

Improvement **Kata** & Coaching **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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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.

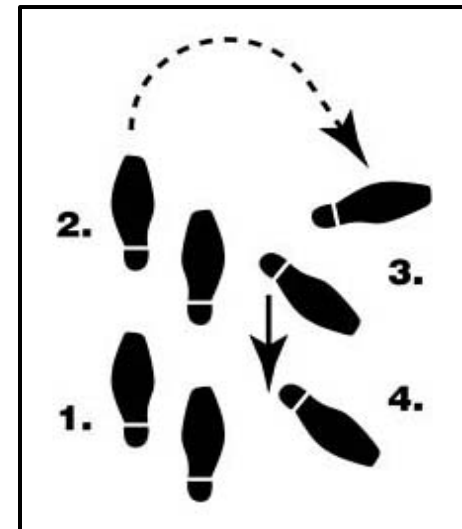
This is a good way to navigate the unclear territory between any challenging goal and where you stand today.



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

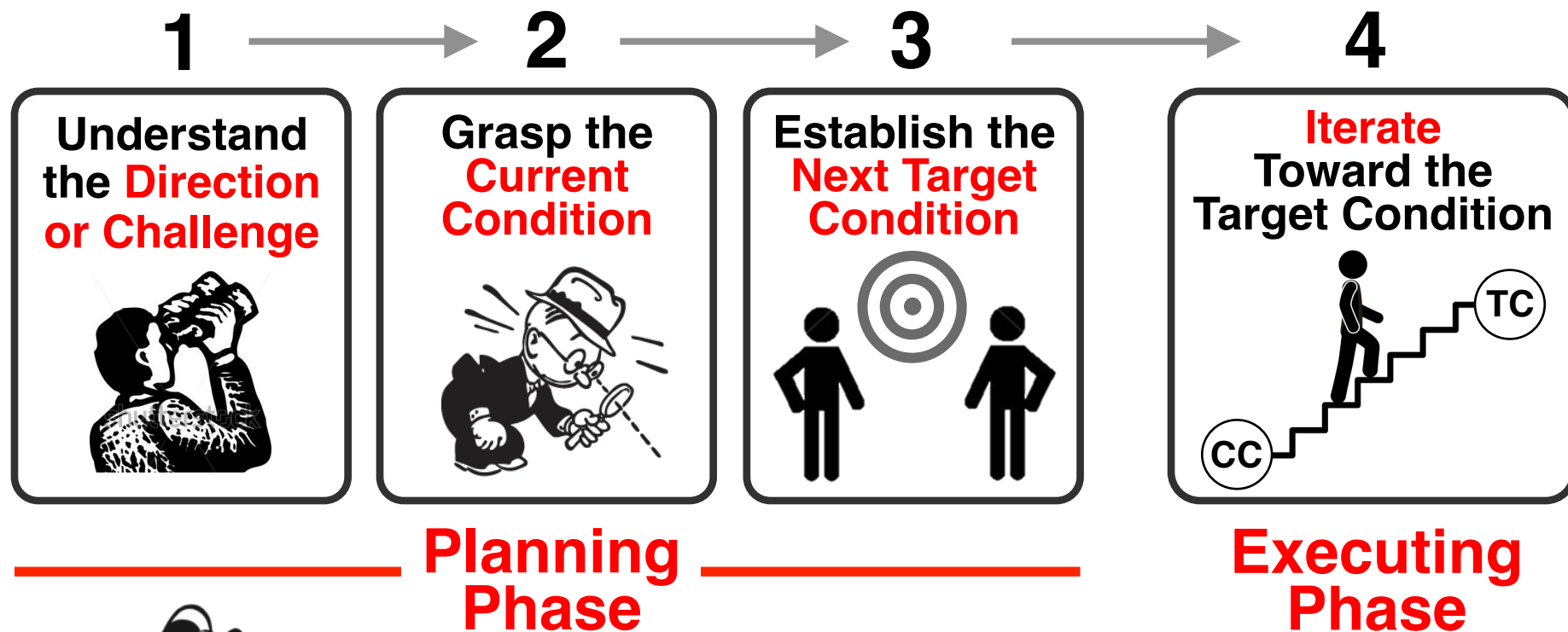
Stages of Kata Practice:

