

**FOR
DISCUSSION**



Bill Costantino

and



Mike Rother

IN

THE WRONG KATA

for Continuous Improvement

HOW DO YOU CURRENTLY TRY TO IMPROVE?

The following is intended to prompt reflection and discussion.
We hope you find our observations and comments useful.



We think it's possible that we've frequently relied on a mistaken idea -- a mistaken mindset -- as our way of continuously improving:

We've often thought of improvement as reacting to abnormalities and applying problem-solving steps to them.

In many cases that alone is an unsustainable approach.

IT'S A COMMON APPROACH

We call it *“troubleshooting”*



1 → 2 → 3 → 4

Notice a
problem,
abnormality
or opportunity



Prioritize



Action-Item
List



Implement

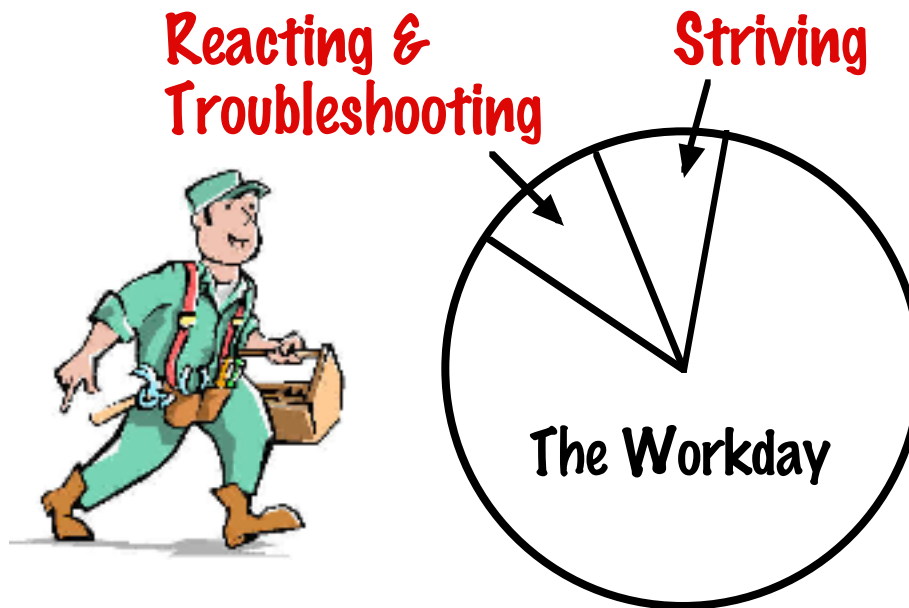


Examples:

- Respond to an abnormality
- Current-state Value Stream Map only, and then going after the lightning bursts
- Waste walks
- Asking people / brainstorming:
“What should we improve?”

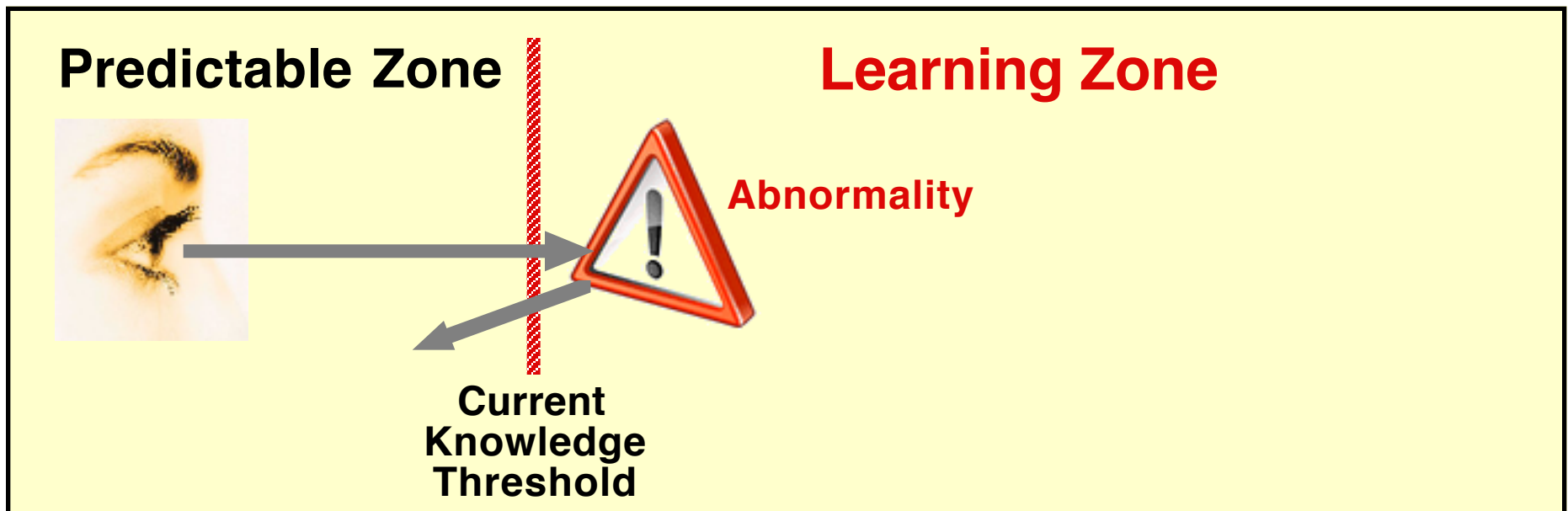
BUT SUSTAINED COMPETITIVENESS TAKES BOTH TROUBLESHOOTING AND STRIVING

They are two different activities and mindsets, and we seem to be relying too much on troubleshooting alone



WHAT'S HAPPENING WITH THE TROUBLESHOOTING APPROACH?

