Improvement Kata Kata

Practice Kit
A step-by-step guide for beginning to practice the Improvement Kata & Coaching Kata patterns

By Mike Rother
Prepared for the 2015 Kata Summit

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Background
THIS KIT GIVES YOU AN EASY WAY TO START PRACTICING SCIENTIFIC THINKING

Scientific thinking is a basis for:

- Successfully pursuing seemingly unattainable goals in complex systems
- Enabling teams to make decisions close to the action and maneuver effectively

The Improvement Kata & Coaching Kata make scientific thinking a skill anyone can learn, by combining a 4-Step scientific pattern + simple, structured routines for practicing the pattern. The purpose of this kit is to develop practical skill.
WHAT IS SCIENTIFIC THINKING?

Scientific thinking is a routine of intentional coordination between what we think will happen (theory), what actually happens (evidence), and learning from the difference.

This is a good way to navigate the unclear territory between any challenging goal and where you stand today.
WHAT ARE KATA?

They're practice routines. Kata are structured routines to practice deliberately, especially at the beginning, so their pattern becomes a habit and leaves you with new abilities. Kata are for learning fundamentals that you can build on.

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

Science + Kata = Problem Solving Skill

Combining a scientific pattern with structured practice routines (Kata) develops effective problem solvers.
KATA PRACTICE GETS MORE FLEXIBLE AS YOU GET MORE SKILLFUL

Stages of Kata Practice:

(1) **FOLLOW**: (This Kit) Start by repeating each practice routine without modification, so you can absorb its fundamental pattern. This can take 1-2 months. Concentrate on how to do the task without worrying too much about the underlying theory.

(2) **DETACH**: Once you've internalized the basic patterns you can branch out. As the patterns get absorbed into "muscle memory" and you understand the 'why' behind them, you can start to adapt.

(3) **FLUENCY**: At this stage your actions become natural. You don't have to think consciously about basics anymore, which makes you smoother, quicker and frees brain capacity for handling situational inputs. At this stage you'll create your own approaches and readily adapt what you've learned to individual circumstances, while sticking to basic principles.

(Real life doesn't pass through such discrete stages, but they are a useful way to depict the progression.)
THE FOUR STEPS OF THE IMPROVEMENT KATA MODEL

The Improvement Kata is a teachable model of a scientific way of thinking & acting

1. Understand the Direction or Challenge
2. Grasp the Current Condition
3. Establish the Next Target Condition
4. Iterate Toward the Target Condition

Planning Phase
Executing Phase

Note that there is a "Planning Phase" and an "Executing Phase"
WHAT THE STEPS LOOK LIKE IN PRACTICE

Experimenting your way forward, instead of trying to decide your way forward

1. Challenge
2. Current Condition
3. Next Target Condition (date)
4. Experiments At the current Knowledge Threshold

Threshold of Knowledge
THE IMPROVEMENT KATA MODEL

Current Condition → Obstacles → Next Target Condition → Challenge → Vision
THE STEPS BUILD ON ONE ANOTHER

Each step of the Improvement Kata pattern operates within the context of the previous step. This 'framing' effect is an important part of effective problem solving.
INSTRUCTIONS

Use this Kit to begin developing foundational scientific thinking, through practice on a work process that's real and meaningful to the Learner. The following pages walk you through each step of applying the Improvement Kata to such a focus process in an initially simple way.

Begin by doing the steps presented here as described. Try to follow the practice instructions exactly; to go through the routines in a deliberately precise way. It may feel wrong or unnatural, but resist the temptation to skip over steps, rush it or change it at this time.

Do not move on to the next step until you have completed the previous step. However, it's fine (and recommended) to go back and correct or update an earlier step based on what you learn in a subsequent step.

A good way to practice is to set aside ~ one hour for it at the same time every day.

It's OK if it takes several days to complete a step, as long as you do a Coaching Cycle every day. At this point accuracy is more important than speed. Later when the patterns become more habitual they get faster, smoother and easier. Think of your initial practice as going slow to get fast.
THIS KIT EMPHASIZES USING RUN CHARTS

A run chart is a graph of data plotted over time. Because run charts are easy to construct and interpret, they are a good tool to help grasp the Current Condition and establish a Target Condition when you begin to practice the Improvement Kata pattern. Yet they are also a tool used by experienced Kata practitioners!
THE STEPS IN THIS KIT
There are instructions for each step

Step 1: Pair up (Learner & Coach) to do daily Coaching Cycles
Step 2: Print one storyboard poster for each Learner
Step 3: Define your Challenge
Step 4: Select a focus process
Step 5: Grasp the Current Condition
Step 6: Establish the Next Target Condition
Step 7: Iterate toward the Target Condition

The above steps in red are the 4 steps of the Improvement Kata pattern
Practice Instructions
**STEP 1: PAIR UP FOR DAILY COACHING CYCLES**

As in sports and music, your practicing should be done with observation and feedback by a Coach. So there will be two of you... one person is the *Learner* who goes through the steps presented here, and the other person is the *Coach* who observes and provides input.