- (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

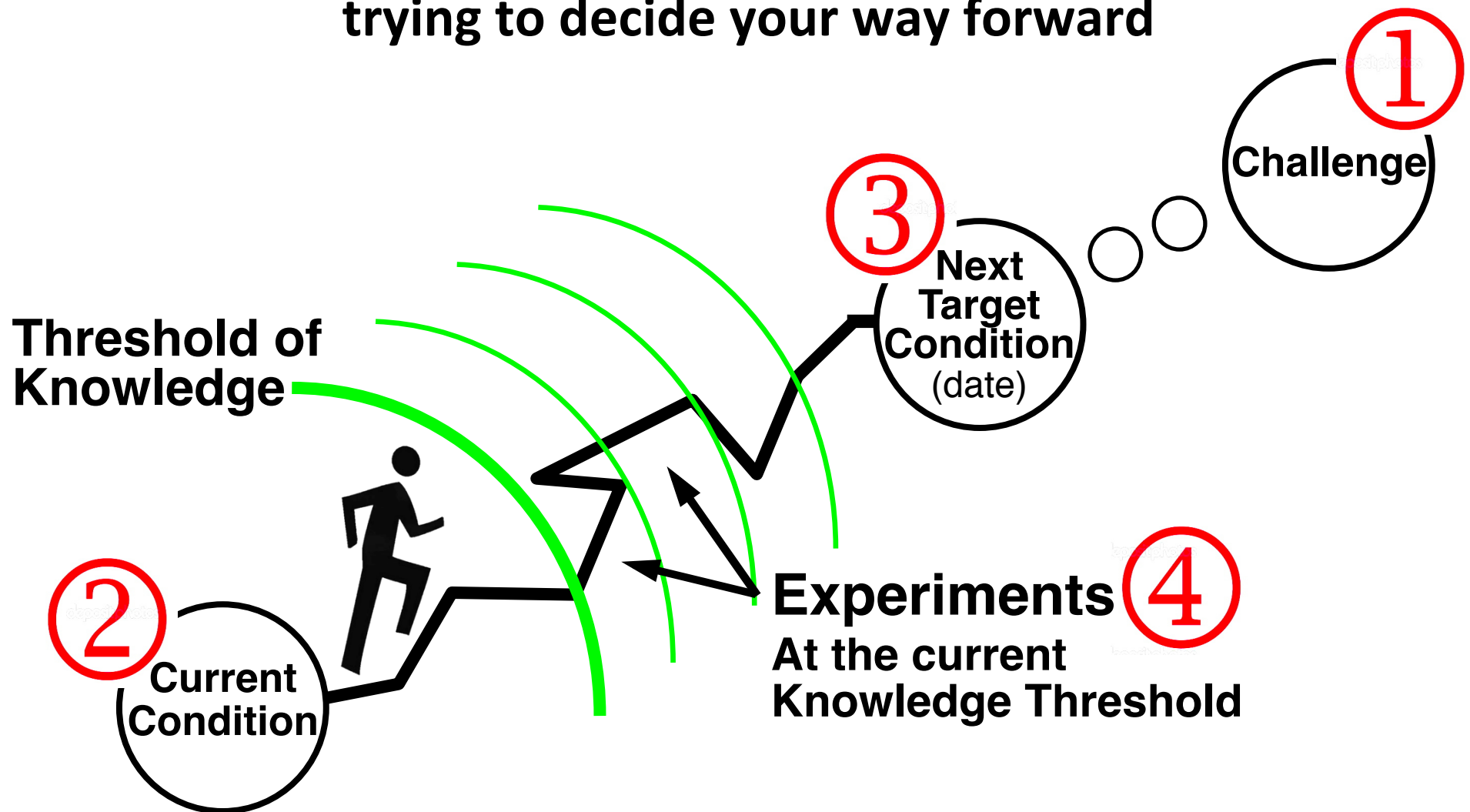
The Improvement Kata is a teachable model of a scientific way of thinking & acting