The typical idea is to avoid; to try to get *back* to a more predictable state that we think we had. But that's often an illusion and not reachable with troubleshooting alone





HERE'S WHY

- ▶ There's no question that we have to respond to abnormalities in order to serve the customer. Troubleshooting gets practiced automatically, which may explain our widespread reliance on it. If an operator gets bad parts, a machine breaks down, etc., we have to respond. If we then do a root-cause analysis on the abnormality it's also possible that an increment of improvement can be achieved.
- ▶ But the overall effect of chasing abnormalities is often a kind of oscillation, rather than progress. Why? Because many of those abnormalities are normal for the process as it's currently designed and operated. With the troubleshooting approach we may only be tinkering within the normal variation currently inherent in a process. Deming even suggested that 80-97% of process variation is systemic, *common cause* variation.





HERE'S WHY (continued)

- ▶ Examining each abnormality, looking for its cause and then adjusting something in order to solve the problem is not a good improvement approach when you're dealing with systemic problems. In order to improve in this situation the system itself must be understood and changed.
- ▶ Instead of only reacting to abnormalities we should also examine the current operating pattern of the process, develop a next desired operating pattern and iteratively work toward that operating pattern. This is a more systematic approach to improvement.
- ▶ In the long run homeostasis is probably not even possible, due to entropy and competition. You're either getting a little better or a little worse.



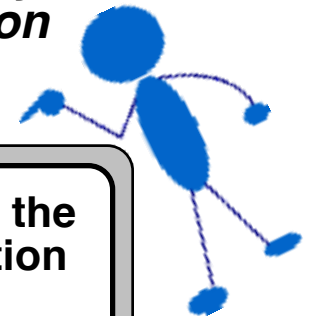


A DIFFERENT APPROACH

More systematic improvement

It's here that you discover what you need to work on

1 → 2 → 3 → 4

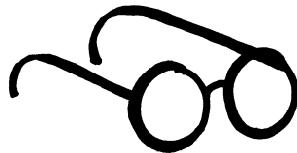


Understand the
Direction



What challenge are you striving to meet?

Grasp the
Current Condition



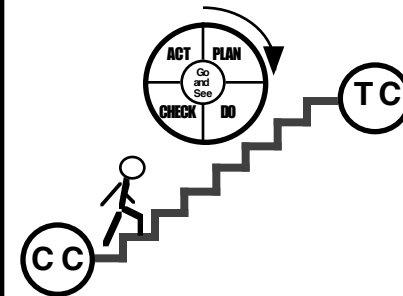
What is the process's current pattern?

Establish the
Next Target Condition



What pattern do you want to have next?

PDCA Toward the
Target Condition



The step-by-step discovery process between where you are and where you want to be next.

Sometimes called *Gap*

TROUBLESHOOTING - EXAMPLE

An automated machine has frequent breakdowns

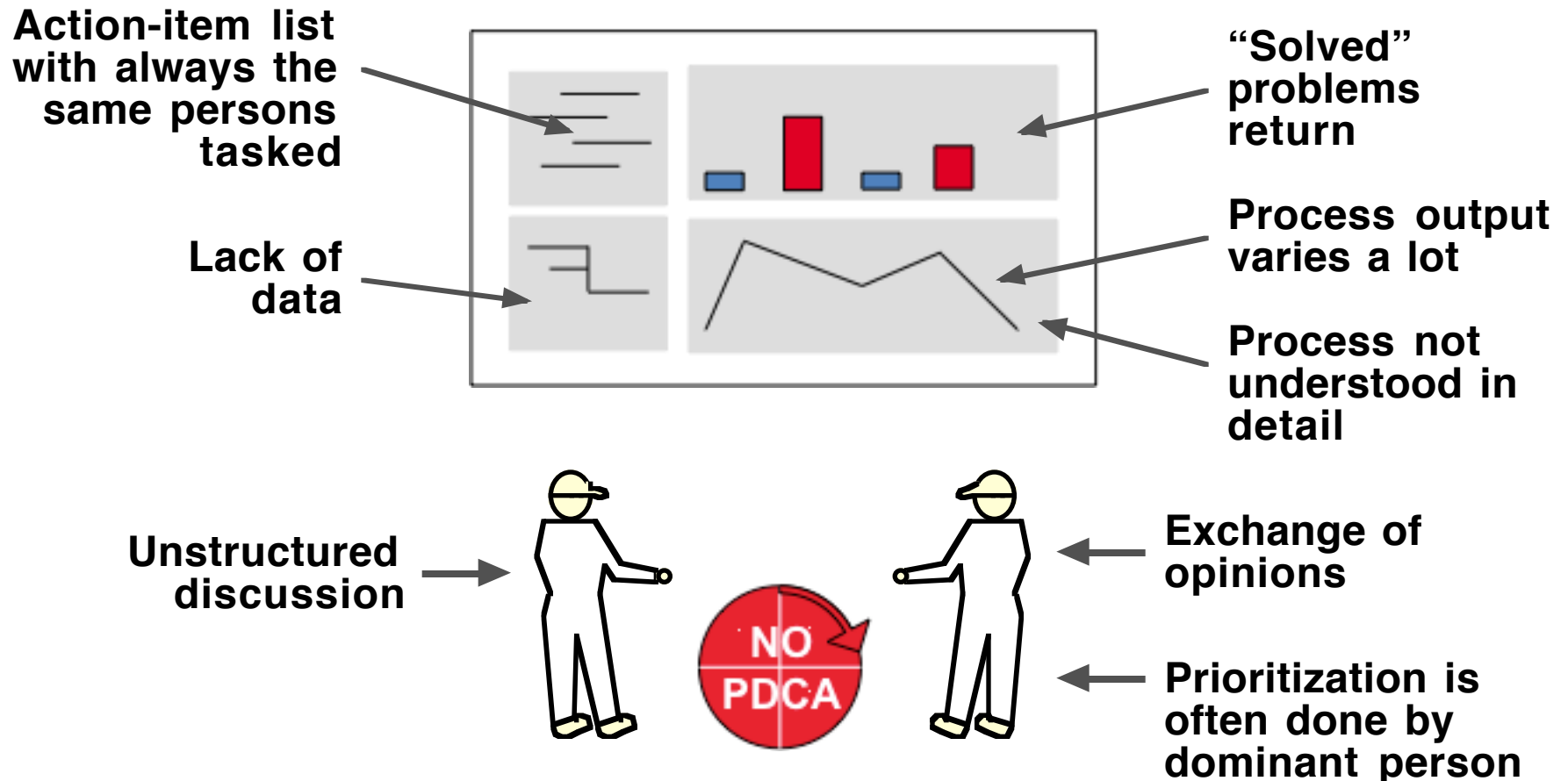
The team records and lists the types of breakdowns in a pareto chart, analyses the causes of the most common breakdowns and introduces countermeasures. The process seems to improve for a while, but many abnormalities return over time.