A good way to do this is to select two focus processes in Step 4, so that each of you has the chance to be both Learner and Coach. You'll be rotating the two roles and coaching each other.

Select two persons (yourself and someone else) and add your names to the first two columns in the table below. You can also practice with three persons if you like, by selecting three focus processes in Step 4 and having two Coaches for each Learner in rotation.

<table>
<thead>
<tr>
<th>LEARNER</th>
<th>COACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>you</td>
<td>2\textsuperscript{nd} person</td>
</tr>
<tr>
<td>2\textsuperscript{nd} person</td>
<td>you</td>
</tr>
</tbody>
</table>

* Most likely no one is at a Coaching skill level at this point, but that's OK for now. It's important to have another person observe and give feedback you as you practice.
COACHING CYCLES ARE BASED ON THE FIVE COACHING KATA QUESTIONS

One coaching cycle involves the Coach asking the 5 Coaching Kata Questions of the Learner at least once daily, at the Learner's storyboard. This normally takes 5-20 minutes.

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

Coaching cycles are designed to keep the Learner on a practice path of scientific thinking, by providing procedural guidance as the Learner applies the Improvement Kata pattern to a real situation.
The card is turned over to reflect on the Learner’s last step.
ASKING THE LEARNER THE 5 QUESTIONS

As the Learner goes through the four steps of the Improvement Kata, the Five Coaching Kata Questions stay the same. But the **Target Condition** changes.

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**Planning**

- **Understand the Direction**
  - The target condition is that my Learner knows the **CHALLENGE**

- **Grasp the Current Condition**
  - The target condition is that my Learner has grasped the **CURRENT CONDITION**

- **Establish the Next Target Condition**
  - The target condition is that my Learner has defined a **TARGET CONDITION**

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**Executing**

- **Iterate Toward the Target Condition**
  - The target condition is the **Target Condition**

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Note that a Coaching Cycle is about reflecting on the last step taken by the Learner, and looking ahead to the next one. It's not a forum for working on problems. That's done outside the coaching cycles.
Learner's Storyboard

Coach

5-Question Card

Run Charts

Obstacles Parking Lot

PDCA Cycles Records

-- A COACHING CYCLE --
**Download the Tools**

Use the link below to download a pdf file that includes the tools you'll need for this Kit and to conduct coaching cycles:

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

- Learner's Storyboard
- 5-Question Card
- PDCA Cycles Record
- Obstacles Parking Lot
STEP 2: PRINT AND POST ONE STORYBOARD POSTER FOR EACH LEARNER

Each Learner has a storyboard that contains the running story of the application of the Improvement Kata pattern to one focus process.

Use the exact storyboard format shown below (template is in the download on the previous page). Do not change it at this time.

Print the storyboard in poster size. FedEx Office & office-supply stores can usually print large posters in black & white at a reasonable price.

You'll be posting items from the following steps in the corresponding fields on the Storyboard.

<table>
<thead>
<tr>
<th>Focus Process:</th>
<th>Challenge:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Condition</td>
<td>Actual Condition Now</td>
</tr>
<tr>
<td>Achieve by:</td>
<td>PDCA Cycles Record</td>
</tr>
<tr>
<td>Obstacles Parking Lot</td>
<td></td>
</tr>
</tbody>
</table>
STEP 3: DEFINE YOUR CHALLENGE

The Improvement Kata pattern begins with an overall sense of direction, or *Challenge*.
YOU CAN GET THE CHALLENGE FROM YOUR FUTURE-STATE VALUE STREAM MAP

A Future-State Value Stream Map provides the necessary sense of direction and challenge for practicing the Improvement Kata pattern. A future-state Value Stream map is sometimes even called a Challenge Map.

