

# Improvement Kata – 4 Steps To Operations Performance Improvement

## BRIEF

*Improvement Kata challenges traditional improvement thinking ... “no plan will cover everything, and that is OK”! We wrote this in and introductory Improvement Kata article, and it is TRUE. However, it does not mean you progress forward “unarmed”. To do that would be a disaster. No, you progress forward armed with the 4 Steps of Improvement Kata.*

## AN OVERVIEW OF THE 4 STEPS

The 4 Steps of the Improvement Kata are:

**Step 1** - Understand the direction.

**Step 2** - Grasp the Current Condition.

**Step 3** - Establish the next Target Condition.

**Step 4** - PDCA toward the Target Condition.

Remember (from the introductory article) the whole point here is DO NOT address obstacles (process waste) that are not blocking your path to your Target Condition. That in itself is wasted effort, effort that make no difference to your key performance drivers. PDCA is the tool used to get you from what you HAVE to what you WANT. What you WANT is aligned to the basic key performance drivers of any operation – quality, productivity and safety.

Before we expand on the 4 steps, we need to define “Kata”. Kata is a Japanese word meaning “way of doing”. A kata is a pattern you practice to learn a skill. Through practice, the pattern of a kata becomes second nature. Little concentration is needed, it comes easily. Good examples are riding a motorbike, and swimming. People who have learned the skill of riding a motorbike don’t think much about the controls, they focus on following the road.

A kata doesn’t last as it starts. Once you master the skill, i.e. you have learnt, you no longer closely follow the kata – the pattern that you used to learn that skill. In other words, it is the resulting capability and habit that counts, not the kata. The Improvement Kata is Toyota’s fundamental pattern for learning to improve, adapt and innovate. In other words, given how we just defined “Kata”, Toyota aims to establish this improvement skill within their employee’s minds so strongly that they do it without thinking about it. Imagine that!

We will now have a closer look at each of the 4 Steps.

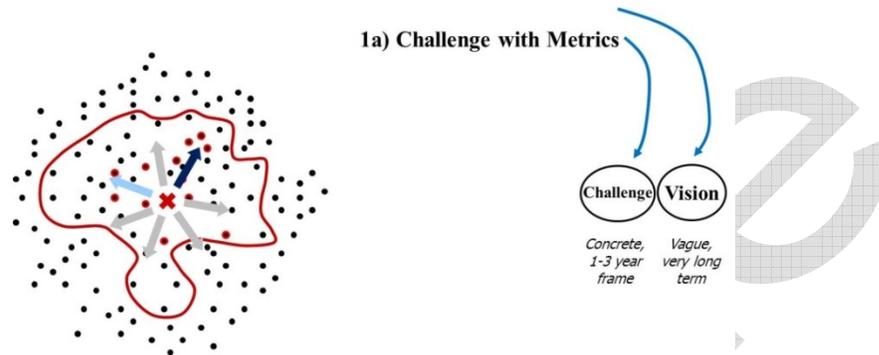
## STEP 1 – UNDERSTAND THE DIRECTION

We must understand where we are headed as a business long term – we must have a vision. There are 2 levels of “Vision”. The very very distant one, the one your board may be setting for the company. That is not the Vision we will consider. We will focus on the 1-3 years out Vision, maybe better named as the “Challenge”. This 1-3 years out Challenge is likely to take a series of Target Conditions to achieve, not just one or two.

Let's now focus on the 1-3 year Challenge.

To ensure that process-level improvement efforts have a focus and are aligned, a Challenge is:

- At the factory floor or service level.
- Tied to company objectives and directed at the customer.
- Achievable, but we don't know in advance how we will achieve it.
- Not easy, but not impossible.



For example, we may set a challenge for improvement of machine service (preventative maintenance):

- Decrease downtime 30%.
- Decrease labour cost 25%.
- Efficiency > before shutdown.
- All 3 by 31 October 2013.

You can see that the challenge is measurable and has a clear expectation of "by when".