The team concludes the machine's 'personality' requires a certain 'knack' to keep it running. Maintenance personnel prides itself in being able to get the machine running again quickly.



TYPICAL SITUATION BASED ON TROUBLESHOOTING

Firefighting & little improvement. We often find this situation in daily tier meetings, for example.



Based on a diagram by Ralph Richter

SYSTEMATIC IMPROVEMENT - EXAMPLE

An automated machine has frequent breakdowns

The team responds to abnormalities as necessary, but also identifies and focuses on the following work processes that are associated with operating the machine:

- Machine tending (multiple machines)
- Changeovers
- Logistics (moving material in and out)
- Maintenance



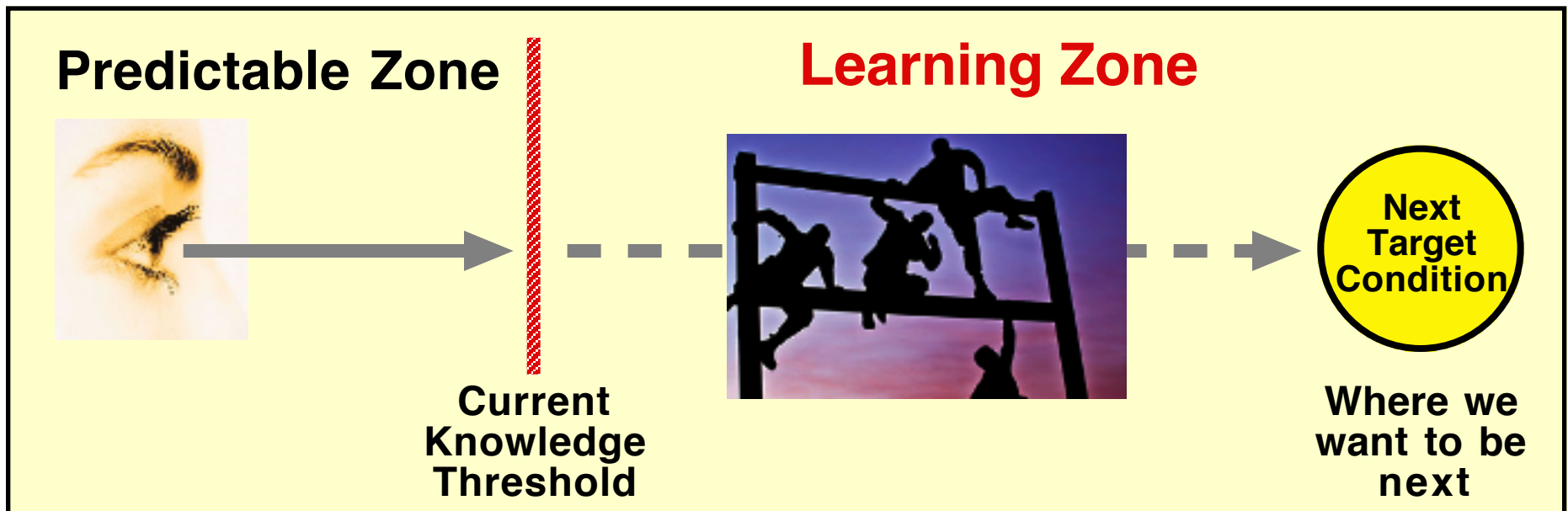
The team carefully observes each of these work processes to sketch, measure and understand their current pattern of working.

Based on their understanding of the current operating patterns the team develops a next desired operating pattern for each work process -- called a *target condition* -- to be reached in 30 days. The team predicts that bringing the work processes into these desired operating patterns will reduce the amount of machine breakdowns by 80%.

The team then works iteratively with PDCA to move toward the target conditions. The team learns as it strives to reach the target conditions and adapts based on what it's learning.

WHAT'S HAPPENING WITH THE SYSTEMATIC APPROACH?

