make your observations, notice also your own response to what you see.** Is your chest getting tight? Are you finding it harder to breathe? Do you feel a surge of anger, or worry, or fear? Take note of these emotions as they rise...and then look again. What do you *really* see? Do you find yourself rushing to fix it? Are you assigning blame? Take note of these thoughts as they arise...and then look again. The more clearly you can identify your own response, the more likely it is you can let go of it, and see what's actually going on out there. Allow yourself to be curious about what you see, as though you are a visitor from another planet. How interesting it all is!
7. **When your thinking about solutions just won't go away, put your thoughts down in a notebook and let them go.** You can always circle back later and take action. Meanwhile, what else is happening out there?

VALUE STREAM MAPPING

Mapping a value stream is pretty straightforward. You start at the beginning of a process and identify all the steps performed today to deliver value to the customer or patient. From this current state map, you identify value-added and non-value-added activities and estimate how much time is spent on each one. Then, you can create a plan to eliminate waste from the stream and balance the flow of the remaining activities.

In this chapter, we'll cover the following topics:

- Stay Objective
- Include the Human Dimension
- Don't Miss Subtle But Crucial Dependencies
- See the Process As-Is (But Don't Get Bogged Down)
- How to Do Mindful Value Stream Mapping

Let's get mapping!

Stay Objective

Value stream mapping helps participants become aware of dependencies they haven't considered. Frequently, the people involved in a value stream mapping exercise have never collaborated before. They have been doing their small part of the process and "throwing it over the wall" to the next process in line, completely unaware of the impact they have. Downstream participants may struggle with what they receive and think "What a bunch of idiots! They have no idea what they're doing up there" – all the while completely unaware of the constraints and problems those upstream face. Before a single person shows up and the value stream mapping has even begun, people have drawn conclusions about each other (or their departments).

In one mapping session Joe led about PCI (credit card security) compliance, it was the system developers who were staggered by the complexities of the finance department's world. Software is hard, but dealing with banks just might be harder.

Blame and accusations can poison a mapping effort, so it's critically important that everyone's mindset be one of open-minded discovery. Giving someone "a piece of your mind" may feel good for a moment, but won't improve a thing and will likely cause resentment that makes improvement more difficult. People need to know that they won't be attacked for what they say and do. Otherwise, they won't tell the truth and will instead hide the full extent of problems.

By keeping everyone focused on non-judgmental statements of their own experiences, mindfulness helps overcome these challenges.

For example, saying "you people make my life a living hell every Friday" is less helpful than "On Friday, I receive twice as many faulty parts as any other day of the week. It's frustrating!" Rather than a defensive retort like "TWICE as many? I don't believe it!" (again, less than helpful), the response could be "Our new hires finish their onboarding and training by Wednesday and start production work on Thursday – maybe that's why you're seeing that."

Include the Human Dimension

Value stream mapping relies on analysis and assessment and that objectivity is a good thing. It will help reveal the current reality and how it might be improved. But there is an important interpersonal and emotional aspect of mapping as well. Two important human aspects are the recognition of how interdependent the work is and the empathy participants gain by seeing how their work affects others and the conditions under which others work.

Mindfulness helps everyone find a healthy balance between the objective facts on the ground and the human dimension that inevitably surfaces.

Value stream mapping might also expose uncomfortable truths about less-than-ideal past decisions, persistent miscommunications and misunderstandings, and maybe even some bad behavior.

Todd: *The HR Department at a children's research hospital was the clearinghouse for the form that employees submitted when they were leaving the institution. From HR, the form went to other departments that would stop pay, remove laboratory access, etc. The form had 21 required fields and HR assured that they were all filled in correctly, which only occurred about 50% the time. Forms were sent back and HR spent hours chasing people down. When we mapped the value stream with everyone involved, we discovered that data from 9 of the 21 fields were unnecessary! No one used the data downstream. You should've seen the range of emotions on people's faces.*

One of the best outcomes of value stream mapping is that participants create new memories. They replace misconceptions about people and their intentions with new, more accurate information. Instead of thinking "It takes forever to get the parts I need – those people in Supply don't care," they realize "people in Supply care a lot, but goods are spread out across four buildings – so it's no wonder it takes so long to get what I need!"

Another new, important memory you might create is the look on a downstream colleague's face and the sound of their voice as they describe the hours and hours of effort it takes to correct errors that come their way...errors that your team creates!

See the Process As It Is (But Don't Get Bogged Down)

The familiarity of daily experience can blind you to what's really happening. If you're the one who designed, documented, or trained people on the process, it's all too easy to think that the process works just as you envisioned it. But something radically different may be happening. The more you can step back, take a deep breath, and observe what is so with openness and curiosity, the more clearly you will see what is really going on.

You might find it shocking or depressing...but it's necessary to map things as they are, and then work on making improvements from there.

The biggest insights and opportunities often come from the obviously wasteful and non-value-added activities that emerge from the first efforts to make a map. Getting wound up about exactly how processes work, with endless meetings to map every permutation, robs the process of its freshness and dulls the sense of curiosity and experimentation.

Set a fixed time for the mapping process (it might be two hours, it might be a day, depending on the complexity of what you're mapping) and don't be afraid to end the activity on a high note, which may come before the time is up. That high note will likely be an important realization among the participants like "Wow, this process is way too complicated; we have to radically simplify it." Or, "Most of the waste in this process results from our poorly defined sick leave policy."

***Joe:** One company I worked with had very complex vendor payment systems. The first value mapping initiative went on for months, got snarled up in details and addressed too few of the vendors' pain points – and everyone on the team was exhausted and dispirited before change could come. Finally we took a fresh start and spent half a day mapping what was truly valuable to vendors about the process. We ended on a high note and had the energy to implement quite a few quick wins.*

How to Do Mindful Value Stream Mapping

See what happens to the effectiveness of your value stream mapping work when you add one of the mindful habits below. Look for subtle but significant shifts!

1. **Practice empathy.** Empathy is mindfulness applied to other people, so we can view them without judgment and in the present moment. Empathy is a great mindset for a value stream mapping exercise. As a leader, you are holding a space of kindness and acceptance that will make it easier for the truth to emerge. As a participant, you are able to see more clearly the conditions others work in and hear their stories with more clarity and less prejudice.

2. **Be ready to change—and do it with grace and kindness.** From a Lean perspective, customer or patient value is the overriding concern, and if we need to change to deliver better value, then we need to change. But change is much more possible when it begins from the premise of fundamental acceptance and understanding. Gain an empathetic perspective, do the analysis, identify the changes that are needed, and then make them with grace and understanding.
3. **Try out the *metta* empathy-building practice.** Because we are so deeply inclined to make judgments of others, we may have to apply a little proactive intention to balance things out. The classic practice of mindful empathy is called *metta*. In this practice, you bring to mind a series of individuals and wish them well, beginning with yourself and moving outwards to someone you feel great affection for, then someone you feel neutral about, then someone you actually dislike or have negative feelings about. If saying these things out loud doesn't feel like a fit for your organization's culture, that's OK. You can get plenty of benefit by doing it all on your own.