Ask: **What capability do we want to have in our value stream, to make it better at serving customers?**
WHATEVER CHALLENGE YOU HAVE, WRITE IT AS A STATEMENT

Write this short statement in the space provided on the Learner’s storyboard

A challenge is a description of success 1-3 years in the future that people can rally around. A good challenge focuses our efforts and is often published as a compact, inspiring challenge statement.

<table>
<thead>
<tr>
<th>Example Challenge</th>
<th>Example Challenge Statement (Goes on the Learner’s Storyboard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build one customer kitchen at a time and put it right on the truck.</td>
<td>Build to truck, kitchen at a time</td>
</tr>
<tr>
<td>Have lab-test results done in 45 minutes, with no errors.</td>
<td>Know in 45</td>
</tr>
<tr>
<td>Assemble the day ordered, and ship the next day.</td>
<td>Same day, next day</td>
</tr>
</tbody>
</table>
STEP 4: SELECT A FOCUS PROCESS

Write the name of the Focus Process in the space provided on the Learner’s storyboard

Choose a work process that is relatively easy to understand and analyze. This way the Learner can concentrate on practicing the pattern of the Improvement Kata rather than getting overwhelmed by the work process itself.

The words “work process” refer to many kinds of activity: production, material handling, order-entry, lab procedures, handling customer returns, and so on.

Good processes for a beginner to practice on have a visible, repetitive and short-cycle work pattern. To find such a process you may have to go outside the Learner's own work area.

The Focus Process must be a human-centered work process, i.e., one that involves human activity. There can be automated equipment within the focus process, but a fully-automated process is not appropriate as a focus process for the Kata practice in this Kit.
STEP 5: GRASP THE CURRENT CONDITION AT THE FOCUS PROCESS
YOU'LL BE MAKING RUN CHARTS LIKE THIS ONE

A run chart is a graph that displays observed data in a time sequence and illustrates its variation over time. Run charts are a great way to gather and communicate current-state information.

Each point is the measured time taken for one full operator cycle

You can make a run chart for almost any work process, because there is a repeating a work cycle in nearly every process. It may be difficult to see that cycle at first, but it’s there because humans naturally operate in patterns.
TIME 20-30 EXIT CYCLES FOR EACH PERSON WORKING IN THE FOCUS PROCESS

- Select a single point in the person's work cycle.
- Start your stopwatch when the person gets to that point in the work cycle, and let the stopwatch run until the person returns to this point, no matter what takes place. You are timing full cycles, called "Exit Cycles."
- Do not discard any cycles. You want to see all the data.
- Record the full time for each cycle. Note the date.
- Remember... you’re trying to understand the how the process currently functions. You're timing the process, not the person.

Now plot the measured times for each person on graph paper as shown on the previous page. One run chart per person. This is a simple snapshot of the current condition of the focus process.
POST THESE RUN CHARTS IN THE "ACTUAL CONDITION NOW" FIELD OF THE STORYBOARD

You can add notes or any other current condition data, information or observations you think are important

<table>
<thead>
<tr>
<th>Focus Process:</th>
<th>Challenge:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Condition</td>
<td>Actual Condition Now</td>
</tr>
<tr>
<td>Achieve by:</td>
<td>H.D.C.A Cycles Record</td>
</tr>
<tr>
<td></td>
<td>Obstacles Parking Lot</td>
</tr>
</tbody>
</table>

**Post the Current Condition run charts here**
STEP 6: ESTABLISH THE NEXT TARGET CONDITION

A Target Condition is an interim goal on the way to the Challenge. It describes where you want to be next, but not how to get there.
SET A TARGET CONDITION WITH A DATE OF TWO (2) WEEKS FROM TODAY

Use the run chart you made for the person working in the process who is nearest to the output end of the process.

Draw a red line across that run chart to indicate the **output cycle time** you would like the process to have on the 2-week date. This simple Target Condition is sufficient for the purposes of this Practice Kit.
AND START THE OBSTACLES PARKING LOT

These are obstacles relative to the Target Condition

Once you have a Target Condition you'll begin to gain insight into some of the obstacles that are in your way. Ask yourself, "What is preventing us from reaching this Target Condition?"

Use the form you downloaded earlier to start a "Parking Lot" of obstacles. These are not observations about opportunities for improvement, but issues that specifically appear to be preventing you from reaching the Target Condition.

Obstacle Parking Lot

• ________________________
• ________________________
• ________________________
• ________________________
• ________________________
• ________________________
• ________________________
• ________________________
• ________________________
• ________________________
• ________________________

Do not turn the Parking Lot into an action-item list. It’s just a place to note and hold perceived obstacles, which you may or may not work on.

