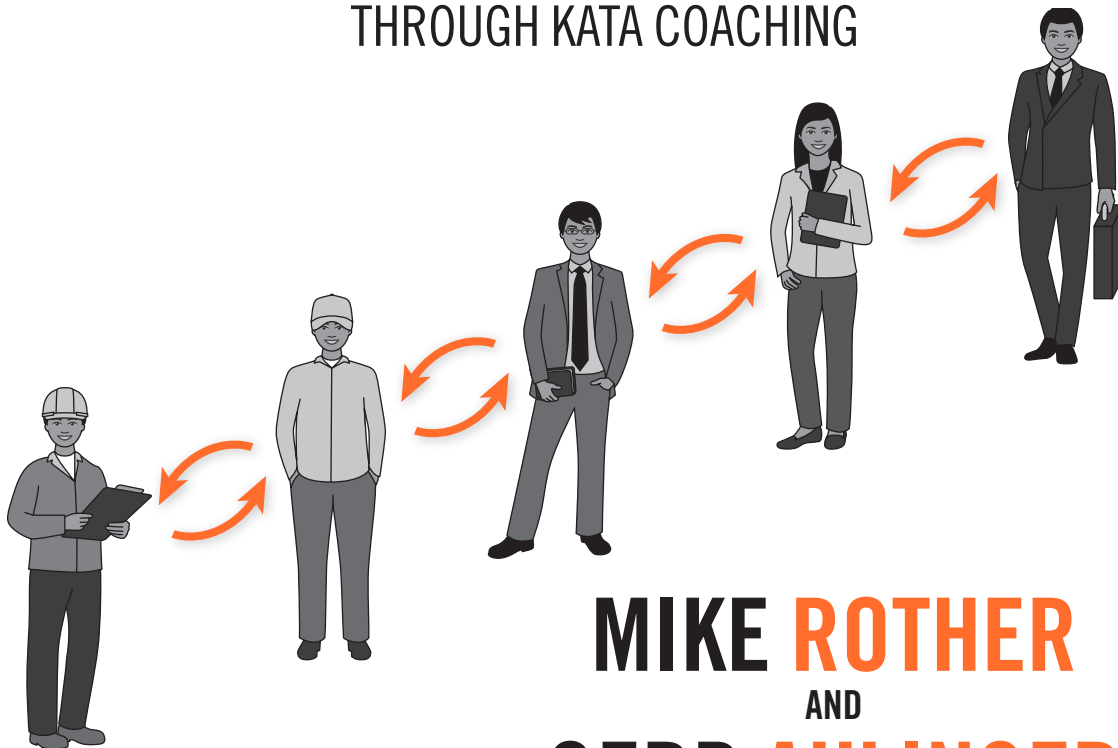


TOYOTA KATA CULTURE

BUILDING ORGANIZATIONAL
CAPABILITY AND MINDSET
THROUGH KATA COACHING



MIKE ROTHER
AND
GERD AULINGER

ILLUSTRATIONS BY LIBBY WAGNER



NEW YORK CHICAGO SAN FRANCISCO ATHENS
LONDON MADRID MEXICO CITY MILAN
NEW DELHI SINGAPORE SYDNEY TORONTO

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We never know exactly what steps
will lead to our goals, but we can practice
and learn *how to reach goals*.

FOREWORD

by Professor Jeffrey K. Liker

This is the first book I have read that provides a clear picture of what it takes to develop and mobilize creative capability across an organization, to achieve challenging goals.

Toyota has been using something called policy deployment annually since the 1960s to align improvement activities toward company-level challenges. It works, but all their internal charts about policy deployment include two little acronyms that Toyota believes are necessary to make it work—PS and OJD. “PS” refers to problem solving, which is the scientific approach for turning your level’s objectives into a meaningful plan and then iteratively working toward improving processes to achieve these objectives. “OJD” refers to on-the-job development, which is the way your manager coaches you day by day to develop the skills for scientific PS.

Without these competencies, policy deployment outside Toyota became just cascaded objectives for everyone to make the numbers however they could. The easiest path between your current situation and making the numbers is a straight line. Find things you already know how to implement and do them. Managers have been doing this since the dawn of bureaucracy, and they do make the numbers, but with little innovation and little real improvement in how the work gets done. That’s dangerous for any organization in the long run. Today we know that Toyota’s secret to driving real improvement, real thoughtful improvement, is PS and OJD. But this still begs the question: How do we do PS and OJD?