For yourself:

- May I be well
- May I be happy
- May I live with ease

For someone you feel neutral about:

- May you be well
- May you be happy
- May you live with ease

For someone you are close to:

- May you be well
- May you be happy
- May you live with ease

For someone with whom there is some animosity:

- May you be well
- May you be happy
- May you live with ease

5S

“5S” refers to a five-step process for keeping things tidy: Sort, Straighten, Shine, Standardize, Sustain. The gemba walk might reveal great insights into process changes you could make – or it might reveal that things are just a big mess. If it’s the latter, then you’re not going to be able to see how to truly fix things until you tidy them up. That’s what 5S is for.

In this chapter, we’ll cover the following topics:

- Clean Matters
- Clean is Not So Easy
- Clutter? What Clutter?
- All About the Details
- How to Do Mindful 5S

Let’s get cleaning!

Clean Matters

“Cleanliness is next to godliness” might sound like a moldy cliché, but keeping things tidy is a powerful way to increase effectiveness. The Lean practice of 5S is a series of steps to get organized and stay organized. We see mindfulness and 5S as mutually beneficial. It’s easier to be mindful when the space around you is neat, clean, and organized, and 5S is a technique that does just that. The practice of mindfulness gives you a valuable tool for practicing 5S.

One of the striking features of a Japanese Zen monastery is the incredibly clean and polished wooden floors. Since shoes aren’t allowed, the sensation of walking across

such a floor in your stocking feet is an unforgettable experience. That doesn't happen by accident. One of the traditional ways for a novice in a Zen monastery to begin practice is by relentlessly scrubbing and polishing those wood floors. In the Zen context, cleaning is not a nuisance or a chore, but a rich opportunity to grow and deepen one's practice. Surprising as it might seem, it's the same with Lean.

Todd: *An injection molding company was seeing a sporadic defect, specifically black spots in the parts. They cleaned out the machines and changed the resin, but the problem continued on and off. They asked me to take a look, so I came in and did a gemba walk. It was summer. It was hot outside and, if you've ever been around an injection molding machine, roasting inside. The production operators had the windows and doors propped open.*

As luck would have it I was there at shift change and standing next to an open window trying not to cook. I could see swing shift arriving, driving across the dirt parking lot and creating clouds of dust. With the wind blowing just right, the dust rolled in through the open windows and doors and onto the machines and, most importantly, into the open resin hoppers. Day shift didn't see this because they were in the office getting paperwork ready for shift change. And swing shift didn't see it happen when day shift left because they were in the office going over the paperwork for their shift.

And, unfortunately, the machines were a mess, covered in dirt and grime from years of use, so the parking lot dust just disappeared. If the machines had been spotlessly clean, someone would have seen this dirt and known the cause of the problem. The shiny surface would have acted as a signaling device.

Clean is Not So Easy

5S requires that you and your teammates carefully reflect on the environment, tools and equipment, materials and supplies, and the facilities you need to accomplish your work *waste free*. This can be much harder than it sounds.

It may be that you've lived with waste and inefficiency so long that it's hard to see it any more. Or you may think it's impossible, or not worth the effort, to change. You've been manufacturing product, treating patients, processing paperwork, or writing code for years all the while getting around obstacles in your way. That's why they call it work, right? Doesn't "work" equal "difficulty"?

But Lean is about creating new memories, building new habits, and taking control of circumstances that have seemed beyond your control. A strong commitment to order and cleanliness is one of the new habits to build.

Though 5S was developed for manufacturing and easily transferred to healthcare where physicality (machines, tools, materials) dominates, the practice is easily applicable to non-physical work like software engineering and project management. Developers who write clean, well documented code, and project managers who keep project artifacts like timelines and kanban boards tidy and current, are much more effective in the long run. And just about anyone can benefit from clear, clean, and logical systems for storing and organizing computer files. Version control systems, test environments, documentation: the technology workspace is full of opportunities for practicing 5S, even if there isn't a wrench in sight.

Clutter? What Clutter?

To many people, there's nothing more aggravating than clutter. Clutter causes repeated attempts to find what you need to do your work especially when you're on deadline or running late. "I KNOW it's around here somewhere!" you cry. All thought about the actual work you have to accomplish flies out the window.

But "clutter" is a relative term that means different things to different people. What looks messy to one person may be the perfect configuration for another to find exactly what they need. Also, in activities that require creativity and innovation, you may need to strike a balance between orderliness and spontaneous messiness. Keep in mind the

Lean principle of “respect for people.”

Joe: *As a new consultant building a business after thirty years working in technology companies, I live in this tension between fluidity and orderliness every day. Too messy, and my work descends into chaos. But too orderly and some creative possibilities will be missed. The excellent book [Daily Rituals](#) lays out the routines of hundreds of creative people of all kinds and reveals the wide range of strategies that are possible. Igor Stravinsky would periodically take a break and stand on his head to get the creative juices flowing. More than one famous author used bouts of riotous living to balance out periods of intensive hard work. But even the most chaotic creative minds need a way to stay organized enough to be able to produce – and that is especially true for collaborative teams.*

If you find yourself bumping up against the tidiness that 5S promotes, remember that the point is to improve efficiency, not to generate cleanliness for its own sake. Focus on what it takes to do a good job, and make it easier for your coworkers to do a good job. That will give you just the right level of engagement.

All About the Details

Here are further details, examples, and mindfulness practices for each of the five steps.

Sort

As you investigate, pay close attention to each item or activity. What does it really contribute to the value you are seeking to create? Notice any feelings of guilt, attachment, or resentment that might arise. Maybe that tool, or process, or server has been around for a long time. Maybe procuring or implementing it was your idea – and maybe that took a lot of effort and creativity and resulted in a lot of pride. None of that is enough reason to keep it around, if it’s not adding value today.

Use mindful, present-moment, nonjudgmental awareness to reflect on each item. Not what it used to be, or what it could be. Not whether you love or hate what it does or

what it represents. Just simply: what is its nature? How does it contribute to the value of what you do? You can use the Five Whys (which we'll talk about in more detail in the next chapter) to do this. For example,

- **Why do we have this wrench here?**
 - ✓ We use it to open the back of the machine.
- **Why do we open the back of the machine?**
 - ✓ Sometimes the machine jams.
- **Why does the machine jam?**
 - ✓ The labels stick to the rollers.
- **Why do the labels stick to the rollers?**
 - ✓ We don't buy the recommended label brand. We buy an off brand.
- **Why do we buy an off brand?**
 - ✓ I don't know. You'd have to ask Purchasing.

So, the wrench is in the area in order to fix a chronic problem that's caused by another process. The wrench is taking up shelf space and, more importantly, the problem is taking up mind space. Sorting can help you uncover and start to solve problems at the root cause. And, of course, you still need to make a decision whether you keep the wrench or not.