Other obstacles will probably be discovered and added to the parking lot along the way. The steps you actually take will be determined by your experiments in the next phase of the IK pattern.
POST THIS RUN CHART AND THE OBSTACLES PARKING LOT ON THE STORYBOARD

<table>
<thead>
<tr>
<th>Focus Process:</th>
<th>Challenge:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Condition</strong>&lt;br&gt;Achieve by:</td>
<td><strong>Actual Condition Now</strong>&lt;br&gt;PDCA Cycles Record</td>
</tr>
</tbody>
</table>

**Post the Target Condition run chart here**

**Obstacles Parking Lot**
THIS COMPLETES THE PLANNING PHASE OF THE IMPROVEMENT KATA

Understand the Direction or Challenge

Grasp the Current Condition

Establish the Next Target Condition

Iterate Toward the Target Condition

Planning Phase

Executing Phase

<table>
<thead>
<tr>
<th>Focus Process:</th>
<th>Challenge:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Condition Achieve by:</td>
<td>Actual Condition Now</td>
</tr>
<tr>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Obstacles Parking Lot</td>
<td>✔️</td>
</tr>
</tbody>
</table>
STEP 7: ITERATE TOWARD THE TARGET CONDITION

Now you can start experimenting against the obstacles that are between you and the Target Condition.
USE THESE TWO ROUTINES TOGETHER TO FOSTER SCIENTIFIC ITERATION

Now in the Executing Phase, the Five Coaching Kata Questions (Coach) and the PDCA Cycles Record (Learner) should be used together in the daily Coaching Cycles at the Learner's storyboard.

The PDCA Cycles Record is a tool for conducting series of experiments against an obstacle (one obstacle at a time).
TWO TOOLS & POWERFUL ROUTINES FOR ACHIEVING ANY TARGET CONDITION

The LEARNER uses this tool while conducting experiments against each obstacle.

PDCA CYCLES RECORD
(Each row = one experiment)

<table>
<thead>
<tr>
<th>Obstacle:</th>
<th>Process:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date, step &amp; metric:</td>
<td>What do you expect?</td>
</tr>
<tr>
<td>Learner:</td>
<td>Coach:</td>
</tr>
<tr>
<td>What happened:</td>
<td>What we learned</td>
</tr>
</tbody>
</table>

The COACH asks the 5 Questions in a coaching cycle dialog, before each step (experiment) the Learner takes.

1) What is the Target Condition?
2) What is the Actual Condition now?
3) What Obstacles do you think are preventing you from reaching the target condition? Which ones are you working on?
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?

The Five Questions

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

The Learner plans and reflects on his/her experiments by recording them in the PDCA CYCLES RECORD.
FIRST, PICK ONE OBSTACLE AND WRITE IT ON A PDCA CYCLES RECORD

Do your experiments against one obstacle at a time. Use an arrow on the Obstacles Parking Lot to indicate the obstacle that is currently being experimented against, and record this obstacle in the space provided on the PDCA Cycles Record.

You are free to select whatever obstacle you want. You don’t need to start with the biggest obstacle. In fact, for Improvement Kata beginners it’s often better to not tackle the biggest obstacle right away.

It doesn’t matter where you start because all the obstacles that you will need to work on will wait patiently until you hit them.
**PDCA CYCLES RECORD**  
(Each row = one experiment)

<table>
<thead>
<tr>
<th>Obstacle: Write the obstacle here</th>
<th>Process:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date, step &amp; metric</td>
<td>What do you expect?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This form is read left-to-right, one row at a time; each row = one experiment. Once you get started, the pattern of the form repeats with each experiment.
PDCA CYCLES RECORDS SHOULD BE POSTED ON THE LEARNER'S STORYBOARD

You can stack the PDCA Cycles Records up as the Learner progresses (newest on top), or file completed ones nearby.

