

Toyota Kata: Using Toyota’s “Improvement and Coaching Katas” to Take Your Lab Team to a Higher Level of Problem-Solving and Performance Improvement

Presentation by M. Susan Stegall, Management Consultant

Lab Quality Confab

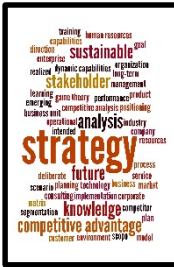
October 21, 2014

2:00 PM to 2:50 PM

Presentation Includes Slides By Mike

Rother Courtesy of Slide Share

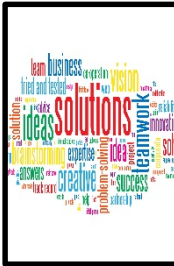
Learning Objectives



Share with attendees my attraction to Toyota Kata, specifically in how it helps leadership deliver a strategic plan, several years out,



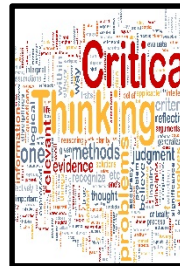
Discuss the essential link between leadership coaching and continuous improvement,



Share with attendees how Toyota Kata redefines everyone's approach to work,



Identify opportunities to integrate the coaching / improvement katas into your current lean improvement efforts, and



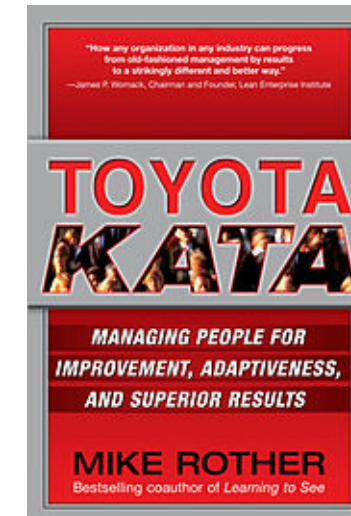
Explain why I believe Toyota Kata routines define the pathway to competitive advantage and organizational survival.

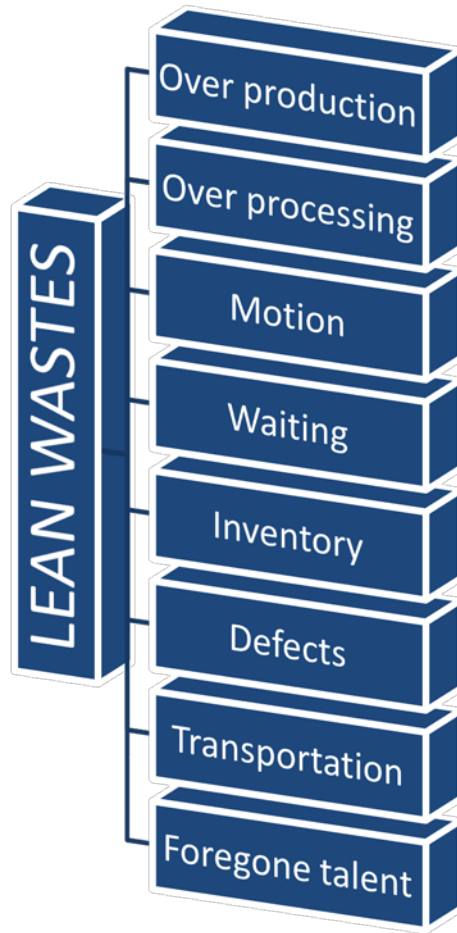
Delivering a Strategic Plan— Another “Aha” Moment, a.k.a., My Attraction Toward Toyota Kata



● Lean Six Sigma Summit 2012

- ◆ Healthcare process improvement perspective
- ◆ Story—the general session speaker who threw out all those other “Books” and embraced Mike Rother’s *Toyota Kata to deliver \$92M in cost savings for her system.*





- ◀ **Lean Wastes**
- **Value Stream Mapping**
- **Root Cause Problem-solving**
 - ◆ A3
 - ◆ Fishbone diagram
 - ◆ 5 why's
- **Kaizen (Rapid Implementation)**
 - ◆ Deming's PDCA
 - ◆ Action Plan (Management 101)

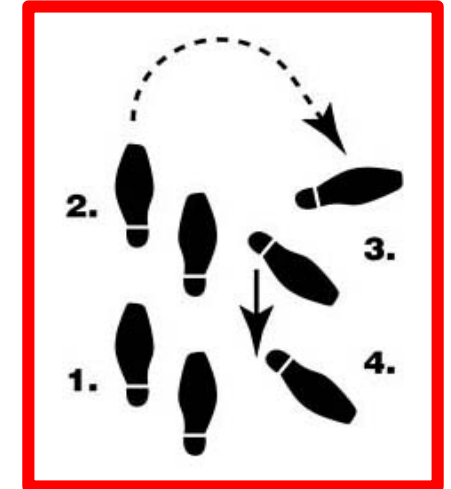
Refresher Course



What Is a Kata?

By Mike Rother Courtesy of Slide Share

1. Kata are structured routines you practice deliberately, especially at the beginning, so their pattern becomes a **habit** and leaves you with new abilities,
2. Are typically used for learning fundamentals, i.e., standard work to build on, and
3. Are a way of transferring skills and developing shared abilities and mindset in a team or organization.

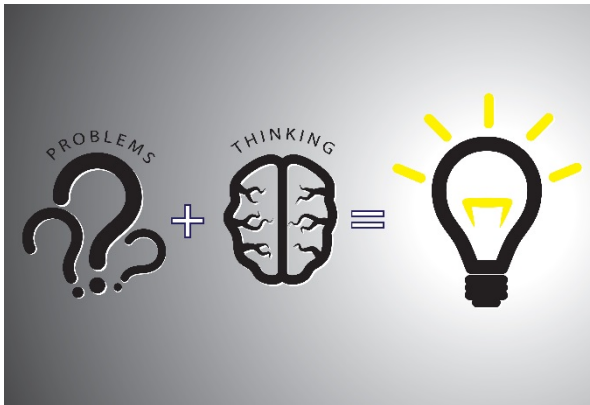
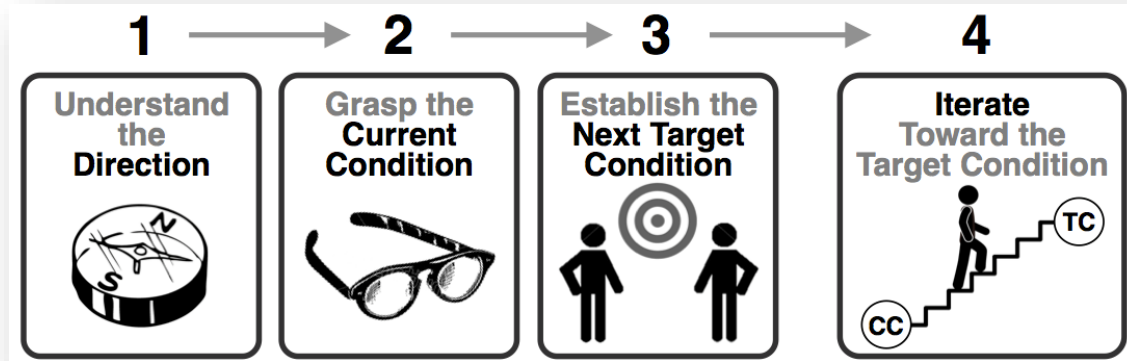


Learning to hit a golf ball consistently, or playing a guitar well, or operating multiple instruments efficiently.

“Let’s begin by practicing it this way for a while.”