Straighten

Once you have finished sorting, what remains is whatever is truly necessary and important for your work. The next step is straightening, which means organizing, but at a very high level. You must have clarity about the purpose and function of each item to organize effectively. How is it actually being used? When is it used in the workflow? Are there particulars about grasping or handling the item? A better understanding of purpose is one of the great virtues of straightening. By paying mindful attention without judgment, and in the present moment, you're better able to see what an item is and its role.

Some examples of straightening:

- Find places, both physically and digitally, that make it easy and convenient to find and access what you need.
- Add containers, racking, pegboards, hooks, etc. These might be available from other areas performing 5S.
- Create desktop shortcuts to find important files and applications.
- Make the location of, and access to, safety equipment clear.

What you need should be instantly “at the ready” when you need it. Think about a car dashboard or gear shift. Without taking your eyes off the road, you reach out or down and the knob or lever you need is right under your hand. There’s no searching or fumbling about. That’s the way you want each item in your work environment to feel.

Effective straightening clearly shows everyone where something belongs and when it’s missing. Before you start your work, you can take 30 seconds, scan the area and confirm that all the tools and supplies you need to do your work are there and ready to go. You can begin your work relaxed, confident, and focused. The mindful work of straightening supports the mindfulness of the work itself. There’s no voice in the back of your mind wondering what unpleasant surprises the day will bring.

Mindfulness also helps the straightening process by exposing the judgments and assumptions that you and others on your team may make when you decide how to organize a set of items. Like a new grocery store hire who puts the peanut butter next to the pickles, a scheme that makes sense to you may not make sense to your coworkers. Surfacing assumptions through communication and dialogue helps bring a team to a shared understanding of how things need to be organized.

Shine

This step is much more than it seems. You're thinking "Shine? You really mean clean; like remove dirt and stuff. Not actually *shine*, right?" In fact, this step actually means *shine* like a mirror. Go to YouTube and watch videos of facilities doing 5S. When they get to Shine, you will be amazed.

Some examples of the Shine step:

- Clean and maintain what you've straightened.
- Perform overdue maintenance and make repairs.
- Clean, repair, paint, coat, and protect surfaces.
- Make the area so neat and clean that any disorder is instantly obvious.

An immaculate workplace is less likely to be defiled than an already dirty one. Also, a very clean workplace makes it clear when something is out of place, so problems surface and resolve quickly.

Software code is just as susceptible to dirt and grime as anything in an auto shop. In the wee hours before a deadline the equivalent of old pizza crusts can start to appear. It takes extra determination and discipline to keep things clean, but the benefit for the longevity and durability of code is enormous.

Standardize

In some ways this is the most difficult and radical step, because it turns an occasional and unusual practice of orderliness and cleanliness into an ongoing commitment.

"Standardize" means taking the necessary steps to turn 5S into a practice, something that's going to be part of your life from now on. Some practical examples:

- Agree on methods and practices like surface markings, color coding, and file naming conventions to keep things sorted, straightened, and shined.

- Create a system to add and remove resources from a storage area.
- Identify the best cleaners (physical or virtual) for specific items to keep them shiny and make them conveniently available.

When starting a mindfulness practice, one of the most important steps is making space and time to do that practice (whatever it is). In the same way, “Standardize” is creating the conditions for sustaining the practice over time.

Sustain

This is the natural outgrowth of standardization. If standardizing is a commitment to doing a practice, then sustaining is actually doing the practice. As with any repeated practice the danger is that the practice itself will become rusty, hollow, and ineffective over time. Sustaining requires as much attention as any other part of the 5S process. Staying awake and curious in the present moment, let each of the activities remain fully fresh, vibrant, and alive.

How to Do Mindful 5S

Here are a few habits you might try to develop in order to bring more mindfulness to your 5S practice. Choose one or two from the list and add more over time if they seem to help.

Mindful Sorting

1. **Sort with curiosity.** As you assign green (keep), red (discard) or yellow (borderline) tags to each item, notice any judgments and attachments as they arise.
2. **Stay fresh.** If you find yourself keeping everything, or throwing everything out, take a break until your ability to discern clearly revives.
3. **Stay calm.** If you find the process difficult or upsetting, take a break until you can approach the task with calmness and equanimity.

Mindful Straightening

1. **Find the balance between simplicity and fitness to the needs at hand.** If overly complex organizational schemes just means things will continue to be confusing, overly simplistic schemes can lose touch with reality. You are seeking a middle path that accounts for the facts of the work situation but brings a feeling of clarity and elegance.
2. **Treat labeling items as a way to bring awareness to what's going on.** A classic mindfulness practice is to label your thoughts as they arise – for example, “judging,” “anxiety,” “drowsiness,” “boredom” – before letting them go. The practice of clearly labeling items in your work area has a somewhat different purpose (you aren't letting go of the items; you're making them easier to use), but it has a similar intention. As in mindfulness practice, systematically applying labeling tools or user stories fosters a deeper understanding of what they are.

Mindful Shining

1. **Pay close attention to each speck of dirt or inefficient line of code, and carefully apply yourself to make it right.** There is a Sufi metaphor for the spiritual journey, “polishing the heart with practice.” Getting something really clean takes sustained effort and attention. It's a great opportunity to practice mindfulness, You can't really do this task without being fully present.
2. **Don't get lost in the shining.** The act of cleaning can be hypnotic, soothing, even relaxing. But mindfulness does not mean “zoning out.” Stay awake and aware of the larger context. Once something is done, it's done. Let it go and move on.

Mindful Standardizing

1. **Make a commitment.** Setting the intention to make 5S a practice and not a quadrennial jamboree is very much like the intention to engage in mindfulness practice. In order for it to stick, you need to find a way to really want to do it, to align the intention with your own values and sense of purpose. You're setting aside the resources you need to really do the 5S practice, being explicit about its

value and importance, and sometimes making painful choices to prioritize 5S over other important needs.

2. **Pay attention to the details.** A successful 5S program needs to be thought through with enough specificity that it's actually viable given the realities on the ground.
3. **Be flexible.** In any environment, the product, equipment, technology, and processes are constantly evolving. So a commitment to standardization includes a willingness to make adjustments to account for current realities.

Mindful Sustaining

1. **Create and follow a routine schedule to conduct Sorting, Straightening, and Shining.** As with any practice, building a consistent habit is the key. You're doing it right when it feels weird *not* to keep things tidy.
2. **Establish a set of triggers to remind yourself to keep it up.** Train yourself to see each tiny piece of litter as a reminder of your commitment to 5S. When you get to the place that clutter doesn't feel right, 5S starts to happen as a normal part of your work experience.
3. **Establish 5S as an individual and organizational intention.** As with any mindfulness practice, it sticks when it's part of your everyday expectation. You can build this by including 5S in job descriptions, procedures, onboarding, and audit processes.