The idea here is to systematically, scientifically navigate a learning zone to reach (strive toward) a new pattern of operation and level of performance



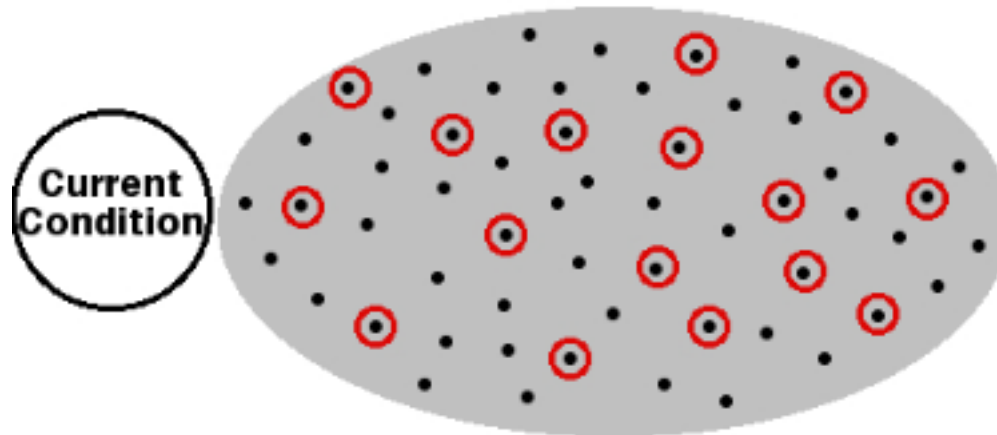
Unlike troubleshooting, this is typically a deliberately learned skill or habit

NOTICE THE DIFFERENT MINDSET

*What's my problem,
and how do I solve it?*



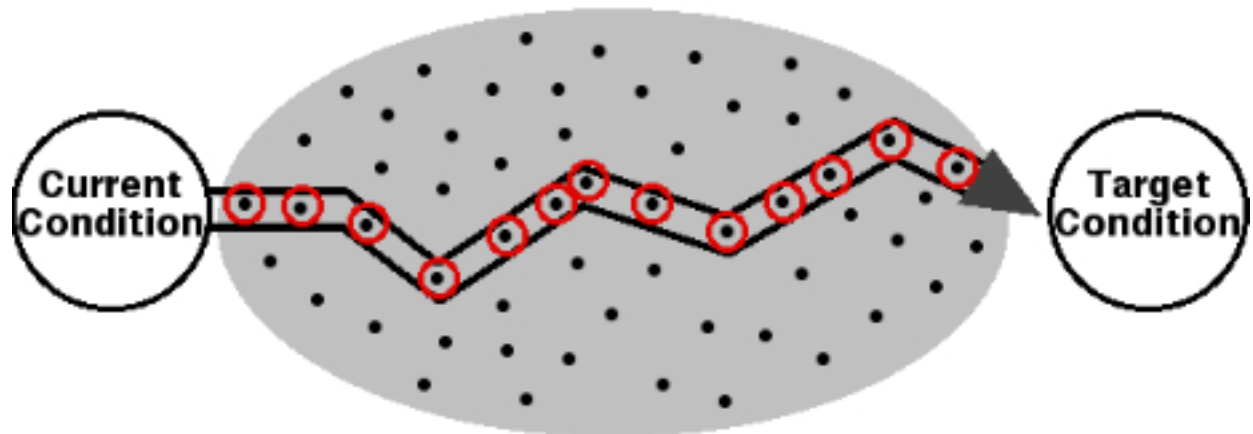
Reacting to abnormalities



*Where are we going next,
and how do we get there?*



Striving for a target pattern





**THE POINT WE'D
LIKE TO MAKE...**

***TROUBLESHOOTING IS NECESSARY, BUT IT'S
THE WRONG APPROACH FOR CONTINUOUS
IMPROVEMENT, ADAPTATION AND INNOVATION***



ONE WAY TO DEPICT IT?