<table>
<thead>
<tr>
<th>Target Condition</th>
<th>Actual Condition Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve by:</td>
<td></td>
</tr>
</tbody>
</table>

**Focus Process:**

<table>
<thead>
<tr>
<th>Obstacles Parking Lot</th>
</tr>
</thead>
</table>

**Challenge:**

**PDCA Cycles Record**

Post PDCA Cycles Records here
LAYOUT OF THE PDCA CYCLES RECORD

One obstacle per form*

Each row = one experiment against the current obstacle

Obstacle:

PDCA CYCLES RECORD (Each row = one experiment)

Process:

Learner: Coach:

Date, step & metric What do you expect? What happened What we learned

Last Experiment

Next Experiment

It usually takes a series of experiments in order to overcome an obstacle

* Whenever the Learner starts working on a new obstacle, s/he should start a new PDCA Cycles Record
THE BASIC PATTERN
For using the PDCA Cycles Record

(1) Plan the experiment & then do a Coaching Cycle with your Coach.
(2) Reflect on the outcome of the experiment by comparing the prediction with the actual results.
(3) Plan the next experiment based on what you learned.
THE PREDICTION SIDE & THE EVIDENCE SIDE

The prediction side (LEFT) is where you plan the next experiment and predict the outcome.

The evidence side (RIGHT) is where you record what actually happened, compare that with the prediction and record what you learned.
### FILLING OUT A PDCA CYCLES RECORD

**Prediction Side:**
Before the first coaching cycle the Learner proposes the 1st step, what will be measured, and what s/he expects in the first two boxes of the form.

**Threshold of Knowledge:**
- What do we need to learn now?
- How will we test it?
- How will we measure it?

---

**PDCA Cycles Record**
(Each row = one experiment)

<table>
<thead>
<tr>
<th>Obstacle:</th>
<th>Process:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date, step &amp; metric:</td>
<td>What do you expect?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learner:</th>
<th>Coach:</th>
</tr>
</thead>
<tbody>
<tr>
<td>What happened</td>
<td>What we learned</td>
</tr>
</tbody>
</table>

**Do a Coaching Cycle**: Conduct the Experiment

**Now the Learner and Coach do a coaching cycle**

**Then the Learner conducts the experiment**
FILLING OUT A PDCA CYCLES RECORD

1️⃣ PREDICTION SIDE:
Before the first coaching cycle the Learner proposes the 1st step, what will be measured, and what s/he expects in the first two boxes.

2️⃣ EVIDENCE SIDE:
Once the step (experiment) is done, the Learner fills in data on What Happened, reflects by comparing that with the expectation, and records What We Learned.
FILLING OUT A PDCA CYCLES RECORD

1. **PREDICTION SIDE:**
   Before the first coaching cycle the Learner proposes the 1st step, what will be measured, and what s/he expects in the first two boxes.

2. **EVIDENCE SIDE:**
   Once the step (experiment) is done, the Learner fills in data on What Happened, reflects by comparing that with the expectation, and records What We Learned.

3. **PREDICTION SIDE:**
   Based on what was learned in the last experiment, the Learner proposes the next step, what will be measured and what s/he expects.
THE SCIENTIFIC LEARNING CYCLE IS EMBEDDED IN THE PDCA CYCLES RECORD

To make the cycle easy to operationalize & practice

<table>
<thead>
<tr>
<th>Obstacle:</th>
<th>Process:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date, step &amp; metric</td>
<td>Process:</td>
</tr>
<tr>
<td>Learner:</td>
<td>Coach:</td>
</tr>
<tr>
<td>What do you expect?</td>
<td>What happened</td>
</tr>
</tbody>
</table>

---

**ACTION**

**PDCA CYCLES RECORD** *(Each row = one experiment)*

**PREDICTION**

Do a Coaching Cycle
Conduct the Experiment

**EVIDENCE**

**EVALUATE**
CONDUCT EACH EXPERIMENT AS CHEAPLY AND QUICKLY AS POSSIBLE

Since you can only see the next true obstacle after you take a step, do the experiment now with whatever you have.

Take this step as soon as possible, with “duct tape and baling wire” if necessary, so you can see further. *Don’t wait until you have a perfect solution. A provisional step is OK.*
DON'T EXPECT EVERY STEP TO BRING A MEASURABLE BENEFIT

It’s the Target Condition, which has an achieve-by date and is measurable, that brings the benefit. Failed experiments along the way are useful discoveries that show you what you need to focus on to achieve that goal by the desired date. That’s normal.
How to Process the Results of an Experiment

*Instructions for the Learner*

1. Record data about what actually happened (B).

2. Compare the prediction you recorded before the experiment (A) and the data from the experiment (B). Summarize what you learn (C).