FIVE WHYS

Five Whys is a method for digging through surface symptoms to reveal underlying causes. The practice is simple: when a problem is identified, ask the question “why?” five times.

For example, suppose there’s a fluid spill on the floor. “Why?” Because there was a leak in the machine. “Why?” Because a line had rusted. “Why?” Because there was excess moisture in the room. “Why?” Because a window is propped. “Why?” Because the thermostat is broken and the room gets too hot. While the floor still needs to be cleaned and the leak fixed, the problem won’t be fully addressed until the thermostat is repaired.

In this chapter, we’ll cover the following topics:

- Root Cause Analysis
- Curious Whys
- How to Ask Mindful Whys

Let’s start digging!

Root Cause Analysis

Using the Five Whys is powerful because it forces you to look beyond obvious contingent reasons to identify root cause.

In its simplest form, the Five Whys is a strictly rational process. You follow a chain of logic upstream from problem to cause, you fix the ultimate cause, and the problem is solved. But reality is often more messy than that. In many cases the links between problem and root cause are not obvious. It may take difficult investigative work, challenging assumptions, or the questioning of sacred cows. Even when the chain of

causation is strictly technical, there is the potential to go astray and end up with a wrong or irrelevant answer to the question of root cause.

Todd: *I made it a regular practice to drop by at least one of my engineers' cubicles once a day to discuss what they were working on. I'd ask things like how it was going, what progress they were making, why were they following that line of thought, what other options had they considered, what were their next steps, and, ultimately, what help could I provide. Sometimes our discussions got very technical.*

I distinctly remember the first time I dropped by a new engineer's cube (he'd been on the job with us about a month) and sat down to talk. He looked at me and said "You're going to suck my brain, aren't you? The other guys said you do this."

We both laughed and I said "Yes, I am." and proceeded to do just that. But, I also made a mental note to dial back the intensity a little.

In cases where the chain of causation leads to human factors (problems caused by things people do), the difficulty of root cause analysis increases dramatically. What if I hurt someone's feelings? What if my boss – or the big boss – gets angry? What if I find out that I myself am part of the root cause? These concerns make it hard to keep asking "why?". It's tempting to just fix the surface problem and leave the deeper and more uncomfortable investigation alone.

In addition to the uncomfortable places asking "why" might lead you, there's another major factor to consider. Call it "the problem with why". In a [recent study](#) led by researcher Tasha Eurich, individuals were asked a series of questions designed to reveal their degree of self awareness. Some individuals were asked simply to describe their personal characteristics. Another group was asked to explain *why they are the way they are*. The first group was generally quite successful at accurately capturing their personalities, including strengths and weaknesses. The "why" group was actually much less accurate in describing themselves. Presented with the question "why," they began to make up stories, and came to conclusions that took them farther and farther away from who they really are.

As Eurich explains:

As it turns out, “why” is a surprisingly ineffective self-awareness question. Research has shown that we simply do not have access to many of the unconscious thoughts, feelings, and motives we’re searching for. And because so much is trapped outside of our conscious awareness, we tend to invent answers that feel true but are often wrong.the problem with asking why isn’t just how wrong we are, but how confident we are that we are right....We tend to pounce on whatever “insights” we find without questioning their validity or value, we ignore contradictory evidence, and we force our thoughts to conform to our initial explanations.

While fixing a problem of fluid dripping onto an exam room floor or a bug in the system might be simpler than something complicated like human self understanding (though of course it might not be!), in essence, “the problem with why” remains. It’s twofold:

1. If we can’t accurately determine the reason why something happened, we are inclined to make up a reason.
2. We then become overly confident in the reason we just made up.

In cases where reasons are complicated (whether for technical or human causes) we have to be on high alert to avoid falling into these traps. It takes close attention, resisting the temptation to invent explanations, and then (when we inevitably invent) not trusting too firmly in what we’ve made up.

Joe: *For several years I led the localization team for a mid-sized software company. The team was tasked with translating products into multiple foreign languages. When I took over the team there was a widespread view among management that the team members were “gilding the lily,” spending too much on translations that were of higher quality than they needed to be. From the team’s perspective, the problem was management’s misunderstanding of international customers’ needs. It soon became clear to me that we were struggling with the “problem of why” – on both sides the*

firmly held opinions were based on incomplete and sometimes inaccurate information. Our work of getting to a clear “why” had to start, in this case, with a lot of data gathering, including actual costs, actual product sales, and interviews with customers in the field. That made it possible for us to clear away the hearsay and begin to ask and answer the deeper questions about why our international business was not flourishing as we had hoped.

Curious Whys

Five Whys might feel like existential screams (why? WHY? WHY?? WHY???? WHY?????!!!!). To avoid heading into an emotional meltdown of despair and blame, try asking the questions with genuine curiosity. This may take a few deep breaths as you take note of your emotional response, which might include an intense desire to find solutions or identify someone to blame. Don't start with the Whys until you can ask them with openness and without a hint of sarcasm. For example:

- “Hmm, I wonder why that is? I'd really like to understand because life is amazing and full of wonders...including this wonderful mess we're trying to address right now.”
- “Oh really? That's so interesting. And it opens up a whole new well of curiosity, compelling me to ask: why is that?”
- “You know, this is actually pretty exciting – you're helping me see how completely flawed my previous assumptions were. So given that, you probably know the next question I have: why?”
- “Now that is amazing. I had no idea. So much I just don't understand. And that makes me wonder: why do we think we need to do it that way?”
- “OK, I get that. Given the assumptions that makes complete sense. But I'm genuinely curious about the thought process that led us to go down that path. I find myself wondering if we need to revisit...but first need to know what got us there. Why did we decide that?”

How to Ask Mindful Whys

Very fortunately, there is a nice overlap between the kinds of awareness that mindfulness practice supports, and the capacities that are needed to make effective use of the Five Whys. See what happens when you develop one or two of the habits below:

1. **Start with empathy.** Remember that asking someone “why?” out of the blue could seem threatening and might even harm a relationship. Particularly when you’re asking someone for the first time, provide plenty of context. Explain that it’s part of a formal process, and that the “why” is not a challenge but a desire for understanding. Stay aware of the emotional tone of the responses you get, and adjust your own tone accordingly.
2. **Check your presuppositions at the door.** It’s the most natural thing in the world to hypothesize about causes before all the information is on the table. Making predictions is a core function of our mental processing. We do it all the time, and most of the time we are very good at it. But when you’re confronted with a complex problem with multiple contributing factors, the rules are a little different. It’s not that your own presuppositions will go away...and they don’t need to go away. But be aware of them, recognize them for what they are – unproven personal hypotheses – and turn your attention to your investigation with curiosity and openness. Expect to be surprised!
3. **Stay focused on the “now.”** Staying in the present moment, in this case, means focusing on the question at hand. The Five Whys will certainly push you back into the past as a causal sequence begins to emerge, but it’s best if you can allow the answers to each “why” to lead you there. Anger or frustration with what has already happened and can’t be undone, or anxiety and fear about possible consequences that aren’t yet reality, clouds your perception and makes it more difficult to ask questions in an open way.
4. **Ask without judgment** “Why did this happen?” It’s all about the tone of voice. Are you sounding (and feeling) like an angry parent? When you’re confronted with a problem and in the thick of it, there is an overwhelming desire to pass judgment: *who can I blame?* But this only gets in the way of clarity. Asking the Five Whys without judgment of good or bad, right or wrong, will get you faster and more accurate answers, and lead you to the root cause more quickly.