Doesn't have to be a big leap

Next Target Condition / Standard



← Improvement

Current Standard

A standard can't be reached 100%

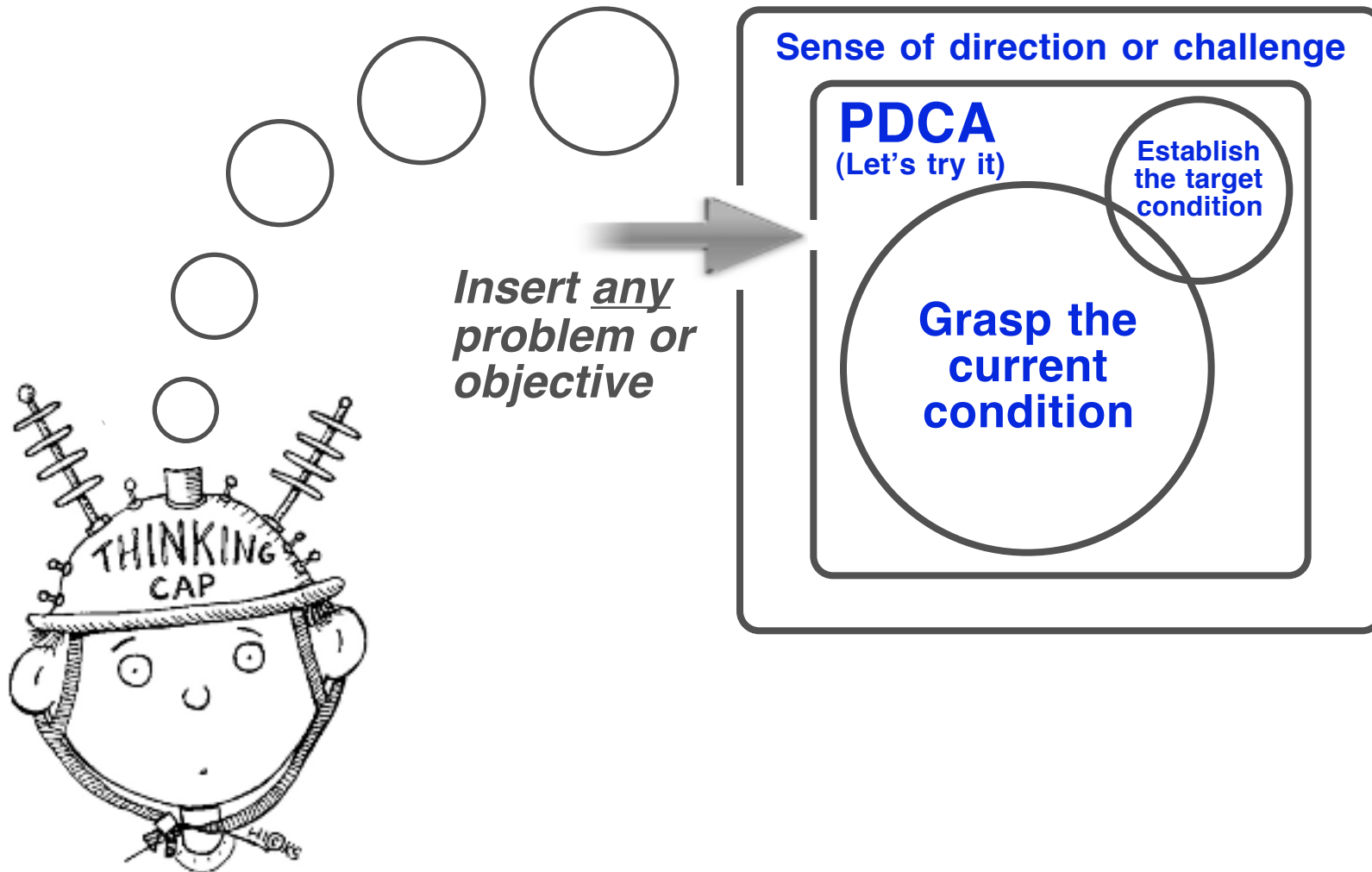
← Troubleshooting

Abnormalities (oscillating)

When we move from *Troubleshooting* into *Improvement* there's a shift in our pattern of thinking and acting, characterized by striving (focused aspiration) instead of just trying to avoid or get back to something.

HOW DOES AN EXPERIENCED IMPROVER THINK?

It's difficult to research, depict and convey this because in their mind it's become an integrated, non-linear, habit. They subconsciously work on all stages simultaneously.



PICK A GOOD IMPROVEMENT PATTERN TO PRACTICE

Because it could become your habit

We think a good improver's fundamental pattern of thinking stays basically the same regardless of what they're working on, big or small. They approach things a certain way.

This makes some sense, since neuroscience tells us we can't switch our subconscious habits easily or quickly.



As a beginner, practice on something small so you can focus on picking up the pattern you're trying to internalize. As your proficiency increases you'll apply the pattern to any issue.

IF YOU WANT TO GO BEYOND TROUBLESHOOTING

You'll need to deliberately practice
a different behavior pattern





MANAGER THINKING & BEHAVIOR IS IMPORTANT

Sometimes you hear a manager asking, *“What have you improved since we last met?”*

When managers make statements like this they teach and reinforce the mindset and behavior of random improvement and troubleshooting.

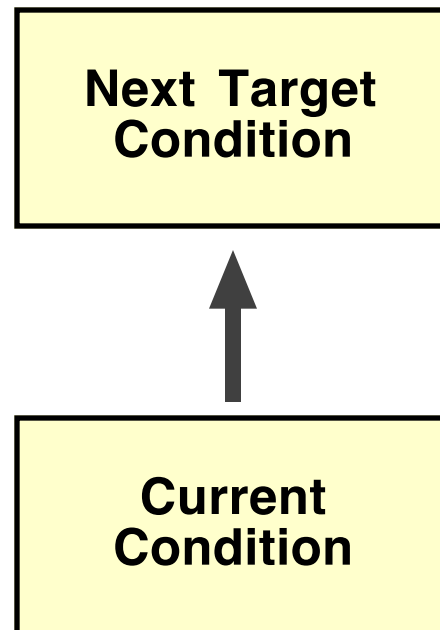
But improvement, adaptation and innovation involve purpose-oriented behavior, and managers can practice asking this more constructive series of 5 questions:

- *What are you trying to achieve?*
- *Where are you now?*
- *What’s currently in your way?*
- *What’s your next step, and what do you expect?*
- *When can we see what we’ve learned from that step?*

HERE'S ANOTHER THING WE CAN DO

Maybe we should stop referring to the gap between a current condition and a target condition as a “problem.” There are lots of problems/obstacles between here and there!

Calling the gap a problem too easily leads us to think of planning and implementing a batch of countermeasures, as opposed to working iteratively. We leap ahead with faith in our up-front analysis and plan, and fail to leave enough room for learning and adaptiveness.