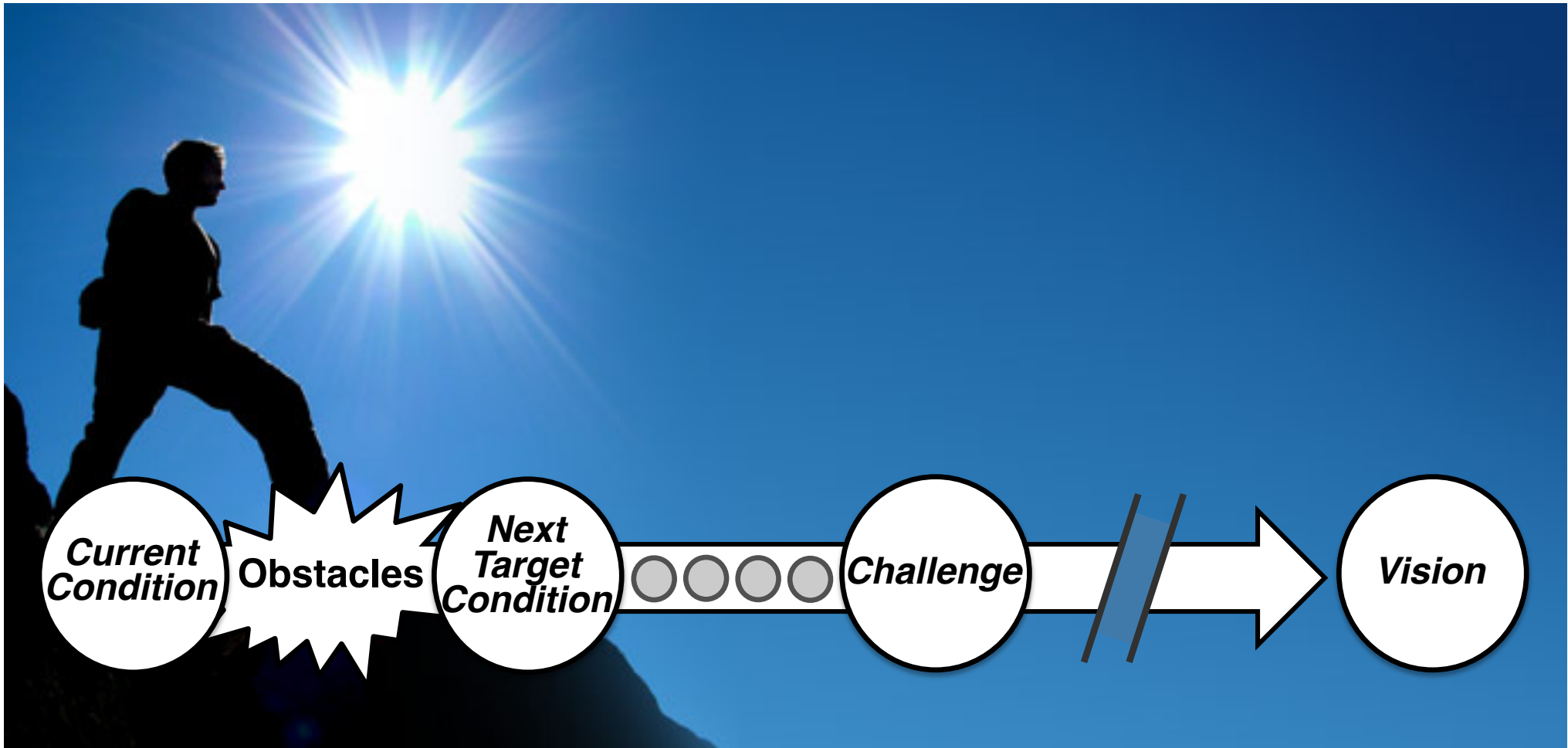
Note that there is a "Planning Phase" and an "Executing Phase"