The Improvement Kata

By Mike Rother Courtesy of Slide Share



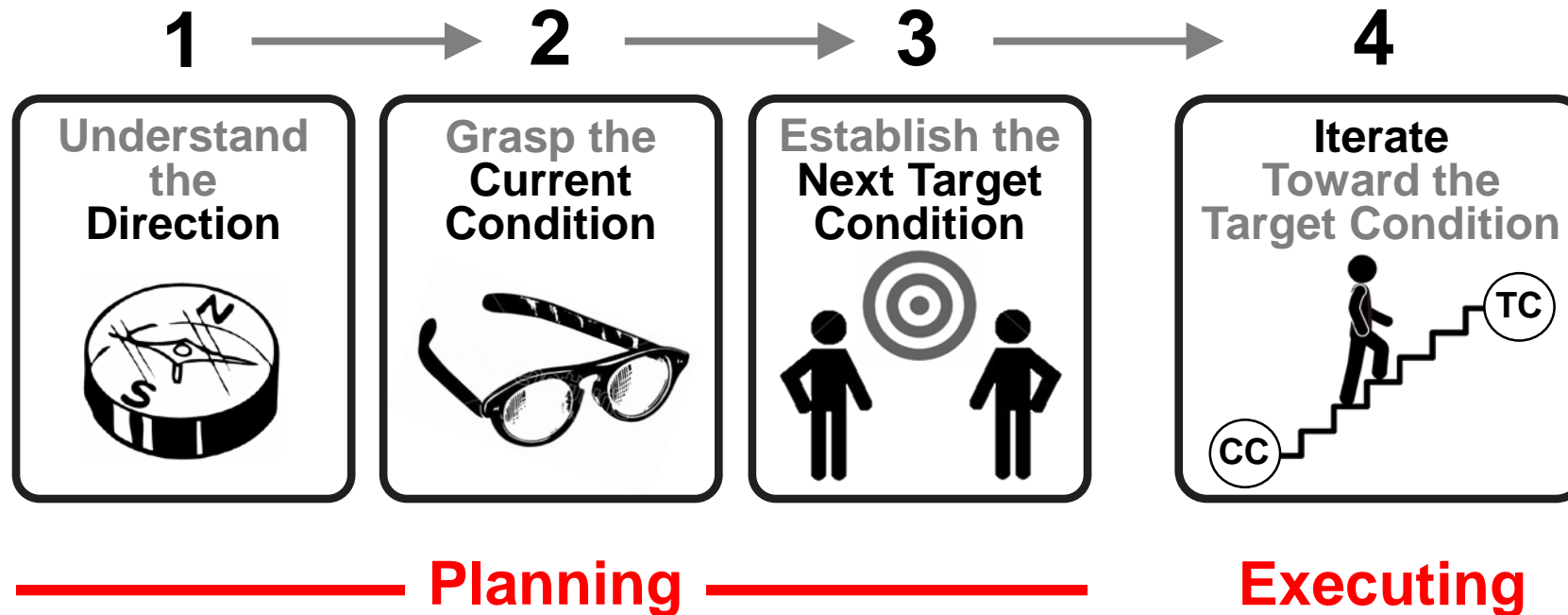
- The Improvement Kata is a model of the human creative process.
- It's a 4-step pattern of establishing target conditions:
 1. Understand the direction,
 2. Grasp the current condition,
 3. Establish the next target condition,
 4. Then working iteratively (scientifically) through obstacles to achieve the target, always learning from the process, and adapting based on what's being learned.

The Improvement Kata model comes from research into how Toyota manages people, which is summarized in the book "Toyota Kata"

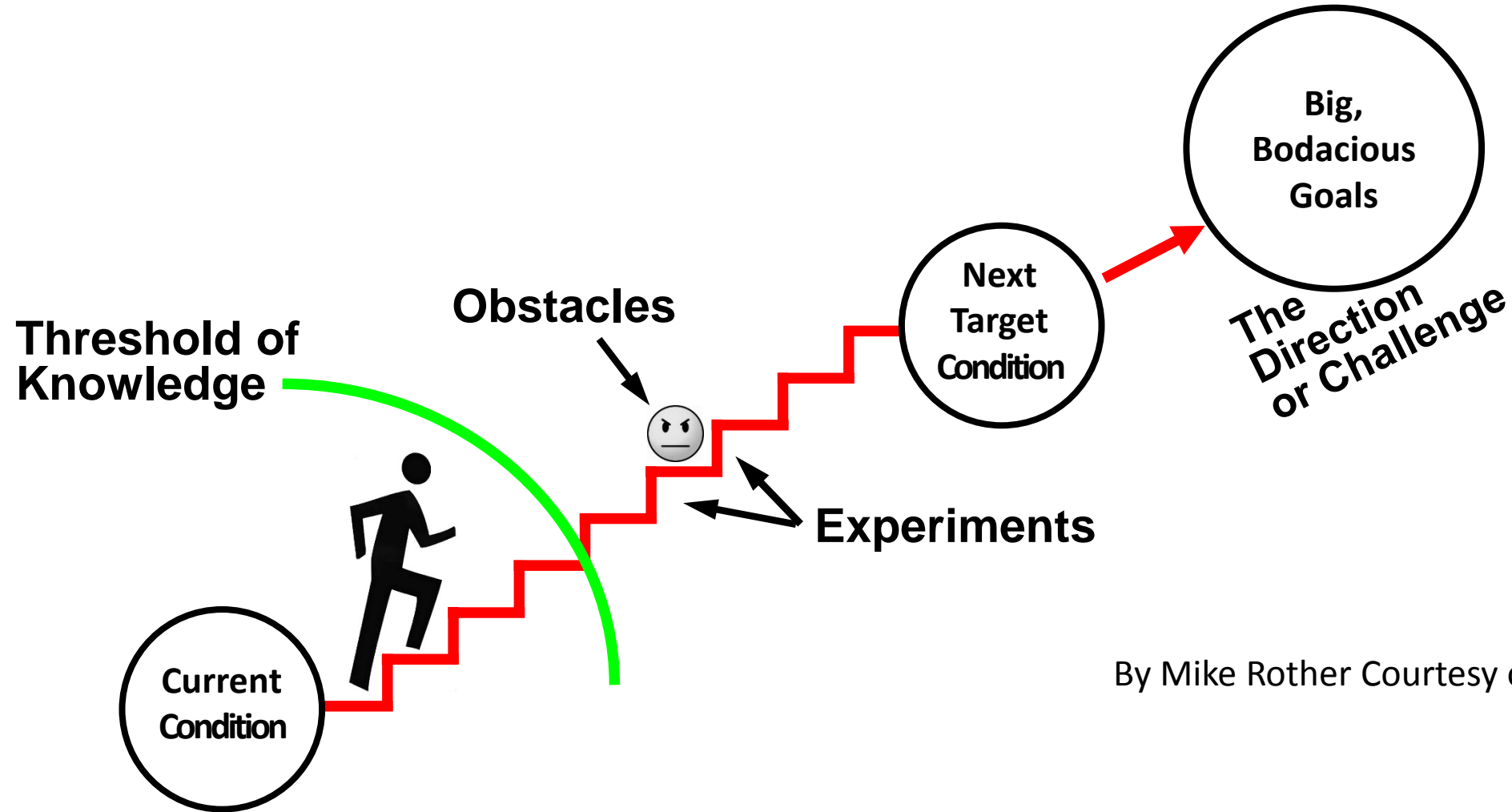
The Four Steps of the Improvement Kata Model