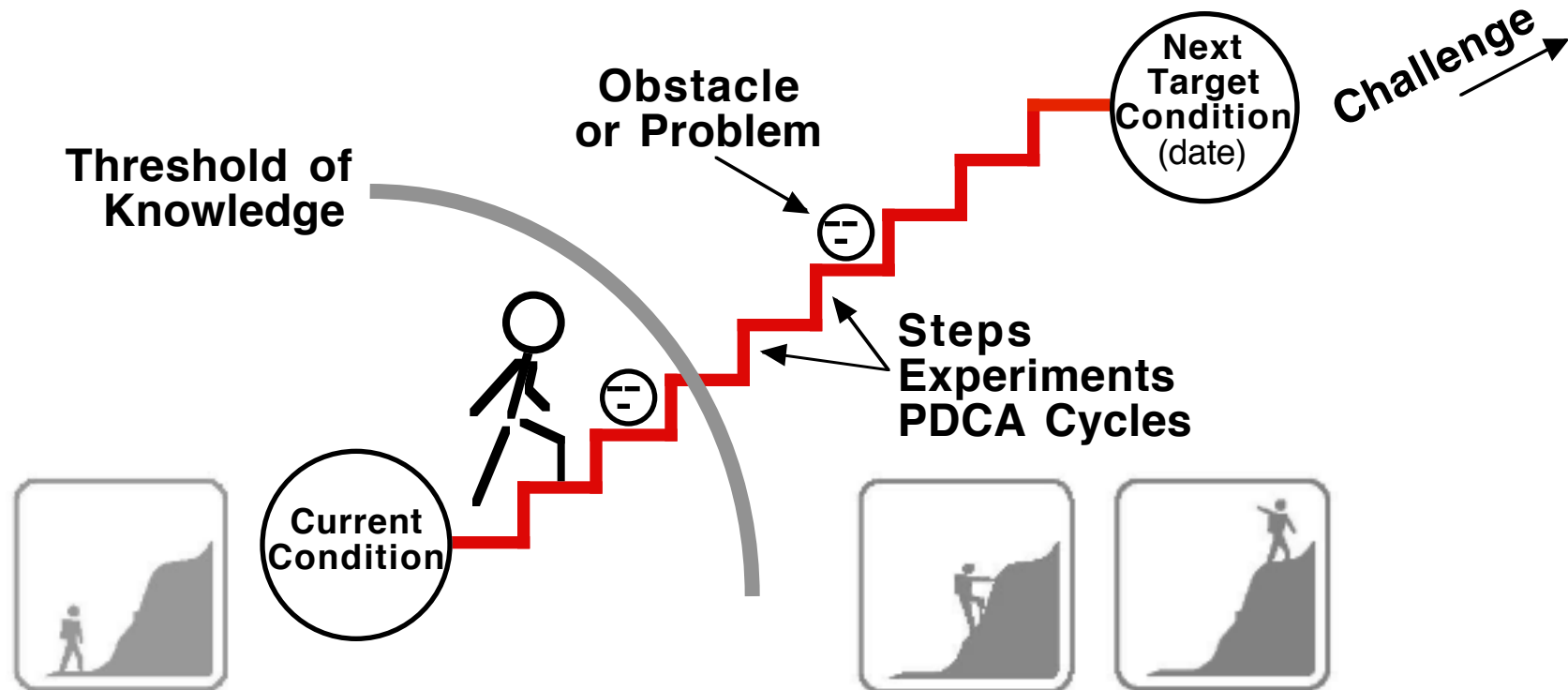


Gap = “~~Problem~~”

A less risky name for the gap might be “*theme*,” or asking, “*What are you working on?*”

PROPOSAL FOR STANDARD IMPROVEMENT TERMS

- ▶ A **target condition** is a new pattern you're striving to reach by a specified date, on the way to a larger overall **challenge**. A target condition lies outside your **threshold of knowledge**. You don't know exactly how you'll reach it.
- ▶ What you do to overcome an **obstacle** or **problem** on the way to the target condition are called **steps**, **experiments** or **PDCA cycles**. It almost always takes more than one step to break through an obstacle. When you overcome an obstacle it means you've developed a **solution** to a problem.
- ▶ **Ingenuity**, **adaptiveness** and **innovation** happen on the way; as you work step-by-step toward the target condition & act based on what you're learning.



FOCUSED ASPIRATION

What managers should think about, for their organization to achieve continuous improvement and sustained competitiveness

*What's this team's target condition?
How does it tie into an overall challenge?
By what means should the team be
working toward the target condition?*