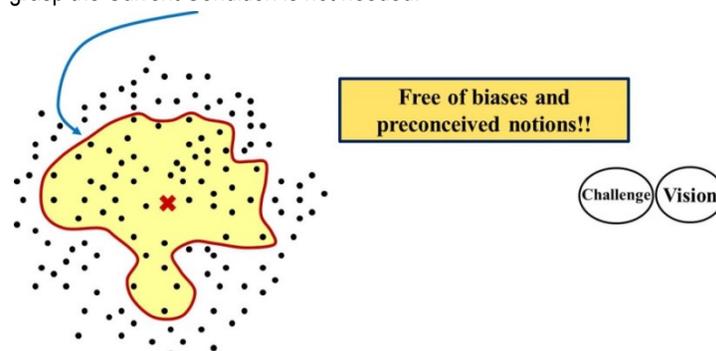
### STEP 2 – GRASP THE CURRENT CONDITION

We must understand where we are now, what we HAVE. Why do we need to know the Current Condition? Because understanding the Current Condition is a step toward establishing the first Target Condition. Once you understand the first Target Condition ...

Then ... you have something to strive for which will reveal obstacles. Now you have something to work on, THE OBSTACLES.

Understanding where we are now, what we have, involves a study of the process now. This is not necessarily a lengthy exercise. It usually involves obtaining data, but doesn't have to.

Understanding where we are now involves observing and noting *what is actually happening*. Notes, photos, videos etc. should be taken to confirm fact, but again, it is not an elaborate report. In very large projects, it may involve doing a Value Stream Map. In our experience thus far, going to this length to grasp the Current Condition is not needed.



Please note these 2 BIG cautions.

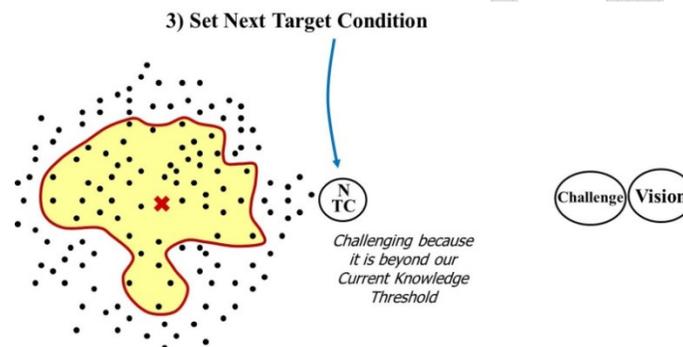
Firstly, you don't study the Current Condition in order to uncover problems, wastes or potential improvements and then to start working on them. Don't be caught by this, many are.

The second caution is you don't need a perfect understanding of everything about the process. You just need to understand enough to get going, to establish the first Target Condition. The learning and understanding comes after you get going, when you strike the obstacles.

### STEP 3 – ESTABLISH THE NEXT TARGET CONDITION

Setting Target Conditions is a key point in Improvement Kata. It is the role of the manager to do so. Well constructed clearly define Target Conditions lay the foundation for success.

A Target Condition describes what we WANT, with a specified “reach by date” usually between 1 week and 3 months out. A Target Condition lies beyond your current knowledge limit. In other words, you don't know for sure how you will achieve it. But you will get started, you will find the obstacles and you will remove them, on your way to the Target Condition.



A Target Condition is forward-looking, what we WANT, rather than a backward reflection of what is wrong. A 1-3 years Challenge is likely to take a series of Target Conditions to achieve, not just one or two.

The individual Target Conditions are reachable and meaningful to those working on them. Sometimes the problem with a 1-3 year Challenge is it is difficult to be engaged by something that is too far away, maybe even appears not to have a purpose.

Once you've got used to working with Target Conditions, and you understand their role, you'll find it hard to work without one. You'll find it hard to work without first specifying what you will achieve next.

The characteristics of a Target Condition, some of which we've already mentioned, are:

- Relates to a process, describes what we WANT.
- A step toward the Challenge.
- Defined in more detail than the Challenge.
- Takes you beyond your “Knowledge Limit”.
- Is not “too easy, too comfortable”.
- Is very “measurable” – “achieved or not?” is very clear.
- Includes a “by when” date, normally 1 week to 3 months.

Complexity of the Target Conditions and the “by when” date is important as you learn Improvement Kata. At the start, complexity is kept down and by when dates short, a week or two. This helps narrow initial focus. As people's skill in Improvement Kata improves, complexity can be increased and “by when” dates lengthened.

The purpose of a Target Condition is to direct you to the obstacles / problems you NEED to work on. How does it do this?