5. ***Hold everyone responsible.*** Bringing mindful attention to the Five Whys is not easy. Everyone in the organization has a role in making it more possible for that to happen:

- Leaders need to take the responsibility to create emotionally safe environments within which healthy whys can be asked.
- Individual team members need to take the responsibility to pause, breathe, and notice what fears, judgments, and assumptions arise as they ask and answer their whys.
- Teams need to come together to explore root cause in a collaborative and cooperative way, not by assigning blame but by investigating with clear eyes what is really going on.

PLAN-DO-STUDY-ACT CYCLE

When confronted with an opportunity or a problem, the Plan-Do-Study-Act (PDSA) cycle organizes thoughts and efforts in a transparent framework.

In this chapter, we'll cover the following topics:

- Structure and Balance
- Get Focused and Stay Focused
- Begin With the End in Mind
- The Power of the Circle
- How to Do Mindful PDSA

Let's start the cycle!

Structure and Balance

This cycle incorporates several of the other practices we've discussed earlier, as follows:

- **Plan:** Whether you are starting a new initiative or trying to solve a problem, use the Plan phase to investigate the nature of the work. Do you really understand what you're trying to build, or the problem you're trying to solve? Activities like the gemba walk and value stream mapping can help clarify the reality of the current situation as well as what you're expecting to achieve.
- **Do:** In this phase, you engage in work based on the plan. Practices like 5S can help guide your activities; so can other lean practices like Kanban. It's important to note that "doing" here happens in the context of exploration, not a definitive solution. The Do phase is really another form of learning.
- **Study:** This is the activity of reflecting on what you've learned from the first two phases. That reflection might include data analysis, qualitative assessment (what did it feel like? what was the environment like?), and feedback from customers or stakeholders. The key questions are "What did I learn? Did my doing verify my understanding of the original initiative or problem?"
- **Act:** Informed by what you learned in the Study phase, you implement changes to your process. The Act phase results in a new steady state (standard work), from which you can start a new PDSA cycle to address new problems or make further improvements.

Get Focused and Stay Focused

Frequently, a PDSA cycle is initiated after there's sufficient evidence that a significant problem exists and needs to be solved. A commitment to the PDSA process clearly signals that "We're going to begin problem solving." Everybody knows a coordinated effort to find a solution is getting underway. Setting and committing to an intention like this accomplishes several things:

- Creates a sense of forward motion rather than being stuck forever in a bad situation.
- Brings diverse points of view and roles into alignment, all focused on a common goal.
- Builds optimism and openness to new solutions (especially when that commitment comes with resources).
- When enthusiasm and momentum begin to wane (which inevitably happens in the best of circumstances), reminding everyone of the intention helps refocus and regain momentum.
- When shiny new objects or scary new problems come into view, a clearly expressed previous intention helps stabilize the situation. The intention may need to be revised, but it also needs to be respected. Review the current circumstance and assess whether the rationale for your original intention is still valid, and how it stacks up against other needs.

The structure of the process encourages people to bring their observations, experiences, and ideas to bear. Because the PDSA process has a transparent and easily communicated structure, everyone involved can relax about what needs to happen so they can participate to the fullest, with full awareness.

One of the key characteristics of PDSA is that the team works on one step of the process at a time. Participants know what quadrant is currently being worked and the process within that quadrant. If we're Planning, then we're not talking about solutions yet. If we're Doing, then we're focused on generating high quality data for the Study

phase. When we're Acting, we're making decisions and making changes (or clearly deciding not to make them).

Todd: *As I started working with a new client, it was clear that their “problem solving method” was simply people fighting for their own biased solution. As a result, meetings were tense, even angry, and those who weren’t loud enough to get their ideas heard disengaged or stopped showing up.*

Following the PDSA Cycle (and using an A3 form) was difficult at first. They wanted to start with DO! I can’t remember the number of times I said “That’s an interesting idea, but we’re not considering solutions right now. We’re ‘Planning,’ which means working to better understand the problem.” Eventually, people started to relax and share what they observed and knew. The meetings became increasingly productive and moving to the DO phase happened organically as the root causes became clear.

Bringing full and mindful attention to the task at hand generates better thinking and better results.

Begin With the End in Mind

Each step in the PDSA cycle is tied to the preceding and following steps. There's a PDSA motto that says, “Plan as much as you can do, do as much as you can study, study the things you can actually act upon.” The planning process starts with an understanding of what actions are possible within your current reality.

Joe: *I was involved in a PDSA-style initiative with a finance group for an ecommerce company, where it was determined that the company was getting a lot of abandoned shopping carts due to its mechanism for credit card processing. We made it most of the way through the process, getting to a set of great recommendations for action...before learning that our contractual obligation with the processing vendor made it impossible*

for us to make the changes we want to make. That's what happens when you don't begin with the end in mind.

When you're feeling the pain of a big problem, there's every reason to want to jump right in and start fixing things. But if you can't step back, take a deep breath, look at the big picture and ask "What is really possible here?" you won't be able to resolve what's at the root of the problem.

The Power of the Circle

PDSA is not an endless loop, nor is it a single loop. It may be useful to think of the process as a spiral, steadily circling and getting ever closer to an optimal outcome. Engaging in the process teaches you important things that you can then apply to the next cycle. But in principle it is not an ongoing task; at a certain point you have squeezed all the value you can out of what you're focusing on, and it's time to move on to a different domain.

There is something very powerful about the image of a turning circle. Some of our metaphors for cycles are not entirely positive: "we're just going around in circles," "we're spinning our wheels," "we're on a merry-go-round." But the iterative loop is a powerful way to learn.

A circle gives you the opportunity to reflect repeatedly on your experience, going deeper each time. A circle reveals new information each time you traverse it (like watching a favorite movie for the 10th time and seeing something entirely new). What might feel like tedium might, with a mindful and curious attitude, come to seem like the rich opportunity for exploring something new.

Going in circles also means that you can steadily improve your capacity and your ability over time. Each step of the process becomes more and more familiar. Each person on the team understands their role that much better. Each person also understands where they are in the process and what comes next, which is also highly beneficial.

How to Do Mindful PDSA

Like PDSA, mindfulness practice is itself a process. Whether you are watching your breath or taking a mindful walk, no sooner do you get into an open, clear, space than your mind jumps in with distracting details. The work is not to prevent the distractions (you can't) but to recover from distraction by regaining your focus, letting go of any self criticism, and returning to the practice.