By Mike Rother Courtesy of Slide Share

- A systematic, scientific pattern of working



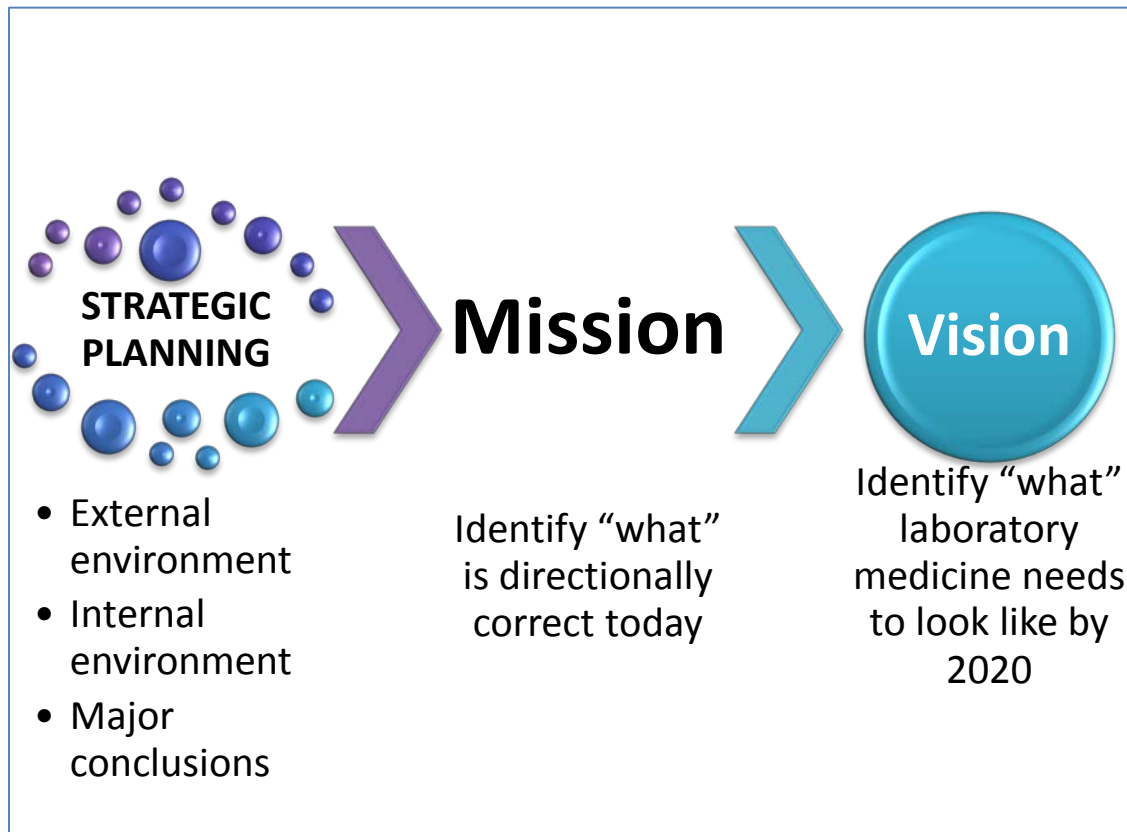
Terminology



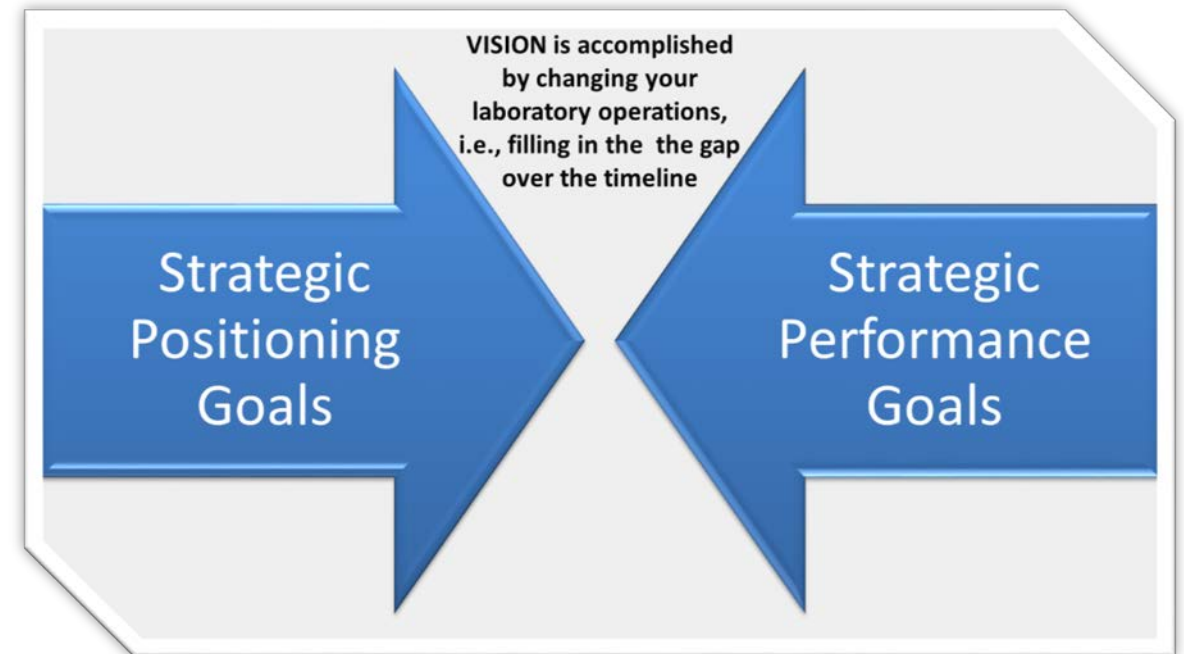
By Mike Rother Courtesy of Slide Share

Strategic Planning— Red Dot Story

Planning Direction: Huge Change in the Healthcare Industry



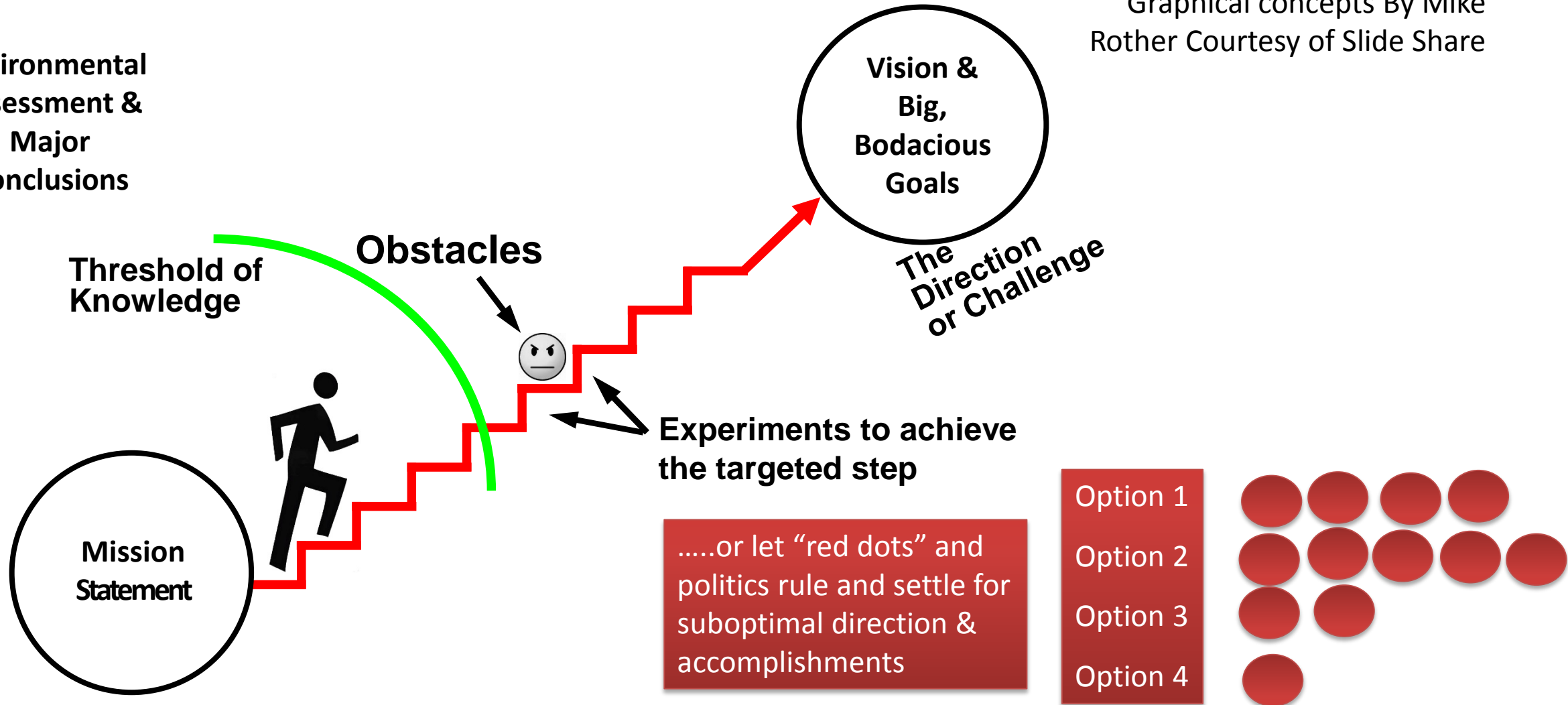
Planning Direction: Setting Those Big, Bodacious Goals, 3 to 5 Years Out