WHAT THE STEPS LOOK LIKE IN PRACTICE

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

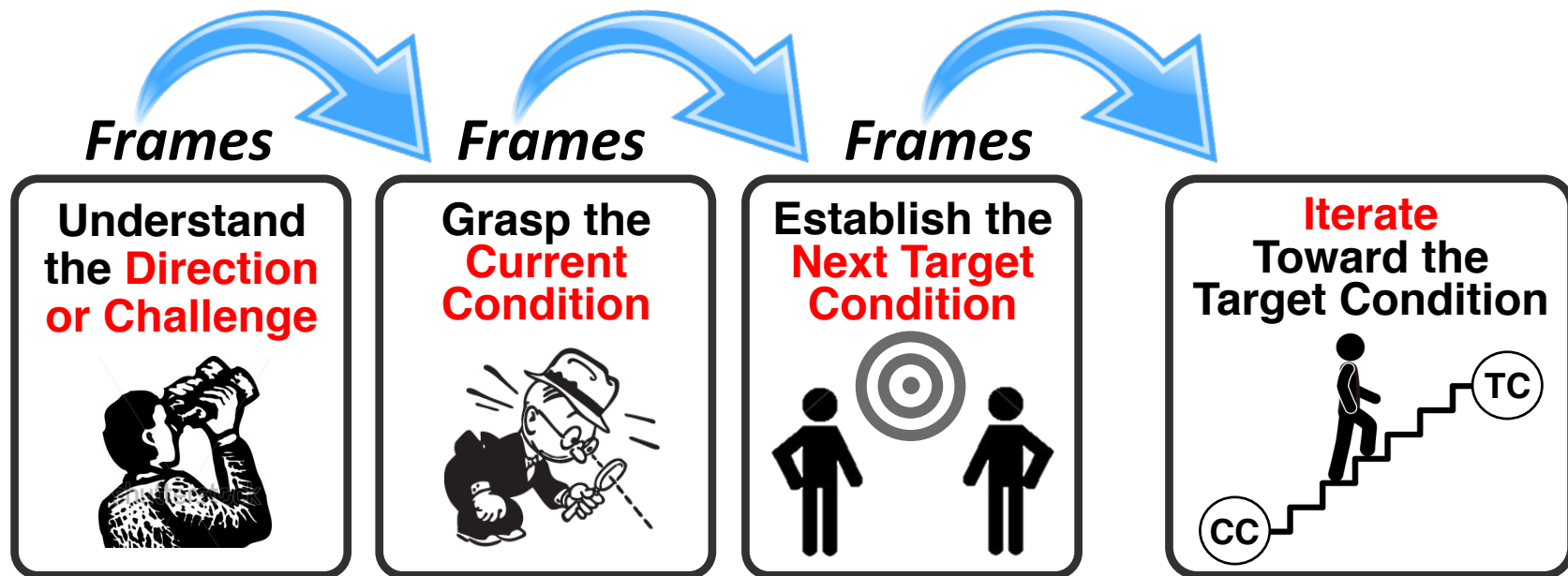


THE IMPROVEMENT KATA MODEL



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.

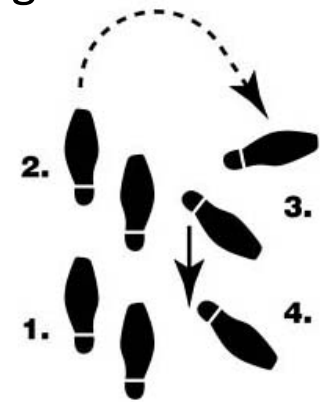




INSTRUCTIONS

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

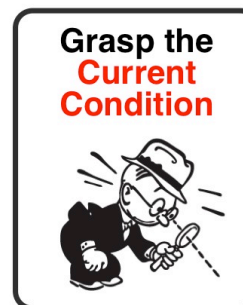
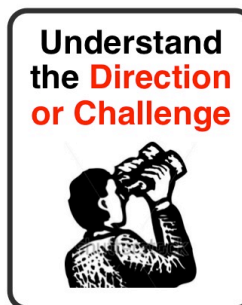
Step 4: Select a focus process

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.