In *Toyota Kata* (2009), Mike Rother gave us a critical piece of the puzzle we were missing. He introduced a clear and actionable approach to developing these competencies in real people, especially those who do not work for Toyota, so that the skills for continuous improvement become habitual. It turns out that there is a general approach for developing complex skills of any kind, which we have known about for centuries, and it applies equally well to developing the skills for improvement. If you want to know what that is, glance in at a piano lesson or watch a good coach teach their players. What has evolved

over many years is a way of developing skilled musicians or athletes or artists or cooks or you name it, through deliberate practice.

Step one is to define what mastery means. In the case of Toyota-style Lean, Rother defined mastery as a scientific approach to improvement, which, by the way, the master teachers at Toyota have been saying about the Toyota Production System for over 70 years. Step two is to break down any complex skill into teachable pieces, which in the martial arts are called “Kata.” Kata are small routines or drills that, when practiced repeatedly, with a coach to correct deviations, generate new abilities and mindset. Think of the basic three-step pattern of dancing a waltz. At the beginning you have to master this by counting 1-2-3 and moving your feet in the proper way consciously. A scientific approach to improvement also requires fundamental skills that only become natural through practice.

The practice routines of the Improvement Kata are designed to help you develop scientific thinking skills. There are practice routines for understanding the direction, grasping the current condition, establishing the next short-term target condition to innovate toward, and then for experimenting to achieve that target condition. There are even Kata for the coach to practice, to learn how to provide corrective feedback without shutting down the learner.

The first step in the Improvement Kata is understanding the direction. This starts at the top with strategy, which is usually more than just cutting costs by some percent. What do we need to become in the next X number of years to better serve customers and beat our competition? It could be a new breakthrough product, it could be the fastest lead time in the industry, or it could be providing a level of service that customers have not yet seen.

The strategy gets broken down into an overall challenge for the business. This, in turn, gets broken down at each level, to challenges appropriate for that level. The challenge for sales will be different from the challenge for product development, which will be different from the challenge for operations. This gets figured out through back and forth coach/learner dialogues, like the ones shown in this book.

Once the direction is clear the magic happens, and the magic is not simply sprinting to the finish line. It is thoughtfully designing and running rapid experiments to iteratively learn your way to a new level of performance in the direction of the challenge. Teach the ability to do this at all levels of the organization and your capacity for delivering value to customers multiplies.

The chain of coaching that’s vividly illustrated in this book is what policy deployment should be, but rarely is. Without the Improvement Kata and Coaching Kata, few organizations

FOREWORD

have even a vision of what translating a deployed policy into real improvement looks like in practice. With the Kata, we have a means to go beyond a vision, to the skills required for actual practice.

If it seems I am excited about this it is because I am. I have been preaching for decades about how policy deployment is as much a people development approach as it is a way of getting the most critical results for the business. I have been preaching the importance of the process of translating business goals into meaningful objectives and measures at all levels and across the organization. And then experimenting to learn your way to these objectives. I can describe how Toyota does this, but that would not present a clear way to develop the competencies needed to make this real in your organization. And here it is! Read about it, think about it, get the picture. Then take your journey in a new direction based on strategic thinking and scientific execution. All it takes is the first practice step, and the next, and the next.

Ann Arbor, Michigan, USA
January 2017

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P R E F A C E

FROM KATA TO CULTURE

Toyota Kata Culture shows you how to scale up individual practice of the Improvement Kata and Coaching Kata across an entire organization, to create *team* scientific thinking capabilities that can be applied to any challenging objective.

Scientific thinking is perhaps the best way we have to navigate through unpredictable, unfamiliar, and complex territory, because it makes us more adaptive and creative in the face of uncertainty. You may view scientific thinking as something reserved for professional scientists, but it's actually a life skill for all of us. Practicing scientific thinking the way it is illustrated in this book puts you on a journey of integrating it into your organization's culture and answers questions such as:

- How do you align your organization so that, through their individual and team goals, everyone is ultimately working toward shared customer-oriented objectives?
- How do you make innovative improvement happen at every level?
- How do you ensure that each team works toward its goals in a systematic, scientific way, rather than jumping to conclusions?