Applying Toyota Kata to Strategic Planning

Graphical concepts By Mike Rother
Courtesy of Slide Share

**Environmental
Assessment &
Major
Conclusions**



The Improvement Kata Pattern Is a Scientific Approach

By Mike Rother Courtesy of Slide Share

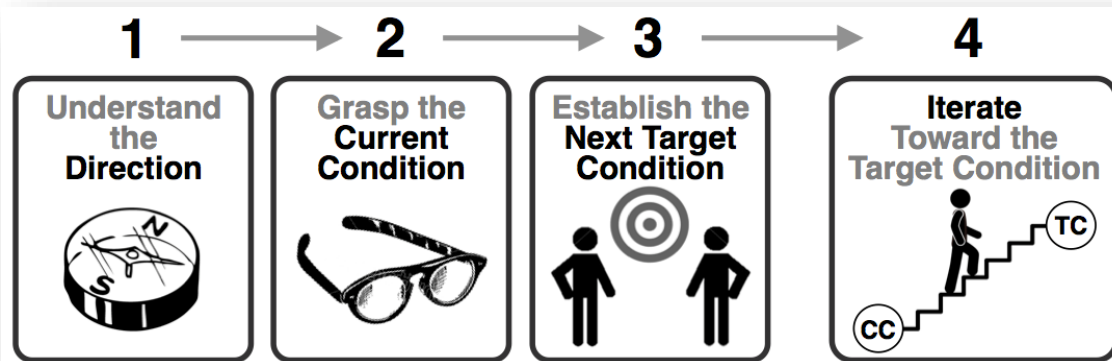
- **Since the path to a challenging goal cannot be predicted with exactness, we have to find that path by experimenting like a scientist.**
 - ◆ With each insight a scientist adjusts his/her course to take advantage of what has just been learned.
- **The scientific process helps you find the path not by telling you what's ahead.**
 - ◆ It only confirms or refutes the results of experiments.
- **One trick to making effective progress toward a goal is not to try to *decide* the way forward, but to have your team *iterate* its way forward by experimenting as cheaply and rapidly as possible.**
 - ◆ This is the *action of innovation* and it can be taught.



The Coaching Kata

By Mike Rother Courtesy of Slide Share

- The Coaching Kata is a pattern for managers to follow in teaching the Improvement Kata pattern in daily work, so that it becomes part of an organization's culture.
- It's a management system for developing people to meet challenges



The Coaching Kata

By Mike Rother Courtesy of Slide Share

COACHING KATA

The Five Questions

- 1) What is the **Target Condition**?
- 2) What is the **Actual Condition** now?
-----(*Turn Card Over*)----->
- 3) What **Obstacles** do you think are preventing you from reaching the target condition?
Which **one** are you addressing now?
- 4) What is your **Next Step**?
(Next experiment) What do you expect?
- 5) How quickly can we go and see what we **Have Learned** from taking that step?

*You'll often work on the same obstacle with several experiments

Reflect on the Last Step Taken

Because you don't actually know what the result of a step will be!

- 1) What did you plan as your **Last Step**?
- 2) What did you **Expect**?
- 3) What **Actually Happened**?
- 4) What did you **Learn**?

----->
Return to question 3

Card is downloadable at:

http://www-personal.umich.edu/~mrother/KATA_Files/5Q_Card.pdf

The Five Coaching Kata Questions and the PDCA Cycles Record Are Used Together

By Mike Rother Courtesy of Slide Share

5-Question Coaching Dialog

Rapid PDCA Cycles

Gemba Walks

COACHING KATA

The Five Questions

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PDCA CYCLES RECORD <small>(Each row = one experiment)</small>				
Obstacle:		Process:		
		Learner:	Coach:	
Date, step & metric:	What do you expect?	Do a Coaching Cycle Conduct the Experiment	What happened	What we learned

Used by the Coach

Used by the Learner



Ask the Five Questions at Each Step

By Mike Rother
 Courtesy of
 Slide Share



PDCA CYCLES RECORD <small>(Each row = one experiment)</small>			
Obstacle:		Process:	
		Learner:	Coach:
Date, step & metric:	What do you expect?	What happened	What we learned



COACHING KATA

The Five Questions

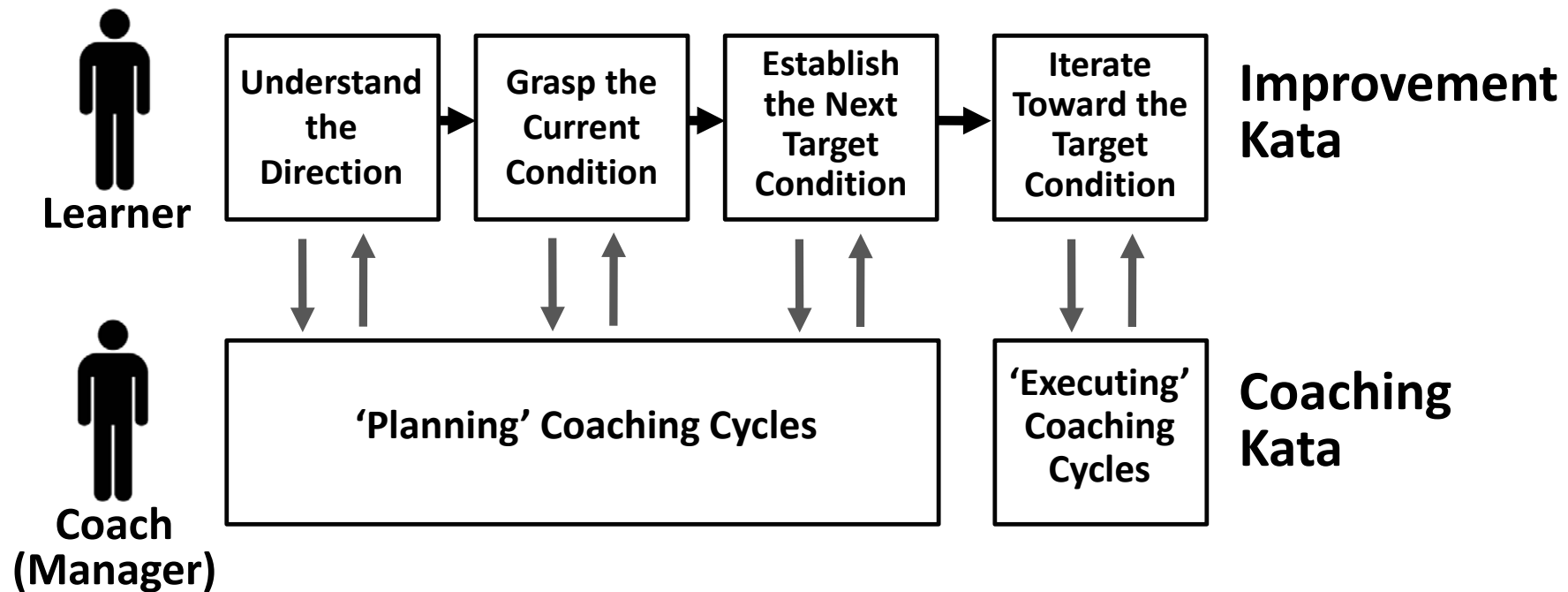
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The Improvement Kata + the Coaching Kata