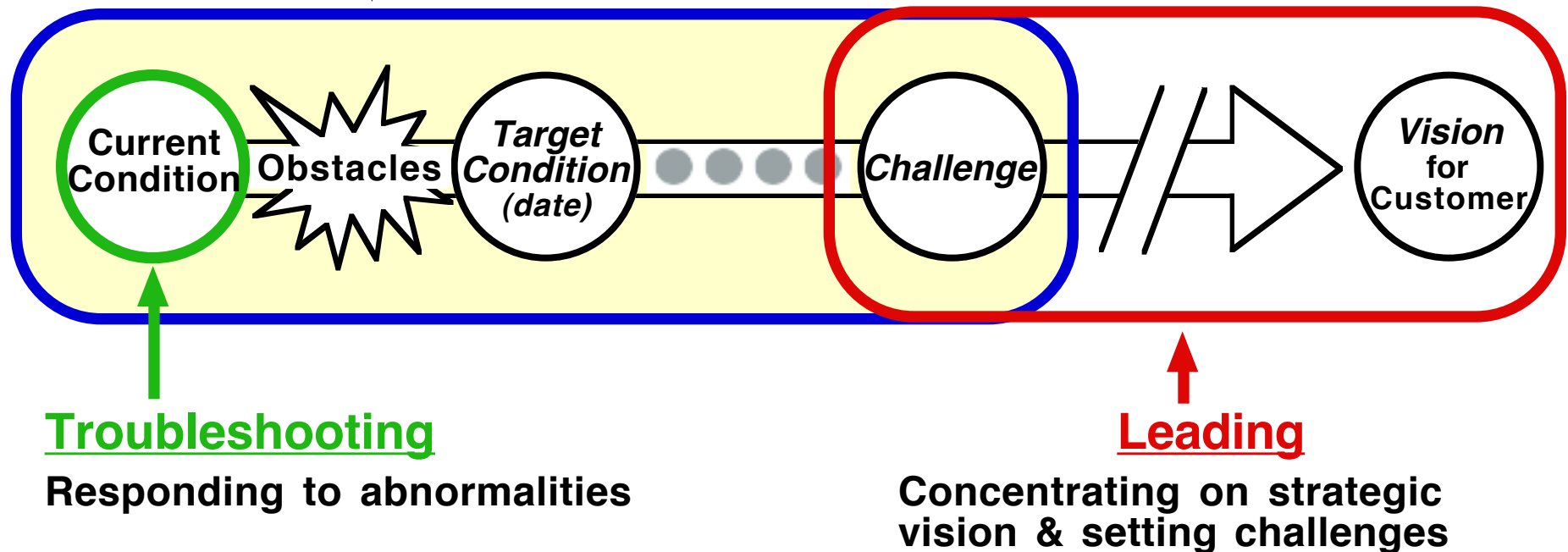


SYSTEMATIC IMPROVEMENT FILLS A SPACE BETWEEN TROUBLESHOOTING AND LEADERSHIP

And can be highly motivating

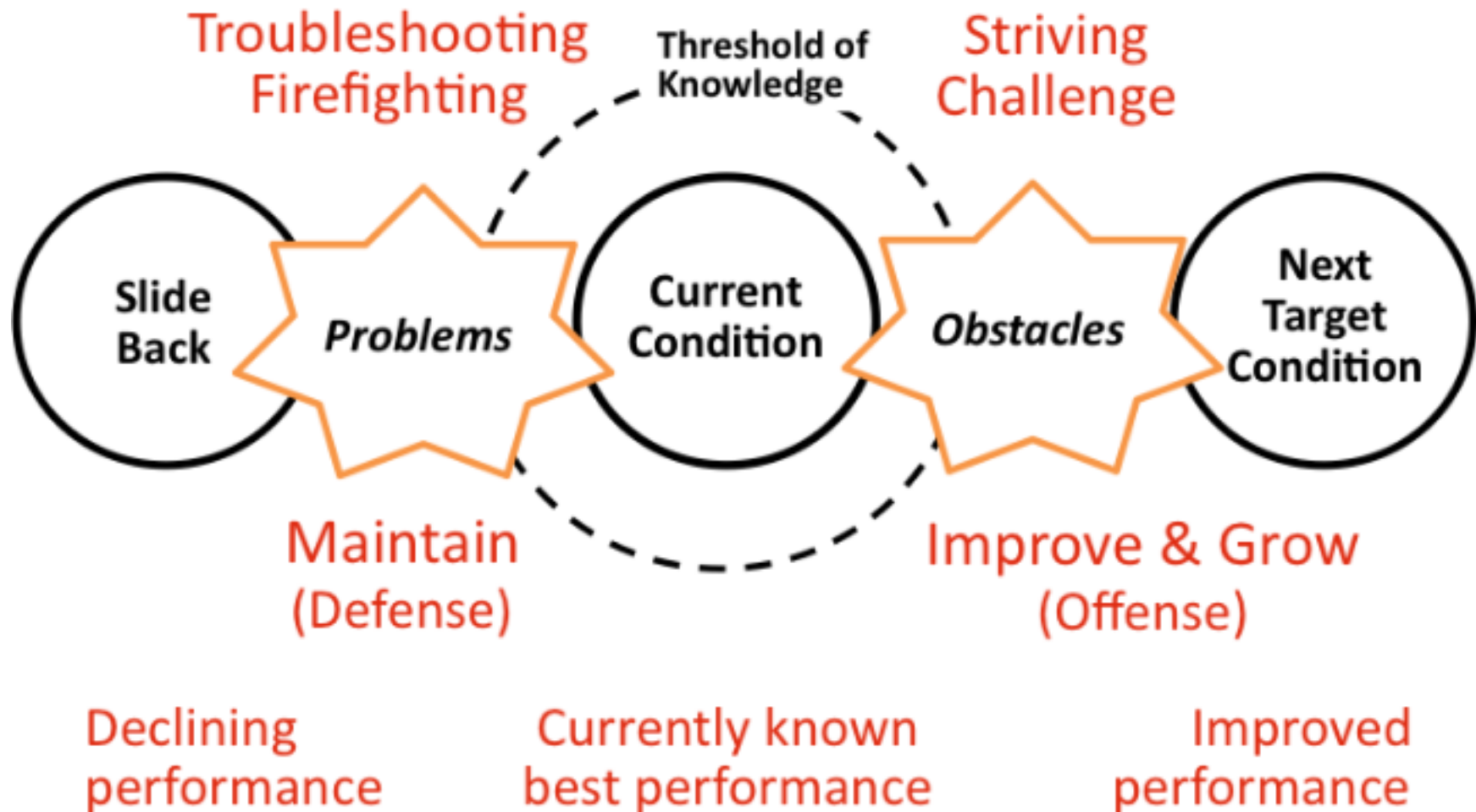
Systematic Improvement

↓
Daily striving to achieve a new target condition, through cycles of experimentation



