

THE IMPROVEMENT KATA

- A WAY OF DEVELOPING SCIENTIFIC THINKING TO CREATE AN AGILE MINDSET

By Oscar Roche, TWI Institute

“You know, we often lead change through projects in our organization but about 10% of the change is technology based, the rest is people based.”

Bill Robertson - IT Director, De Bortoli Wines Australia, June 2018

Bill says it's 90% about people, but here's a problem. Most of our programs and methodology are 90% about the tools. Even agile development, which is philosophically a different way of thinking about creating software, gets reduced to post-it notes on a wall and daily scrum meetings.

Each of us has a mindset through which we see the world, our perceptions. Some of us will see the old lady (facing us), some of us the young lady (facing away), but we are all looking at the same picture.



Figure 1: What do you see? What do others on your team see?

Our mindset makes us pay attention to certain things and ignore others. It influences how we interpret what we see and hear. That is why there is often a difference between what is actually said and what the listener hears – this being the root cause of many a conflict and many software projects gone awry!

Mindset can support Agile behaviors or can hinder them. Any complex software project involves multiple people or groups working on different parts of the puzzle. How they understand customer needs and how they collaborate to create a cohesive whole can greatly influence the success of the project. Agile thinkers are aware that their own perceptions are shaping their view and that they must be wary of believing everything they think. Agile thinkers tolerate some ambiguity. To navigate that ambiguity they experiment, they continually test their views created by their perception. And from those experiments they find the way forward adapting as needs be. This is quite different from just following pre-defined actions in a project plan.

So of course the answer seems to be to teach people a better way of thinking and working. Tell them the better way and ask them to follow the methodology . . . easy.

Unfortunately, hoping to create new behaviours by explaining or trying to convince people doesn't really work. The explanation may be correct, but it doesn't change our habitual ways of thinking that have built up over the years.

One answer that has arisen in recent years is deliberate practice of the so-called Improvement Kata (*Mike Rother, 2009*). The core concept is to learn a new way of thinking via practice with corrective feedback. This is a means of applying a greater scientific-thinking discipline to question, then validate or otherwise, our perceptions, our preconceived mindset. It is a means toward behaving in an agile manner.

The Improvement Kata is a four-step pattern of deliberate practice that, as a whole, parallels scientific thinking:

Step 1 Sets a direction by defining a challenge or goal.

Step 2 Requires getting an understanding of the current situation. Where are we now?

Step 3 Establishes a next state – the next 'target condition' – that is achievable soon, on the way to the bigger challenge. (Now a gap is clear.)

Step 4 Uses rapid experimentation to navigate toward the target condition.

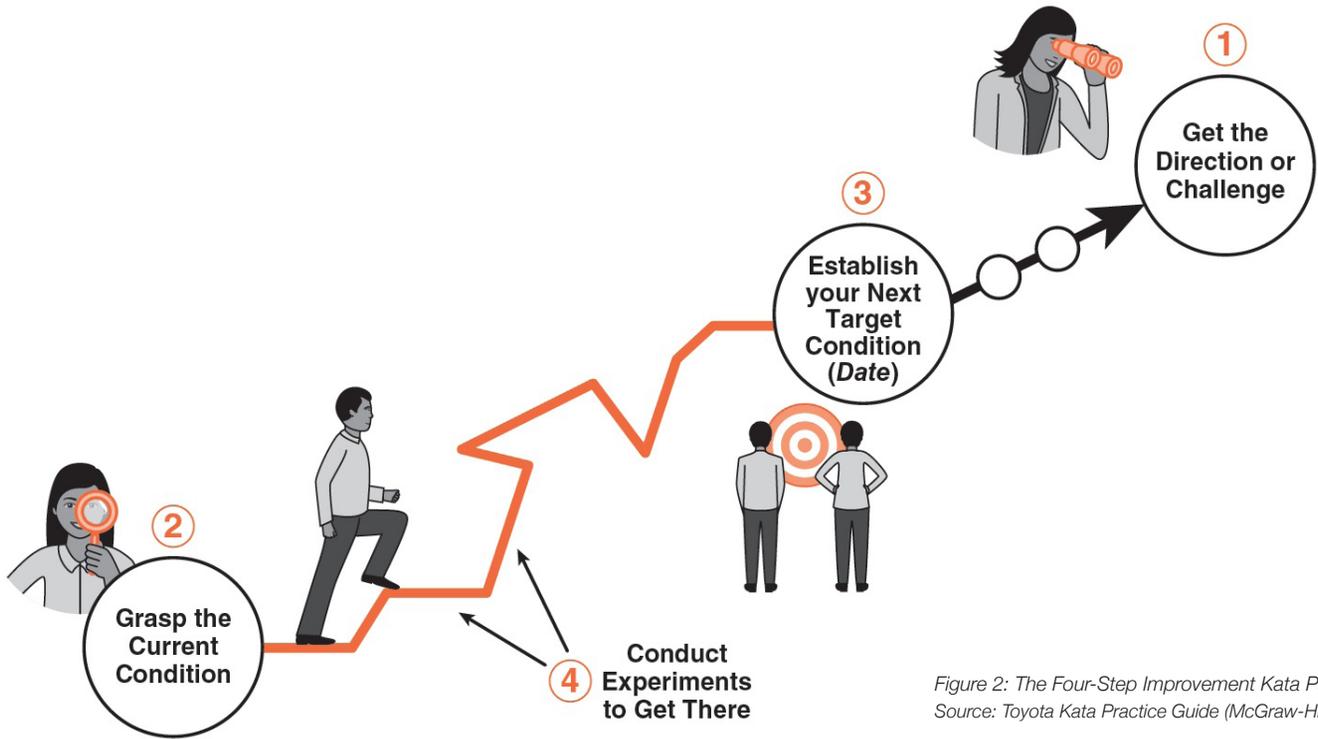


Figure 2: The Four-Step Improvement Kata Pattern
Source: Toyota Kata Practice Guide (McGraw-Hill, 2018)

We know it's not easy to adopt a new way. That's why there is also the Coaching Kata to practice - a questioning pattern that helps anyone develop greater scientific thinking.

1. What's our target condition (the in between state)?
2. What's the actual condition now?
 - Now reflect ... What did we learn from our last experiment?
3. What obstacles are stopping us from reaching our target condition, which one will we work on?
4. What's our next experiment?
5. How quickly can we see what we've learned from that?

Practicing the Improvement Kata keeps us focused on where we need to be but doesn't engineer a project plan approach. Why? Because within the fourth step of the Improvement Kata we don't prescribe step by step how we think we can get there. We acknowledge there is a grey zone between where we are now and where we need to be.



Figure 3: The grey zone

The Improvement and Coaching Kata patterns give you a way to develop the 90% that Bill Robertson was referring to, and achieve whatever you want.

What a perfect fit for the dynamic, unpredictable conditions of the early 21st century.



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