A Target Condition sets a pathway that will reveal obstacles or problems that you must remove in order to achieve the Target Condition. You work on the obstacles / problems one at a time. There may well be many other things you see you will not work on. Why? Because they are not obstacles preventing you getting to your Target Condition. If you don't work in this fashion you are back to random improvement and random learning. Another phrase for this is "recreational improvement". You might remove problems, but it probably won't get you anywhere.

Don't change a Target Condition once it has been correctly identified. You might add a little extra detail, but don't detract from it.

After establishing and reaching your first Target Condition, there are 2 things that vary in establishing subsequent Target Conditions. You will have learnt something from reaching the one prior. Your Knowledge Limit may well be different. This may well influence the details in your next Target Condition. Your new Current Condition becomes your preceding Target Condition. This will also influence your next Target Condition, but again, mostly by what you have learnt thus far. Note though, the purpose of the Target Condition and process for establishing it are always the same.

### STEP 4 – PDCA TOWARD THE TARGET CONDITION

Steps 1, 2 and 3 are planning. Step 4 is when you start doing something, you apply Edward Deming's PDCA (Plan, Do, Check, Adjust [formerly Act]) cycle.

The P in PDCA stands for Plan. As the name would suggest, this is where you define ... What you will do, what you think will happen.

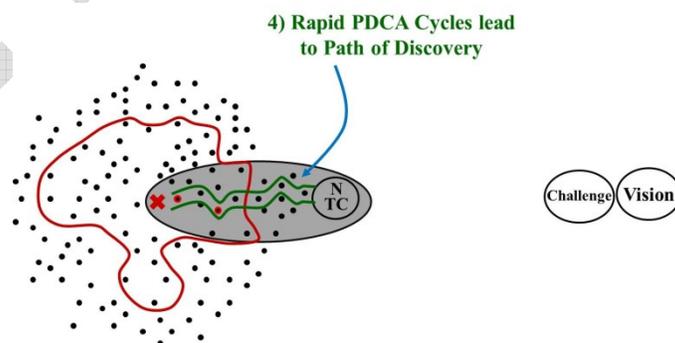
The D in PDCA stands for Do. As the name would suggest, this is where you ... Do what you planned, WATCH CLOSELY.

The C in PDCA stands for Check. This is where you ... Compare what happened with that expected. The key point here is that Check is a comparison between actual and expected.

The A in PDCA stands for Adjust. It originally stood for "Act". This is where ... Given WHAT YOU JUST LEARNT, what will you do next? The key point here is that you may well change direction a little, or a lot. This change is NOT RANDOM; it is based on WHAT YOU LEARNT DURING THE "DO" AND "CHECK".

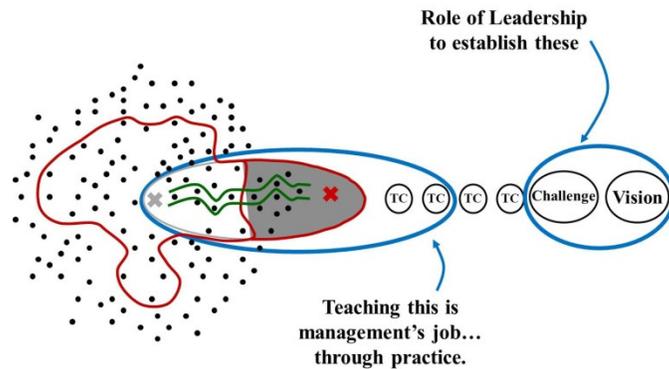
PDCA is:

- A scientific way of gaining knowledge.
- A practical way of getting to a Target Condition.
- The way to get through the "Grey Zone", the area past your Knowledge Limit.



## SUMMARY

The diagram below thus summarises the application of Improvement Kata.



**Step 1** - Understand the direction. This is something done by the executive. Without this, genuine continuous improvement is impossible.

**Step 2** - Grasp the Current Condition. The purpose of this is to understand the situation enough to set the first Target Condition.

**Step 3** - Establish the first (and subsequent) Target Condition(s). This enables you to get started in a direction that is consistent with the Challenge.

**Step 4** - PDCA toward the Target Condition ... your method for getting through the "Grey Zone".

Source for information: *Mike Rother and Bill Costantino*

Visual Workplace Australasia's work with clients is underpinned by Improvement Kata. Visual Workplace Australasia thanks Mike Rother (author of "Toyota Kata") and Bill Costantino for their extensive work in detailing the essence of Improvement Kata. Visual Workplace Australasia has developed skills in this method and thank Mike and Bill for that.