ALTERNATE DEPICTION

by Emiel van Est





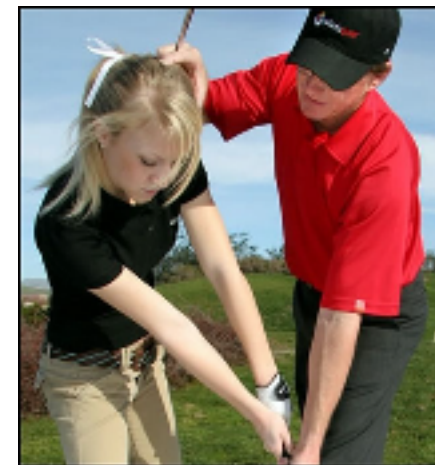
A MESSAGE OF REFORM



**The more competitive the environment,
the more your organization may need
entrepreneurial thinking and acting**

A community of more effective Lean and managerial practice is growing, based on teaching & practicing the Improvement Kata in daily work. Alignment of actions across the organization increases when people work on the things that *need* to be done in service of a challenge and target conditions. This is a change from the approach to improvement whereby organizations just react to problems or address all the things they *can* improve in the pursuit of general waste elimination.

***What habits are the managers
in your organization teaching?***



WE'D LIKE TO THANK...

✦ Bret Bakensztos

✦ Pat Boutier

✦ Beth Carrington

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✦ Emiel van Est

✦ Rick Fleming

✦ Bob Hemrick

✦ Craig Kennedy

✦ Drew Locher

✦ Michele McLaughlin

✦ Ralph Richter

✦ Mark Rosenthal

✦ Meryl Runion-Rose

✦ Jason Schulist

✦ Jeff Uitenbroek

✦ Ralph Winkler

But Walt...
**THERE'S
MORE!**



...for their thoughtful and insightful
input to this SlideShare

Another Way to Look at It

Counterpoint by Meryl Runion-Rose

added August 1, 2012

To my eye and ear, the title and focus of this SlideShare negates existing practice, and we'd be better off building on it.

Following is what I see as the gold or key points in the SlideShare with some tweaks. My focus is: instead of stopping what you've been doing, take what you've been doing to the next level.

Meryl Runion Rose

The ~~Wrong~~ Starter Kata as a step toward the Maha-Kata*

How to flip random improvement
efforts into focused aspirations

* Maha-Kata = the "*great pattern*"

Meryl Runion Rose

It's common success wisdom:

- Focus on what you want more than what you don't want.
- Then, strive toward that vision.

Example: "We want to collaborate freely. How can we move our discussion forward in that direction?"

- If you don't know what you want, as a starter kata, first, define what you don't want. Then, flip that to create your vision.

Example: "We don't want to worry about credit when we share ideas. Instead, we want to collaborate freely. How shall we move our discussions forward in that direction?"

- Then, strive toward that vision

Meryl Runion Rose

It's common Lean practice:

- To strive to eliminate what you don't want.
- That conflates a process step (identifying the problem) with the goal (identifying the target)
- That's bad form, or a misdirected kata practice

Meryl Runion Rose

The “wrong” kata uses the push of problems

The Maha-Kata uses the pull of perfection

- Add striving to attain a higher state, to the trouble-shooting approach
- That transforms the problem-solving process into a creative striving process
- Some steps **may** look the same, but are now a part of a bigger picture
- The Starter Kata takes you from the “wrong” kata to the Maha-kata. It looks like this:

“Let’s not just aim to get back to “normalcy”. Let’s use this abnormality to move us to a higher state. We know what we don’t want. What do we want?”

Meryl Runion Rose

The Maha-Kata focuses improvement efforts

Mis-directed kata questions:

- *What have you fixed since we last met? →*
- *What have you improved since we last met? →*

Starter kata-transformation questions:

- *What are we striving toward?*
- *How can we flip problems into aspirations?*

Maha-kata question:

- *How will we inquire our way toward our aspirations?*

Meryl Runion Rose

The Maha-kata gives a worthwhile focus to improvement efforts

The Five Questions:

- What are you trying to achieve?
- Where are you now?
- What's currently in your way?
- What's your next step, and what do you expect?
- When can we see what we've learned from that step?

Meryl Runion Rose

Before you climb your ladder make sure it's up against the right wall

- Aim your effort toward what you aspire to create instead of what you desire to eliminate
- And enjoy the pull of perfection over the push of problems!



Meryl Runion Rose

An Additional Counterpoint

By a reader of this SlideShare
added August 2, 2012

I was taught a while ago about humans and interaction and the concept of 'judging vs. joining'. Judging (what we typically do), is listening to an argument and then leading with what we disagree with or don't like about the argument. Joining, is listening to the argument, then trying to build off it.

I was trying to reflect on the title of this SlideShare and why it evoked the judging reaction. What I came up with was there is nothing wrong with the troubleshooting kata it's just a "Necessary but insufficient for continuous improvement" kata. You still need it, it's just not going to get you 'continuous improvement' by itself.

What if the message could be recast as "the troubleshooting kata by itself is not sufficient." You need both but the ratio of effort by which you do them has to change over time towards continuous improvement. The way you achieve this is by emphasizing the Improvement Kata deliberately and resorting to troubleshooting only as needed. Do this for long enough and the need for the troubleshooting kata should decrease significantly.