3. Taking all of that in, decide what you plan for your next step (the next experiment), and what you expect (D).

*The Learner should physically point to this information during the Coaching Cycle*
What the Coach Does

The job of the Coach at this step is to ensure that the Learner is following good procedure as s/he conducts experiments toward the Target Condition.
THE COACH CONTINUES TO USE THE FIVE-QUESTION CARD

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

The card is turned over to reflect on the Learner’s last step

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
## EXECUTING-PHASE COACHING CYCLES
### What the Learner should do in response to the Five Questions

<table>
<thead>
<tr>
<th>Coach’s Question:</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 What is the challenge?</td>
<td>Learner explains what s/he understands the overarching challenge to be, which comes from the level above the Learner.</td>
</tr>
<tr>
<td>1 What is the target condition?</td>
<td>Learner reads through the description of the target condition that’s on the storyboard, pointing to the items as s/he reads.</td>
</tr>
<tr>
<td>2 What is the actual condition now?</td>
<td>The Learner reads through the facts, data and diagrams on the storyboard that describe the current condition as it is now (not the initial current condition). The Learner should point as s/he reads.</td>
</tr>
<tr>
<td>What did you plan as your last step?</td>
<td>Learner reads the first box on the PDCA Cycles Record.</td>
</tr>
<tr>
<td>What did you expect?</td>
<td>Learner reads the second box on the PDCA Cycles Record.</td>
</tr>
<tr>
<td>What actually happened?</td>
<td>Learner reads the third box on the PDCA Cycles Record.</td>
</tr>
<tr>
<td>What did you learn?</td>
<td>Learner reads the fourth box on the PDCA Cycles Record.</td>
</tr>
<tr>
<td>3 What obstacles do you think are preventing you from reaching the target condition?</td>
<td>Learner reads through the items on the Obstacles Parking Lot and then points to the obstacle they are currently working on. The Learner should have an arrow next to this obstacle. The Learner may work on one obstacle for several PDCA cycles.</td>
</tr>
<tr>
<td>Which <em>one</em> are you addressing now?</td>
<td>Learner proposes the next step, reading the first and second boxes in the next row of the PDCA cycles record. Ensure the Learner is designing a good next experiment before you approve it.</td>
</tr>
<tr>
<td>4 What is your next step? (next experiment)</td>
<td>Learner proposes date &amp; time for the next coaching cycle. Ensure that the Learner is doing the experiment as soon, quickly &amp; cheaply as possible. Agree on facts &amp; data to bring to next coaching cycle.</td>
</tr>
<tr>
<td>What do you expect?</td>
<td></td>
</tr>
</tbody>
</table>
The Learner should re-time and re-draw the "Actual Condition Now" Run Chart(s) before a coaching cycle, so you have the latest data.
An "Executing Phase" coaching cycle should lead to some kind of next experiment

1) What is the target condition?

2) What is the actual condition now?
   -- (flip card & reflect on last step) --

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?

Note that a coaching cycle is about reflecting on the last experiment and looking ahead to the next one. Problems don't get solved in coaching cycles. That happens through the Learner's experiments.
During a coaching cycle the Coach should listen for the **Current Knowledge Threshold**

This is usually where the Learner’s next experiment should be

The Knowledge Threshold is the point at which the Learner has no facts or data and starts guessing

Hey Coach

There's a knowledge threshold in every coaching cycle.

When you hit a knowledge threshold, have the Learner plan the next experiment there. Ask... "How can we find that out?"
WATCH AN EXECUTING-PHASE COACHING CYCLE AT THE FOLLOWING LINK

https://www.youtube.com/watch?v=ySdYX4cNPsQ

What is your Target Condition?
When you get to the Target Condition's Achieve-By date, the four IK steps repeat
Over time you can tailor these routines and tools to suit your organization

Every organization is unique, and each ultimately requires slightly different practice routines. We've learned only too well that simply benchmarking and copying what other organizations are doing is not effective.

However, the first stage of your practicing is to try to do these practice routines exactly. If you practice daily and gain some proficiency, you’ll absorb the scientific logic and purpose behind these tools and routines. At that point you can be more open and develop your own style, so long as it continues to incorporate the logic.

By initially setting limits on practice improvisation you’ll acquire a sense for the essence, which then allows you to handle diverse situations skillfully.
IF YOU WANT MORE DETAIL:

On the "Toyota Kata Website"

**Improvement Kata Handbook**

The continually-evolving online Improvement Kata Handbook is the resource for anyone who wants to practice or coach the Improvement Kata's scientific pattern of thinking and acting.
BEST WISHES!
For developing scientific mindset