By Mike Rother Courtesy of Slide Share



Katas Are Like Rocket Engines— They Help You Get Started

By Mike Rother Courtesy
of Slide Share

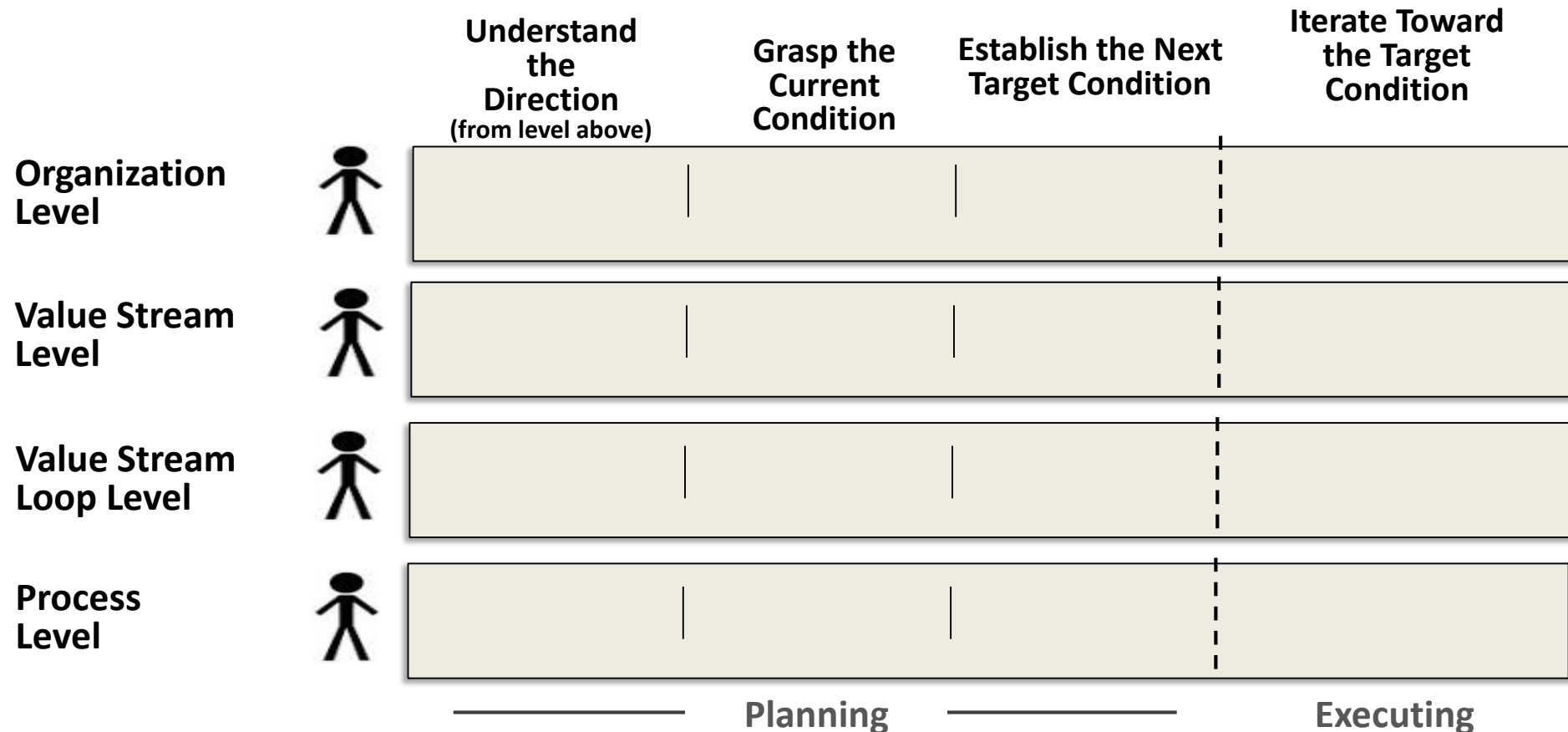


- **Beginners should follow Kata exactly—not deviating from them so the Learner can internalize the patterns [create the habit].**
 - ◆ But with increasing proficiency each Learner can start to (within limits) develop their own style.
- **Likewise, over time each organization can evolve the Kata it began with to better suit and mesh with its culture.**
 - ◆ The original Katas evolve into organization-specific practice routines.