The same model of recovery without self criticism applies to many Lean practices. Here are some suggestions for applying the model to a PDSA implementation:

1. **Set the intention:** Why is your team engaging in this PDSA cycle? What is your aim? What problem are you seeking to solve?
2. **Engage in practice:** The team gets to work, fully aligned with the intention.
3. **Get into the groove:** Everyone is still aligned and things are moving forward smoothly. This is great!
4. **Get distracted:** Uh oh! For one reason or another, things are more complicated than we thought. The problem is bigger, or different, than we thought it was. There's a crisis with a big customer. A key person has quit the team. A top executive is insisting on a different priority. There's no end to possible distractions: the one sure thing is that distractions will come.
5. **Regain focus:** This is a key step. At some point amid the distraction, someone on the team says: "Hey, what about the PDSA work?"
6. **Let go of self criticism:** Also a very important step. Distraction presents the temptation to say things like: "This is hopeless. We'll never fix this problem. We'll never have enough time and things will always be a mess." It's crucial at this stage that you let go of "never always and forever" judgments like these and shift to a more useful mindset: "Things haven't gone the way we planned. That's OK. We're going to accept that. We're not going to jump to any conclusions. We'll make the adjustments we need and move on. The dream is still alive!"
7. **Reset intention:** The team renews its commitment to, and focus on, the PDSA process. Wherever you are in the cycle, whatever new information you have learned, and whatever changed circumstances have emerged, take them into account. Reset your intention based on what you know now, get realigned as a team, and proceed.

EXPERIMENTATION

In Lean practice, experimentation means purposefully and thoughtfully deviating from the current standard work with the intent of improving the process. The result is new standard work that delivers more customer value and creates less waste.

Experimentation is at the heart of the Do phase of the Plan-Do-Study-Act (PDSA) cycle.

In this chapter, we'll cover the following topics:

- We Don't Know What We Don't Know
- The Experimentation Process
- Experimentation and Mindfulness
- How to Do Mindful Experimentation

Let's start experimenting!

We Don't Know What We Don't Know

The reason we experiment is because we need to improve a process but we don't know how. And too often we don't know what we don't know. At its heart, experimentation is structured learning.

Rather than assuming there is one right way to do things, the practice of experimentation means that learning is more important than knowing, that failure is not only acceptable but often the necessary prerequisite to success, and that excellence only comes from continually testing the boundaries of the current reality.

Experimentation can be as simple as changing a single process factor, for example temperature, and measuring the impact on a single output, for example, strength. It can also be as complex as changing dozens of inputs simultaneously using a series of statistically created matrices and measuring the impacts on dozens of outputs.

In a healthcare setting, a change could be a redesigned patient admittance form and the output could be the time it takes patients to fill it out versus the old form. In a technology development environment, experimentation might mean trying out a different design pattern or solution algorithm, changing the delivery process, or building rapid “spike” prototypes to explore alternatives.

Regardless of complexity and setting, experimentation is an activity that benefits from mindfulness throughout the improvement cycle, i.e., planning, running, and analyzing.

The Experimentation Process

There are three steps to a typical experiment: first you plan the experiment. Then you run the experiment. Then you analyze the results. Each of these stages has its own opportunities and pitfalls.

Planning

Remember, the reason we experiment is because we need to improve a process but we don't know how. And too often we don't know what we don't know.

This can be very stressful, especially if you're the one in charge of the process that needs improving. Your thoughts can swirl around saying “I should know this already. I mean I studied this in school.” Fear of ignorance and ego get in the way of learning.

Managers and executives make the situation worse, usually during a crisis like a “yield bust” or a critical service outage by saying things like “I thought you were on top of this.” or “Isn't this what we hired you for?” The implicit message being that your job is on the line. Too often, the need to be “on top of this” sabotages experimentation. The people organizing the experiments focus on what they know (or think they know) rather than on exploring new ground.

Two key activities when planning experiments are the gemba walk and the 5 Whys. Seeing what's happening with fresh eyes and asking Why? a lot generates new ideas to test. To do this, one must be attentive and thoughtful.

When assessing input factors for an experiment keep an open mind, especially when soliciting or discussing ideas from people from different backgrounds and educational experiences, for example advanced-degree engineers and high-school dropout production associates.

It's easy, and foolish, to dismiss the latter's years of day-to-day process experience because they don't have formal credentials. Instead of hearing their ideas, you can get distracted by thoughts like *What could this person possibly know? They can hardly add numbers. And look at their clothes. I wonder how she got that scar?*

Keep your focus on their years of experience and be mindful of learning what they've seen and heard that could be useful.

Todd: *At an experiment planning meeting, a company veteran mentioned "August pits." "August pits?" No one else in the room, all much younger and junior to him, knew what he was talking about. He explained that during particularly dry summers when water supplies were very tight, the city would tap into secondary water sources. Despite extensive water filtering at the plant, this sometimes resulted in distinctive small pits on the product surface. Which begged the question "What could get through the water filtering system and why would it cause pits?" His willingness to share this knowledge led to a whole new line of investigation.*

Running

While experiments are running, being mindful is important for two reasons. First, we're deviating from the current process and it's easy to either go on autopilot and just run the current process or set up an experimental run incorrectly. Redoing these runs wastes time but, even worse, the erroneous data generated, if undetected, can lead to incorrect conclusions.

Second, during experiments, unforeseen things happen. Remember, we're exploring uncharted territory and don't always know what to expect. Changes in equipment or process performance could be important from a safety, patient outcome, or maintenance perspective. An experiment might need to be aborted if things look like they're going wrong. Colors, sounds, smells, and patient reactions could be indicators of problems or of an unexpected side effect.

Sometimes there are unexpected positive results from experimental combinations. During the planning phase, we try to identify all the outputs that might be affected and make plans to measure them. But, again, we're exploring uncharted territory and don't know what we don't know. Keeping a watchful eye and all the senses engaged is critical.

In the virtual world of software, the inputs and outputs may be more abstract than what you'd find on a factory floor, but the principle is the same: you don't know what you don't know, and you need to remain alert and attentive, without preconceptions, to spot the details you would otherwise miss. You may "know" that the errors in a certain log file are "always meaningless," or that a particular process "doesn't have a user impact," but when you change conditions to conduct an experiment you can throw these assumptions out and look again with fresh eyes.

Joe: *A company I worked with implemented a brand-new system to deliver electronic files to customers. We were replacing a system that, though antiquated, was delivering scores of thousands of large files every day. The engineer in charge developed a method for delivering files from the new system and the old system in parallel – at first, delivering new-system files to an internal location. We would deliver files and measure the number of failures.*

Each day we had lively conversations about ways to continue to drop the failure rate, and the team would make system tweaks (for example, special handling for massively oversized files, and rapidly identifying failures so we could retry as quickly as possible). We gradually increased the volume, maintained transparency with the business leaders

concerned about customer satisfaction, and created an environment where failure was not only acceptable but actually encouraged. We needed to see the failures so we could figure out how to make the system better. In this way we gradually cut over from “old” to “new” without a blip or a customer complaint. And it was actually a lot of fun!