LEARNER	COACH	
you	2 nd person	
2 nd person	you	

* 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.

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

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 COACH USES THE 5-QUESTION CARD

In each coaching cycle the Coach asks all questions on the front & back of the card, one at a time. You can also ask additional clarifying questions.



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**?

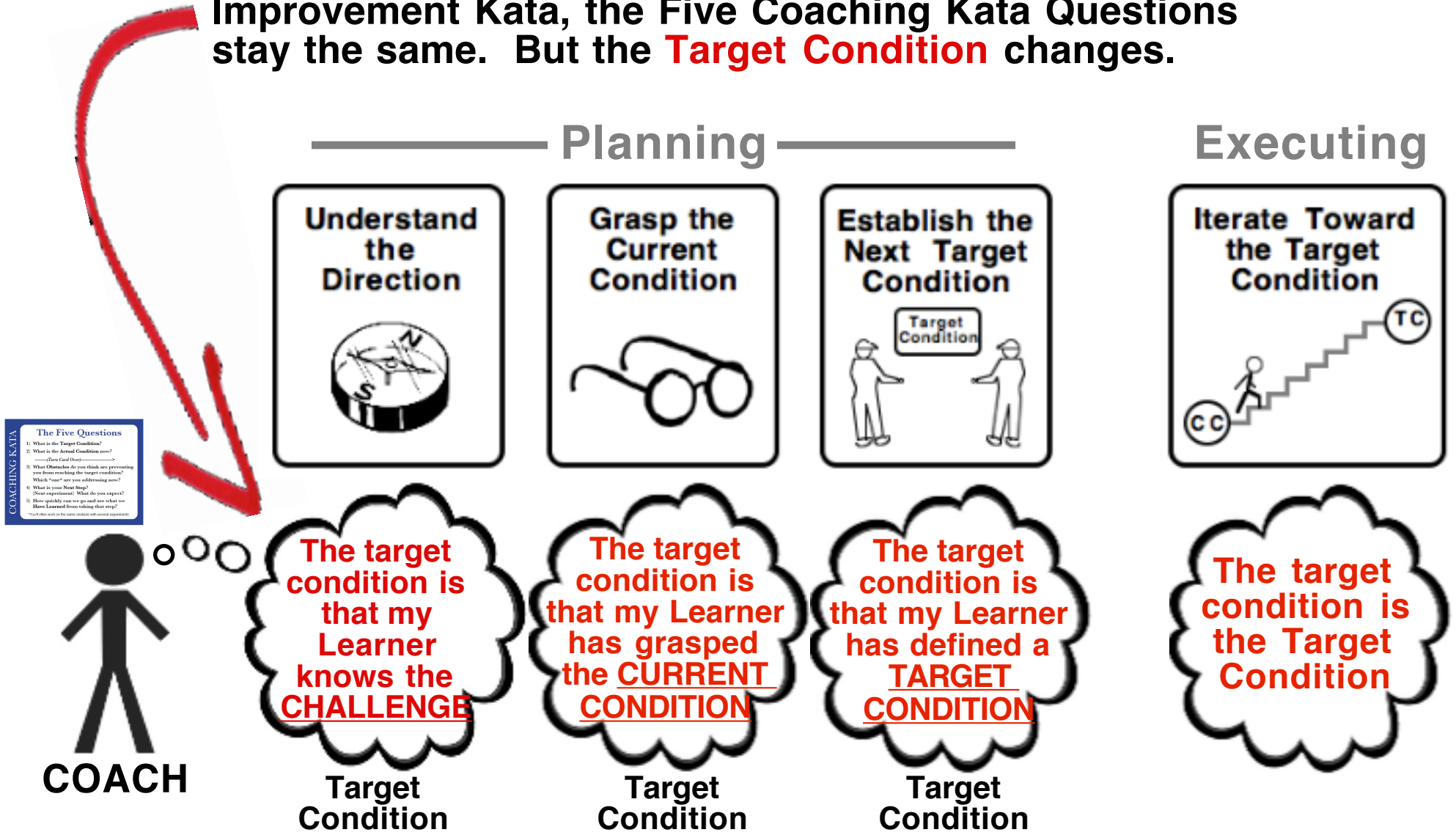
----->
Return to question 3

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