The Improvement Kata Pattern Is Used at All Levels

By Mike Rother
Courtesy of Slide
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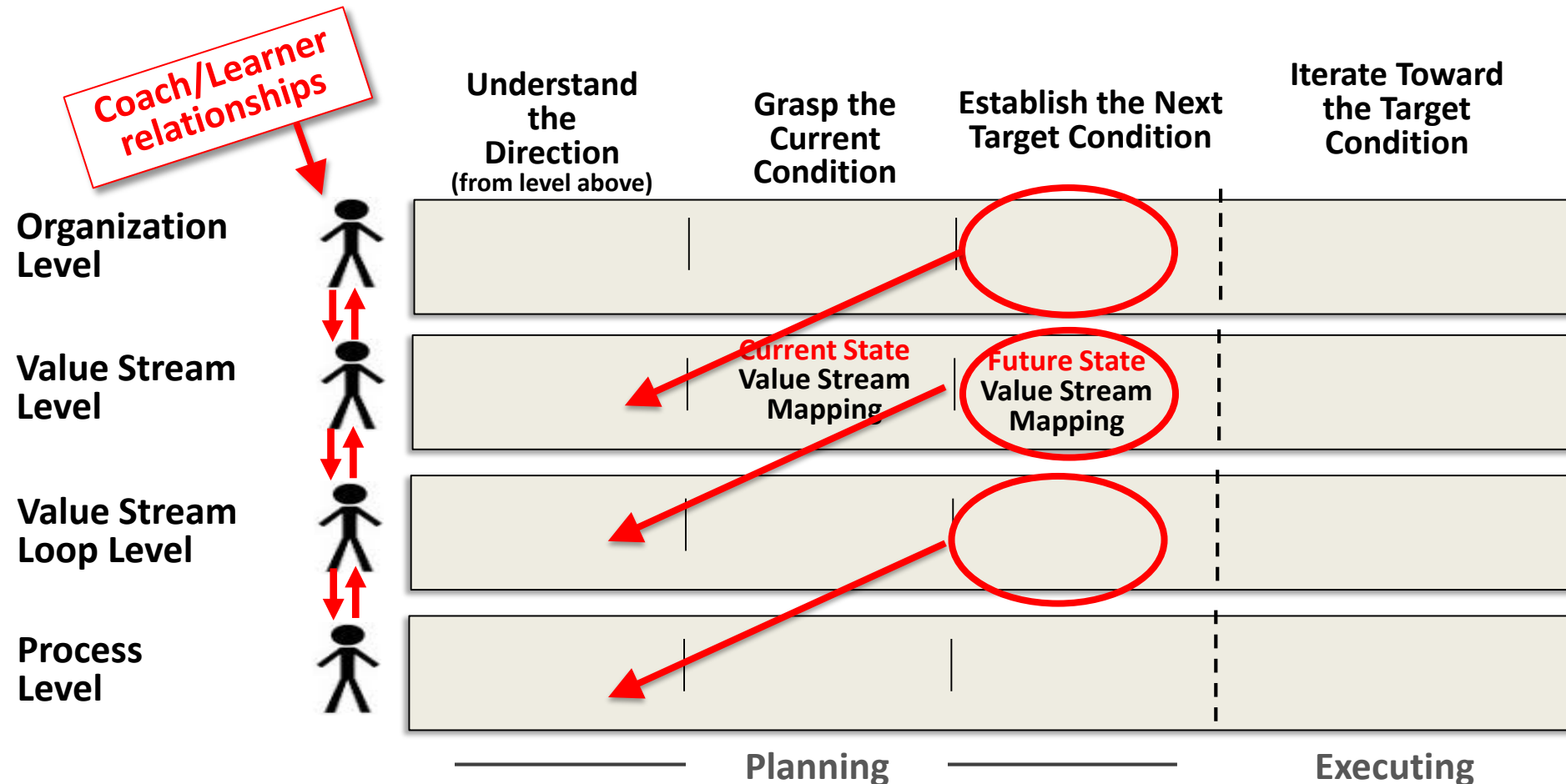
- The content is different, but the pattern of thinking is the same!



The Improvement Kata Pattern Connects the Levels

By Mike Rother
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- A *Target Condition* at one level is the *Direction* for the next level



A Few Skill-development Basics

By Mike Rother Courtesy of Slide Share



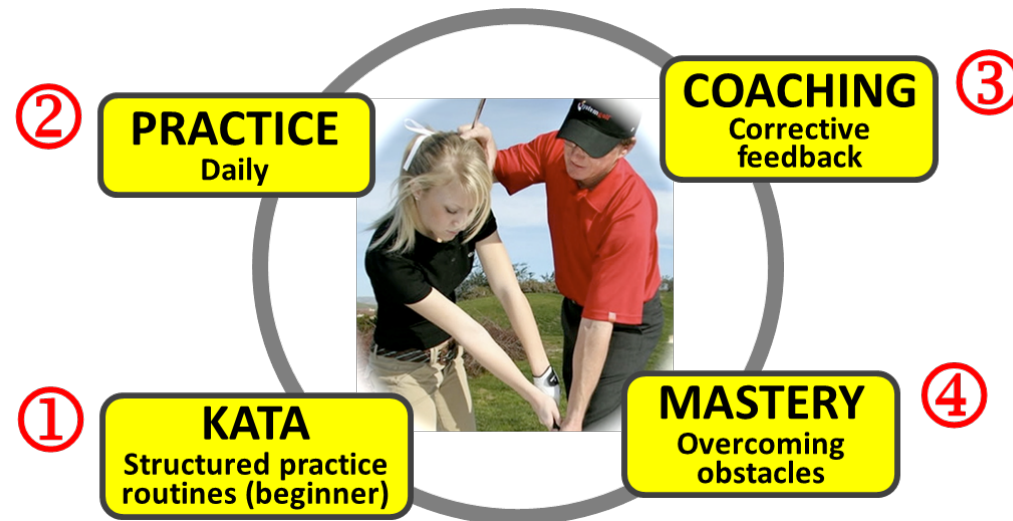
- Any complex performance requires skill.
- We develop new skill through practice.
- Long time-gaps between practice sessions diminishes the effectiveness of practice.
 - Daily often seems to be a good frequency.
- We are not good at self-feedback to understand where we are deviating from good practice and, therefore, we need corrective feedback, i.e., coaching.

4 Ingredients For Acquiring New Skills

By Mike Rother Courtesy of Slide Share

- **Brain research is clear:**

- ◆ To develop new habits you should practice new routines and experience a progressive sense of mastering them.
- ◆ The following ingredients help us rewire our brain to acquire new skills and mindset.



The Benefits of Practice Routines

By Mike Rother Courtesy of Slide Share

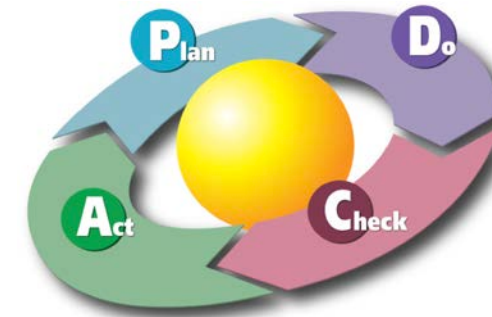
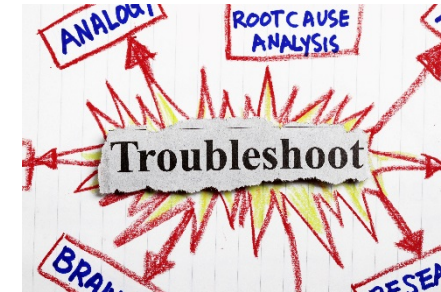
- The Improvement Kata & Coaching Kata don't just model a way of working, they also include *structured practice routines* to make their pattern teachable and transferrable.
 - ◆ This is a way to build improvement capability into an organization and make effective empowerment possible.
- A team or organization that's pursuing continuous improvement will do well to use some structured practice routines -- Kata -- for developing new behavior, habits and culture, especially at the beginning.



Why Kata for Continuous Improvement?

By Mike Rother Courtesy of Slide Share

- 'Continuous improvement' suggests many minds engaged in improving their processes, and daily cycles of experimentation.....Yet our existing work routines rarely include improvement.
- **Systematically and scientifically improving processes is a complex skill set we are not naturally good at!**
- *We can learn systematic, scientific improvement through deliberate practice of the Improvement Kata routines.*