Analyzing

So, the experiment has been run, the data analyzed and the results ready for review. What's there to be mindful about? The hard work's done, right? Not yet. Often times results aren't definitive and, even if they are crystal clear, there will be surprises, disappointments, and dashed expectations to deal with.

Todd: *I remember a designed experiment where an input factor that the production associates added to the matrix at the last minute turned out to be very significant. The process engineer in charge didn't think it would be important and was disbelieving when the results were presented. While they were high fiving it around the conference table, he was saying “Wait! No! That can't be right. I mean that makes no sense.” Instead of being happy about an unexpected positive result and joining in the celebration, he was busy defending his ego and trying to regain control.*

Experimentation and Mindfulness

There are many connections between mindfulness and experimentation. In both cases the fundamental principle is the same: open, curious noticing of what is arising in the moment. Our assumptions and preconceptions are exactly what we are seeking to overcome with the practice. It is not too much of a stretch to say that conducting an experiment is essentially an extended and highly structured meditation practice. The more we can stay in the present moment, not worried by the past or oppressed by the future, the better the experiment will be. The more we can avoid assigning praise or blame to the inputs or the outputs, the methodology or the result, the better the experiment will be. The more we can step back from the endlessly running stream of our thoughts, letting go of assumptions and biases and staying attentive to what is so, the better the experiment will be.

Mindfulness practice is itself a form of experimentation. It's all too easy to think of "mindfulness" as another off-the-shelf product that we can "install" in order to realize predetermined benefits. But its effectiveness is entirely dependent on our own particular experience, our history and background, our preferences and oddities. And so...we must experiment. Find the right moment for each of us individually – to take a mindful pause. Find the right focus of attention to help us drop out of our habitual ways of thinking and pay attention to what's happening now, without judgment. We try things, we change them, we discard, we adopt something new until a rhythm starts to form. That's the way mindfulness works. Like any other experiment, there's no point in worrying about failure. Whatever happens, it's all just data to learn from.

How to Do Mindful Experimentation

Planning and conducting an experiment takes a lot of cognitive attention. You're trying to solve a hard problem with lots of complexity. You may be feeling the pressure to quickly fix something that's broken, or you might be fired up with inspiration about an exciting new way to make things better. With your analytical brain firing on all cylinders, it can be especially hard to step back and maintain open, curious attention. Here are some tips for maintaining mindfulness in each phase of the experimentation process. Choose one or two, and see what happens when you develop them into habits.

Mindful Planning

1. **Investigate current reality:** Use practices like the gemba walk and the five whys to get intimately familiar with the way things are.
2. **What else?** Don't limit yourself to one experiment; instead, explore multiple hypotheses.
3. **Step back:** Take breaks during planning to step back, breathe, and recenter.

Mindful Running

1. **Get aligned:** Ensure your team has a clear shared understanding of what the experiment is, and make all assumptions explicit.
2. **Notice the outcomes:** As results start to come in, inspect them with curiosity and openness. Don't jump to conclusions and don't disregard wildly unexpected results.
3. **Stay focused:** Keep your intentions on the north star of your purpose in running the experiment – don't let the experiment become an end in itself.
4. **Step back:** To stay fresh and clear, keep breathing, and take a walk from time to time.

Mindful Analyzing

1. **Don't jump to conclusions:** Let the results speak for themselves. Notice and name reactivity when it arises in you and others.
2. **Try, try again:** If the results show that the experiment needs to be rerun, let go of expectations of closure and continue to investigate reality with openness and curiosity.
3. **The experiment is just the beginning:** Even when results are definitive and you have agreement about what corrective action to take, remember that change is not easy: continue to maintain an open, curious, and experimental mindset.

STANDUP MEETINGS

A daily standup meeting is as simple as it sounds: a team meets every day to assess the current state of affairs, in a format that is quick and efficient. Typically each person on the team answers a brief set of predefined questions, such as:

- Where are we?
- Did we win yesterday? Are we winning today?
- What needs to change to be successful today?
- What did I/we accomplish yesterday? What is my/our goal for today?
- What problems am I encountering that are blocking my progress?

Sometimes the simplest things are the most important. Whether you're in manufacturing, healthcare, or technology, a daily check in to assess status and determine what needs to happen next is a proven way to keep things on track and make them better. But the impact of a standup meeting depends on the way it is conducted, and its repetitive nature means there's always a risk it will fall into a meaningless and mindless routine. Applying the principles of mindfulness to standup meetings can greatly increase their effectiveness.

In this chapter, we'll cover the following topics:

- Stand Up (Really)
- A Clean Slate Every Day
- Keep It Short
- Stay Awake
- How to Do Mindful Standup Meetings

Let the meeting begin!

Stand Up (Really)

Why is standing important? It has the obvious benefit of keeping meetings short. A long daily meeting defeats the purpose.

A good standup meeting focuses everybody's attention on the moment in front of them. There's no hand wringing or finger pointing about the past. No rationalizing actions or defending egos. There's no fretting about the distant future. It's all about the now: how to make now successful.

But standing up has more virtues than just as a way to enforce brevity through potential fatigue. As we mentioned in the "Gemba Walk" chapter, feeling the floor through your feet is a time-honored way to get grounded. It pulls us out of our obsessive thoughts and gives us access to a wider range of intelligences, including the information and insight that comes to us from our bodies, our emotional experience, and our intuitions.

Whether you are talking or listening, standing up means that you are aware of your balance and the way your feet feel. While others are giving their reports, you can use the physical experience of standing to help you focus your attention, drop the distracting thoughts racing through your brain, and really pay attention. When you are giving your update, it's tempting to short circuit difficulties, maybe make yourself look good (or possibly overly humble). Staying connected to your feet might help you stay connected to the truth, and find the courage to speak it. In yoga, the simplest pose, *tadasana*, is just standing; feeling your feet under you and finding your balance. But the word *tadasana* means mountain pose and conjures up powerful images of steadfastness and integrity.

A Clean Slate Every Day

Every standup is a new opportunity to do better than before. Everybody gets a clean slate. It's another opportunity to create new memories. And that can make a big difference to people struggling with performance problems.

Todd: *One time when I started leading a new team, I was told that an engineer (let's call him Dan) was a "screwup." Everyone knew his performance problems and brought that history to every interaction. They expected failure and had low expectations. Our morning standup was critical to breaking this mindset.*

By the end of every standup, we clearly knew the obstacle to winning that day, the necessary fix and who had responsibility. And that clarity made us confident of success, even when the person was Dan. I purposefully didn't pull Dan aside after the meeting and say, in so many words, "Don't screw up." That would've contaminated the future with the past and he needed to feel confident of success as well.