Aligning an organization so everyone in it is working toward common goals has been an elusive goal in the business world. There have been many mechanical attempts to achieve this by “cascading” targets and metrics into an organization, but today we realize that we should, in tandem, develop the planning and execution skills of the people in the organization. We know, too, that building those skills takes practice, often starting with some simple practice routines, or “Starter Kata.”

Nowadays we often work in teams across departments, so ideally we have a shared set of skills that allow us to quickly and effectively work together. Scientific thinking is that kind of teamwork-enabling skill, and practicing it is at the root of building adaptive capability and culture. This book and its companions, *Toyota Kata* and *The Toyota Kata Practice Guide*,¹ focus on the people-development aspect of Toyota's management system. At Toyota the management hierarchy is responsible for improvement, and it uses daily work as the setting for practicing scientific thinking skills, with managers providing the coaching. The Improvement Kata and Coaching Kata make the fundamentals of that process transferable beyond Toyota to any organization.

Practicing the Improvement Kata and Coaching Kata doesn't supplant your current improvement methods. It helps build foundational skills that make you better at whatever improvement methods you use. What we especially like about practicing the Improvement Kata and Coaching Kata is that they give us a way to be creative, to communicate about issues without accusation, to become engaged, to think differently, and to test and fail with learning, not repercussions. However, the Kata themselves are not the goal. They are a means to an end: a set of practice routines for creating something bigger.

Learning Organizations

A "learning organization" gains knowledge through experience and experiment as a regular part of its everyday activities. It's about building a decentralized, objective-driven management system that utilizes brainpower at each level, creating an agile whole that thrives in complex, dynamic conditions by improving, adapting, and innovating.

The learning organization concept has been around since 1978,² but surprisingly few organizations have been able to operationalize it. One reason is that being a learning organization involves some scientific thinking habits that do not come naturally to us, such as:

- Improving in a strategic direction, rather than making random efficiency improvements.
- Systematically observing and measuring simply to understand.
- Defining specific future conditions predicted to lead to desired outcomes.

1 Publication in Fall 2017

2 Argyris, Chris, and Donald A. Schön, *Organizational Learning: A Theory of Action Perspective*, Boston: Addison Wesley, 1978.

- Going beyond implementation to experimentation.
- Making specific predictions in order to enable learning and adjusting.

The practice routines of the Improvement Kata and Coaching Kata give you basic building blocks for creating your own learning organization. Almost any organization can scale up toward thinking and working scientifically, via the kind of coached practice we have tried to clearly illustrate here.

Value Stream Mapping

This book also helps ensure that the popular Value Stream Mapping (VSM) tool gets used in its intended role. VSM is a method for analyzing the current state and designing a future state for the series of events that take a product or service from its beginning through to the customer. The main purpose of Value Stream Mapping is to give a sense of direction.³

Many VSM training materials have suggested drawing “kaizen lightning bursts” on the current-state map, to highlight sources of waste and other opportunities. This is incorrect. Do *not* put kaizen lightning bursts on a current-state map, because a “go find stuff to improve” approach leads to random, unaligned, and unscientific efforts. The reason for drawing a current-state map is not to see problems, waste, or improvement opportunities for quick resolution, but to provide a basis for designing a future-state value stream.

Once you understand the current state, draw a future-state map of how you would like the value stream to function, for its customers, six months to three years from now. *Then* add lightning bursts to that future-state map, to highlight the construction sites you think will be necessary for achieving your desired future state. It’s the future-state map that helps you focus and align individual improvement efforts by aiming them at an overarching goal. In the pages that follow notice how our example company, Acme Gearbox, utilizes VSM to help establish a strategic challenge and then utilizes the skills taught by practicing the Improvement Kata and Coaching Kata to work toward that challenge.

Over to You

We never know exactly what steps will lead to our goals, but we can practice and learn how to reach goals. Ideally, scientific thinking capabilities will be spread throughout an

³ One of us, Mike, is co-author of the original guidebook that introduced VSM.

organization, which makes teaching them the responsibility of every manager. In fact, today the routines of the Improvement Kata and Coaching Kata are being practiced in organizations in just about every imaginable industry.

Organizational culture can be seen as *mindset imparted by our experiences at work*. We've been watching the development of a more scientific thinking mindset at organizations that practice and experiment with chains of Kata coaching up and down their organization. It works remarkably well. Let us paint the picture for you.