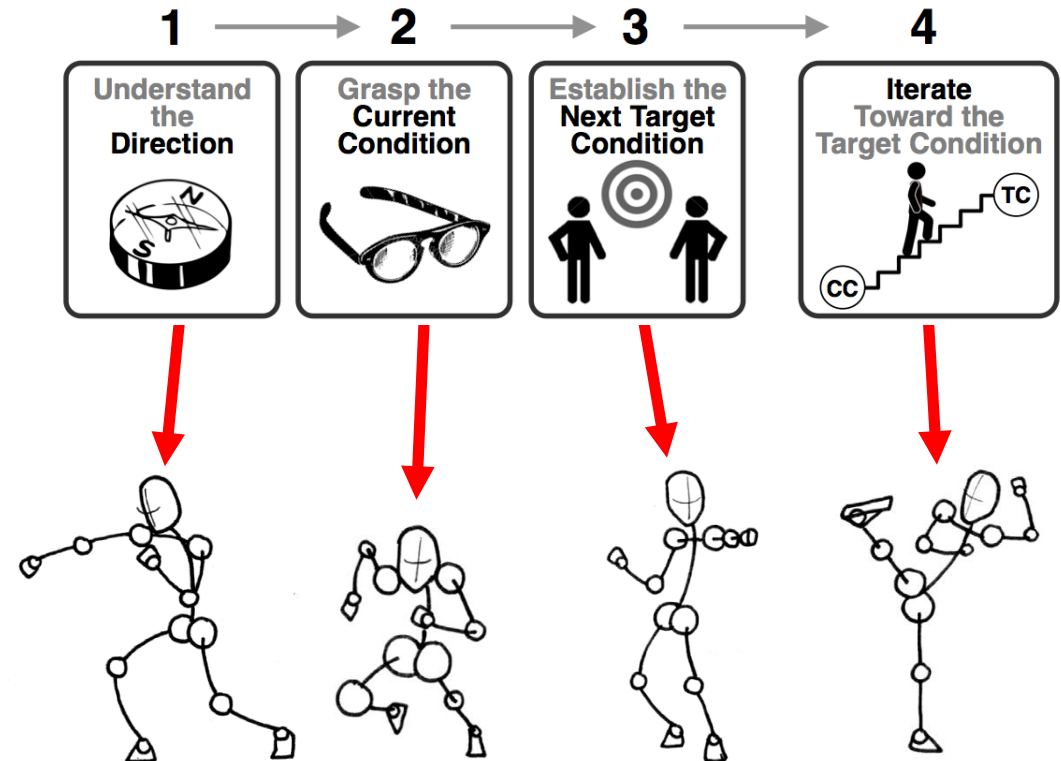
There Are Practice Routines for Each Step of the Improvement Kata

By Mike Rother Courtesy of Slide Share

1. Strategic Direction
2. Value Stream Map—grasping the Current State
3. Future State Value Stream Map—Gap-filling target conditions
4. Kaizen (PDCA)

The **scientific pattern** of the Improvement Kata model is universal

Structured **practice routines** are a way to begin to operationalize the Improvement Kata pattern

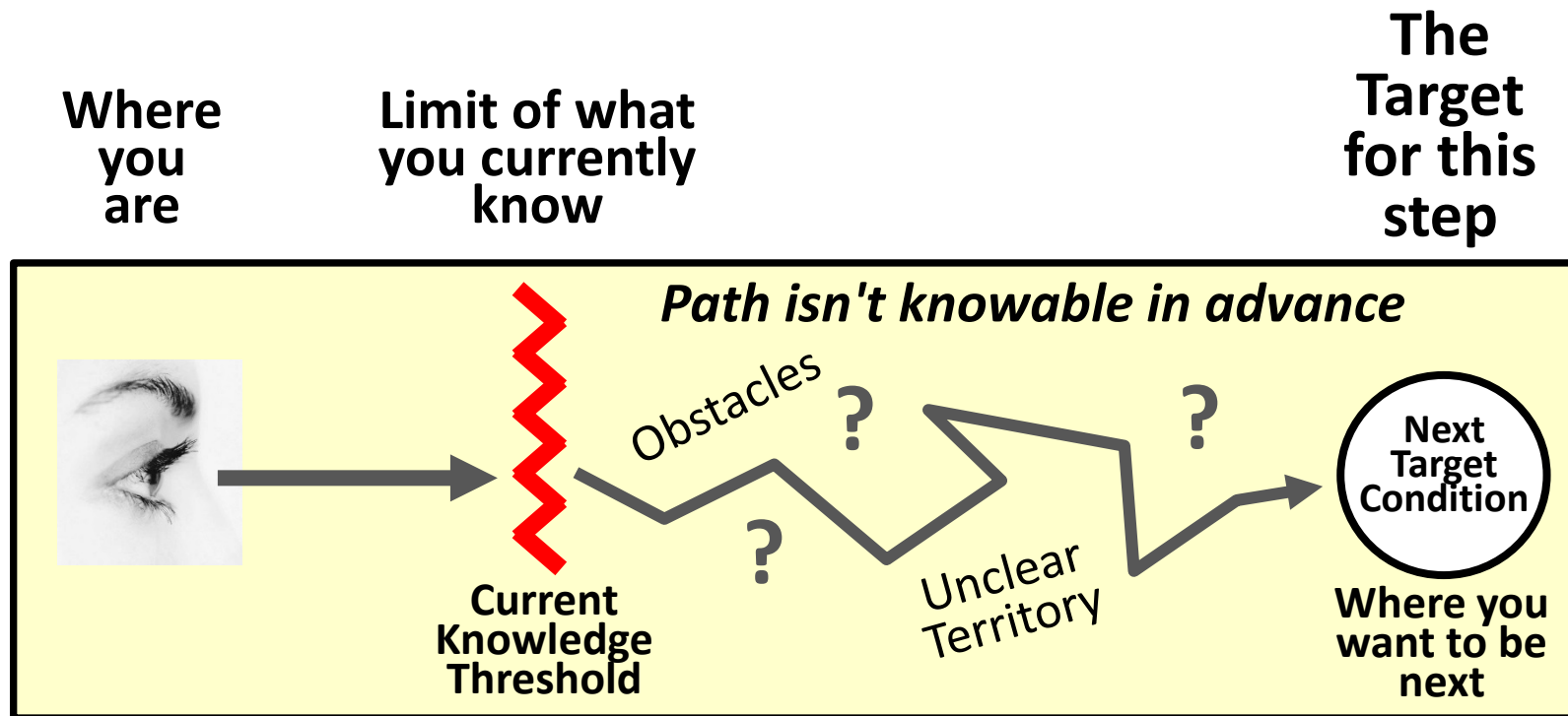


* http://www-personal.umich.edu/~mrother/Materials_to_Download.html

There's a *Threshold of Knowledge* between You and Your Goal

By Mike Rother Courtesy of Slide Share

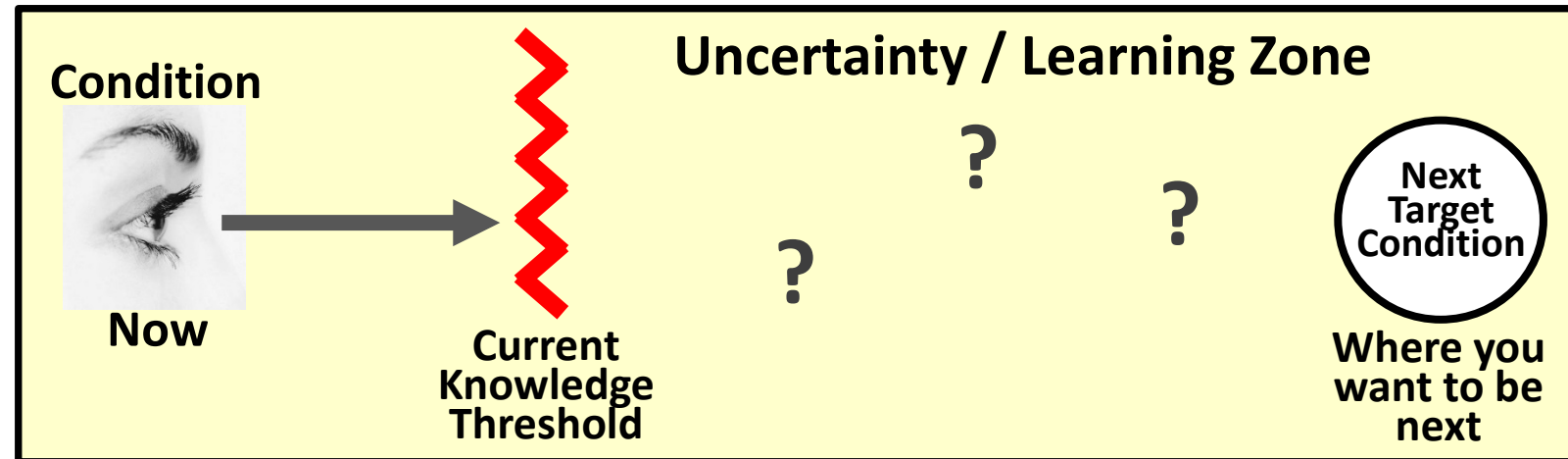
- It's the point at which you have no facts or data & start guessing



What Should You Do at the Threshold of Knowledge?