Now, did everything with Dan go smoothly? No, of course not. But, over time his performance improved considerably. In fact, one day a supervisor told me that he was seeing big differences in Dan. "He was here working all night," something that had never happened before. Dan began to demonstrate that he could reliably help us win and the daily standup was critical to that change.

Keep It Short

An effective standup meeting has a limited duration: ten to fifteen minutes is typical. This constrained time frame could create an atmosphere of hurry and tension, but it doesn't have to be that way. Agreements and conventions are helpful: if you have a clear protocol for escalating issues that surface and require more attention, you can engage in follow-on conversations offline. But there is a mindfulness aspect to

managing the clock as well. Staying connected to your feet and your breath helps you stay focused on what's really important, and say what needs to be said. The nonjudgmental aspect of mindfulness helps too: first, because each person can focus on what they actually see and think without getting sidetracked into their own judgments.

The Dustin Hoffman-Matthew Broderick film “Family Business” is about a father and son heist team. In the midst of a time-critical operation during the robbery, Hoffman asks Broderick if he completed some task. After Broderick answers “I think so,” Hoffman says, “There are only three possible answers: *yes*, *no*, and *I don't know*.” Whether you're robbing a bank or reporting on the day's productivity, this kind of focused communication gets right to the point and enables clarity to emerge as quickly as possible.

Stay Awake

In the software world there is a phenomenon known as “Zombie Standup.” In response to the three standard standup questions, each zombie in attendance reports the following:

- Yesterday I zoodled.
- Today I will zoodle.
- No problems.²

Obviously this is not a useful meeting! To make a standup meeting effective, each person needs to be able to speak the truth, really think about what they have been doing, and proactively surface problems. This requires individual initiative, and a willingness by everybody to name the zombie behavior when it shows up. Mindful attention doesn't mix well with zombies, and when just one or two individuals are willing

² Thanks to [Henrik Kniberg](#) for the “zoodles”.

to stay awake and say what they see, alert and attentive, the zombies don't have a chance.

Joe: *On one of the large enterprise integration projects I led, we started to run into significant delays from a number of adverse circumstances. For a while, our daily standups slipped into zombie mode – it was just too painful to acknowledge the big picture of what was happening, so we spent our time diving into the details of the little things we could get done. That was understandable because it made us feel a little better, but didn't keep us in touch with the larger reality that we were constantly missing dates. Once we started using standups to openly acknowledge the painful situation and begin to take action to address it, we started moving forward again – still behind, but no longer avoiding the hard truth.*

Curiosity is a powerful antidote to the dullness of repetition. If you're thinking "lifting this same weight the same way every day for six months...so boring!" then you probably won't be able to keep it up. But when you adopt a curious attitude, thinking "today, when I do this forearm curl, I notice a little soreness on the right side of my wrist. I want to pay close attention to that and go a little slower, really working to stabilize that area," curiosity fills even the most seemingly repetitive activity with interest.

A daily exercise practice works because you are clear with yourself about why you're doing it: to address chronic pain, manage your weight, accomplish an athletic goal. In the absence of this clarity the discipline falls by the wayside. In the same way, for you and each member of the standup team, you need to be clear about why you are standing up every day. Do you have a shared vision of continuous improvement? Are there other team performance goals or aspirations that the standup can serve? What individual motivations do team members have? How can standup tap into and support each person's goals? Remember: without intention, sustaining the practice with genuine vitality is going to be difficult. Remember too that intention is not a fixed commodity: both individual and team motivations evolve over time. Tending to and reframing the intention of the standup over time helps keep it alive.

How to Have Mindful Standup Meetings

Having a meeting that happens every day with the same format is like a daily workout or yoga routine, or practicing musical scales. Because of the consistency of the practice, you can really focus on getting the details just right. With the right mindset, the repetition is anything but boring. Two factors are key: a clear intention and a curious mindset.

Try one or more of the items below in your standup meetings, and see if your team can develop them as habits. Better to do a couple of things consistently for a quarter or two than to try everything on the list and give up after a week or two.

1. Set a clear intention for each standup meeting, every day.

- Announce the intention to the group beforehand, every day.
- Announce the intention at the beginning of the meeting, every day.
- When the meeting strays from its intention, call it out and fix it right then and there.
- Change the intention when it's needed.

2. Maintain an open and curious mindset, every day.

- Be curious about the unique ways the people on the team express themselves.
- Notice why the same problems keep cropping up.
- Pay attention to Important realities that aren't mentioned in standup.

- Be aware of changes you can make over time to bring fresh energy and aliveness to standup.

3. *Find ways to reclaim wandering attention.*

- Agree that each person will briefly summarize the most important or interesting thing the previous person said in their check in. The first person to speak summarizes what the last person reported.
- Agree to look at the person speaking, not down at the floor or at a device. Especially important for video-conference standups.
- Agree to spend 10 seconds (10 seconds!) of silence between each check in, to honor the last person who spoke and actively shift attention to the next person to speak.

WHERE DO YOU GO FROM HERE?

The practices we've described in this little book are more like a handful of high quality seeds than a box of magic bullets. Cultivating them does take some time and patience. We've seen that even a little mindfulness applied to practices like value stream mapping and gemba walks does make a demonstrable difference right away. But to really reap the benefits – to break through the habits and conventions your organization has built up, maybe over many years – you do need to keep it up for a while.

Here are a few things you might do to make it a bit easier to keep going:

- **Choose just a few practices to get started.** We've made a lot of suggestions in this book. The last thing you need is one more set of obligations to fulfill! Pick a few items that stand out for you, see if you can do them consistently for a while, and – if they are helpful – you can add more over time.
- **Practice every day.** Both Lean and mindfulness are muscles that can only be built up over time through regular use. If your Lean practice has slipped, recommit to it. The mindfulness techniques we've discussed here should re-energize you and make you curious about how your practice will change with their application.
- **Explore ways to deepen your personal mindfulness practice.** Whether that is meditation, physical practices like yoga or tai chi, practicing empathy for others, or a host of other options, the more you can strengthen your mindfulness muscle outside the work context the more available it will be to you at work.
- **Connect with the many others who are bringing mindfulness practices into the workplace.** As we're writing this, there's a 25,000-person Mindfulness at Work virtual summit taking place. Since the practice itself has been around for a couple thousand years, and given the rate at which change is happening, it's likely that the recognition of the need for greater attention and personal presence in the workplace will only continue to grow.
- **If things go sideways...just start again.** Without a doubt, you and your team will get wrapped up in the past, the future, or resistance to the way things are. When that happens, just let it go and start again when you can. The great thing about the present moment is that it is always available.

ONE LAST BIT OF ADVICE

Our final piece of advice as you put these practices to work is to keep experimenting. Stay curious and open. Find your way back to the present moment and notice what's happening. If something we've described here doesn't work, then make the changes you need to make and try again. Be persistent and have fun!

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Want to Learn More About How Mindfulness and Lean Can Help Your Organization?

We'd love to help.
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