Mike Rother
Ann Arbor, Michigan
January 2017

and

Gerd Aulinger
Munich, Germany

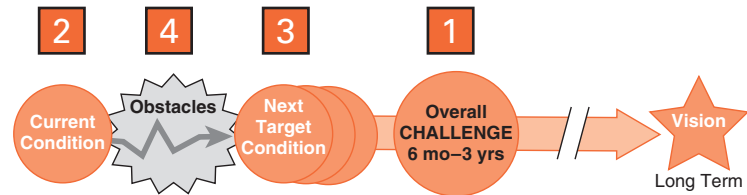
THE IMPROVEMENT KATA

A SCIENTIFIC PATTERN FOR EVERYONE

Let's face it—We have a natural tendency to jump to conclusions without realizing that our unconscious predispositions are influencing what we see, think and do. You can make scientific, creative working a habit, and get more comfortable with uncertainty, by practicing the repeatable, 4-step pattern called the *Improvement Kata*.



A *Kata* is a routine you practice to make its pattern a habit.



START HERE

1

Describe the overall challenge you're striving for, in a meaningful way.

What new situation do you want to have 6 months to 3 years from now?



Future-state mapping is a useful tool here.

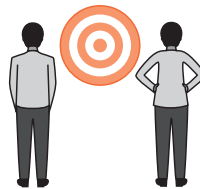
USE THE OVERARCHING CHALLENGE AS A FRAME FOR THE FOLLOWING STEPS

2

Current Condition: Study the facts and data of where you are now. You're trying to see, sketch, measure, and understand the current pattern, as an input to Step 3.



3



Next Target Condition: Now describe where you want to be *next* on the way to your challenge. It will usually take a series of target conditions to reach your challenge goal. Be sure the target condition is measurable in some way, and has a specified achieve-by date between one week and three months out.

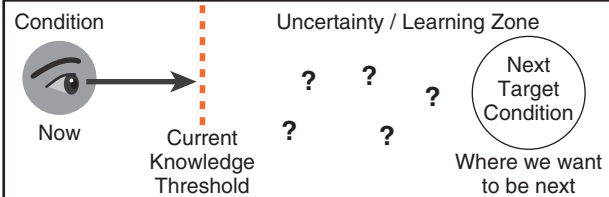
4

Experiment Toward the Target Condition: You can't foresee the exact path to the target condition. The obstacles you encounter show you what you *need* to work on to get there. Find the path by conducting experiments daily, using the *experimenting record* and asking the *five Coaching Kata questions* after each experiment.



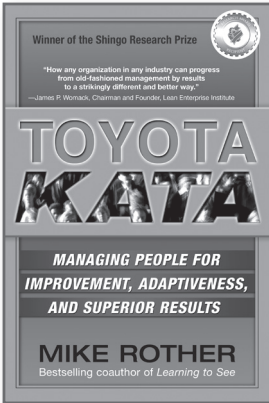
The point at which you have no facts and data is the *threshold of knowledge*. There's always a threshold of knowledge.

To see further, conduct your next experiment there.

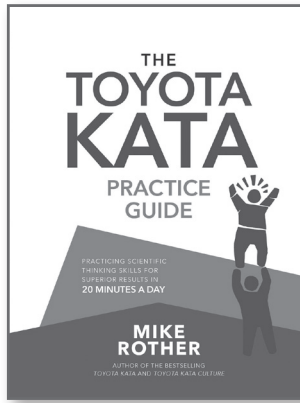


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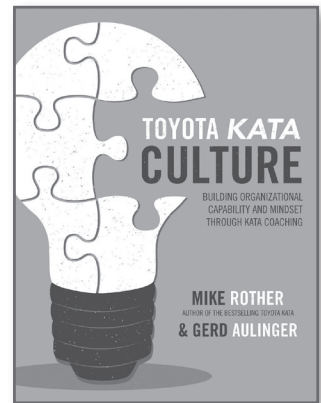
Lead, Manage, and Develop Your People the 21st Century Way with the Toyota Kata Books from McGraw-Hill



The original research report that started it all.



Shows you how to do the scientific-thinking practice routines of the Improvement Kata and Coaching Kata.



Shows you how to expand practice of the Improvement Kata and Coaching Kata throughout your organization.



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