By Mike Rother
Courtesy of Slide
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- **Acknowledge it.**
 - ◆ (Difficult to do, until you get into the habit.)
 - ◆ Key realization: There's *always* a threshold of knowledge.
- **Stop and see further by conducting an experiment.**
 - ◆ Don't deliberate over answers.
 - ◆ Deliberate over the next experiment.



Practicing the Improvement Kata Teaches Scientific Thinking

By Mike Rother Courtesy of Slide Share

- Use deliberate practice of the Improvement Kata routines in order to make basic skills of scientific thinking more automatic.

➤ **That's the Kata part.**



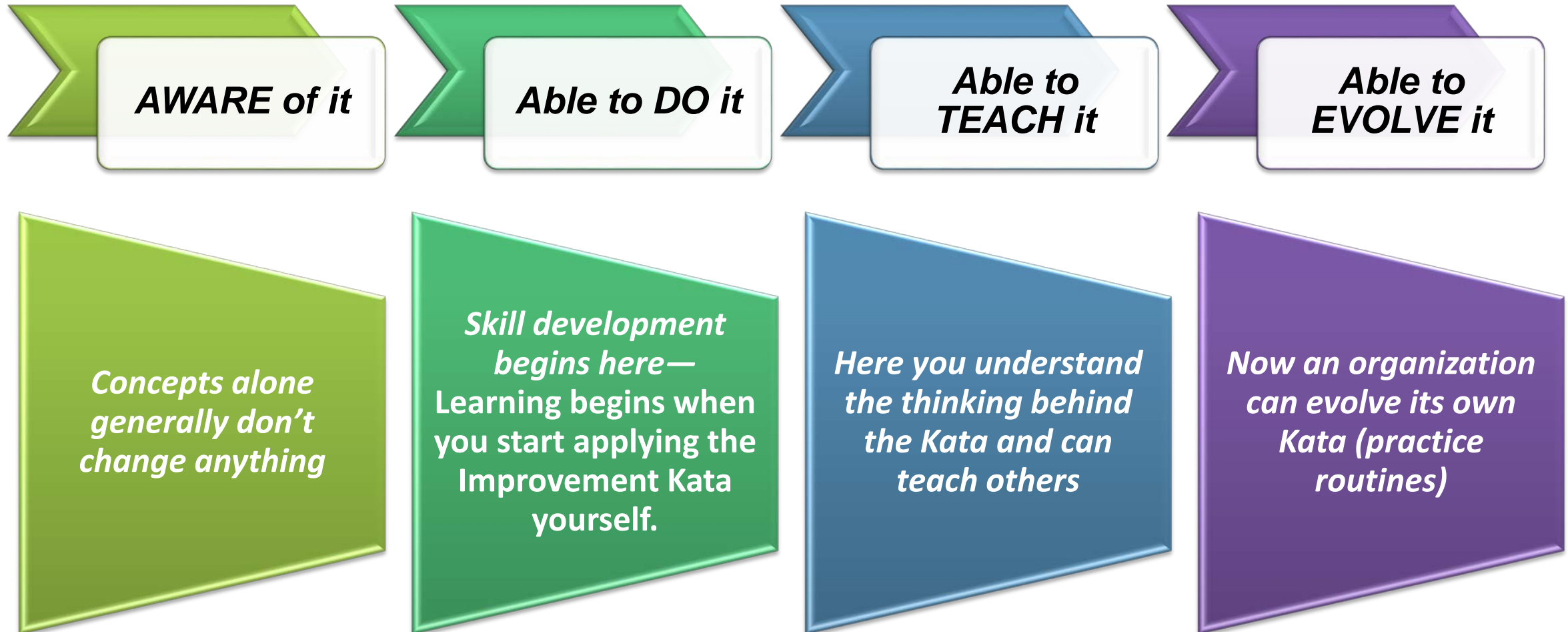
- Those automatic fundamentals are then a foundation upon which all sorts of creativity and initiative can proliferate in your team and organization, to achieve what seems impossible.

➤ **That's improvisation & creativity!**



Levels of Improvement Kata & Coaching Kata Skill Development

By Mike Rother Courtesy of Slide Share

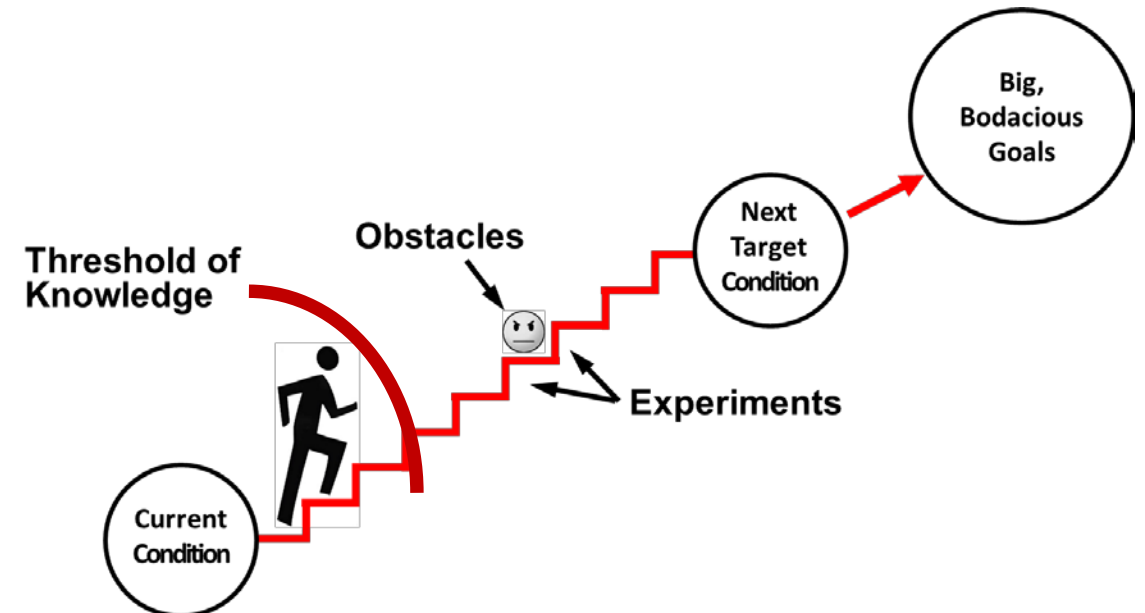


Opportunities to Integrate the Coaching / Improvement Katas into Your Current Operations

Big, Bodacious Goals



Target Condition—Step by Step



Toyota Kata Routines— The Pathway to Competitive Advantage & Organizational Survival

1) The
Neogenomics
Story

2) Culture
change by
changing the
way people
think about
work

3) Sustaining
an
improvement
culture

4) Optimized
root cause
problem
solving

5) Rapid
improvement—
Kaizen/PDCA

Questions / Discussion