ASKING THE LEARNER THE 5 QUESTIONS

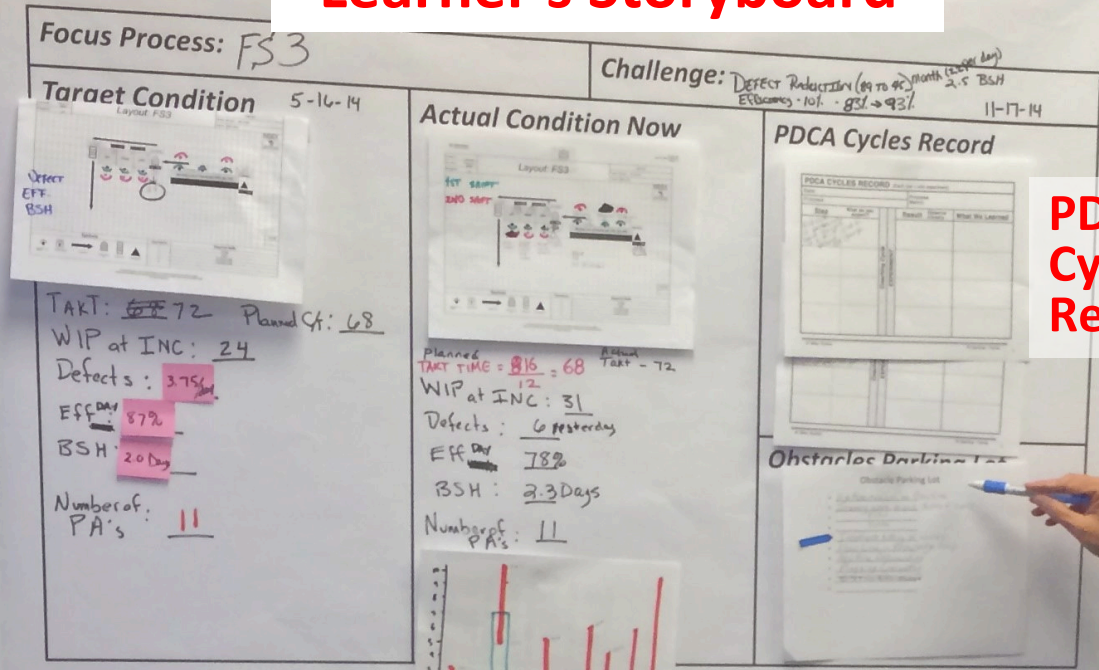
As the Learner goes through the four steps of the Improvement Kata, the Five Coaching Kata Questions stay the same. But the **Target Condition** changes.



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



PDCA Cycles Records



Coach

5-Question Card

Obstacles Parking Lot

Learner

Run Charts

-- A COACHING CYCLE --

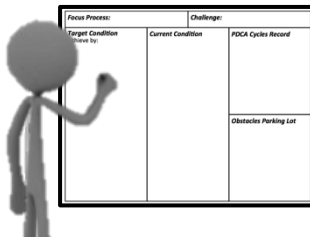
STEP 2: PRINT AND POST ONE STORYBOARD POSTER FOR EACH LEARNER

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.

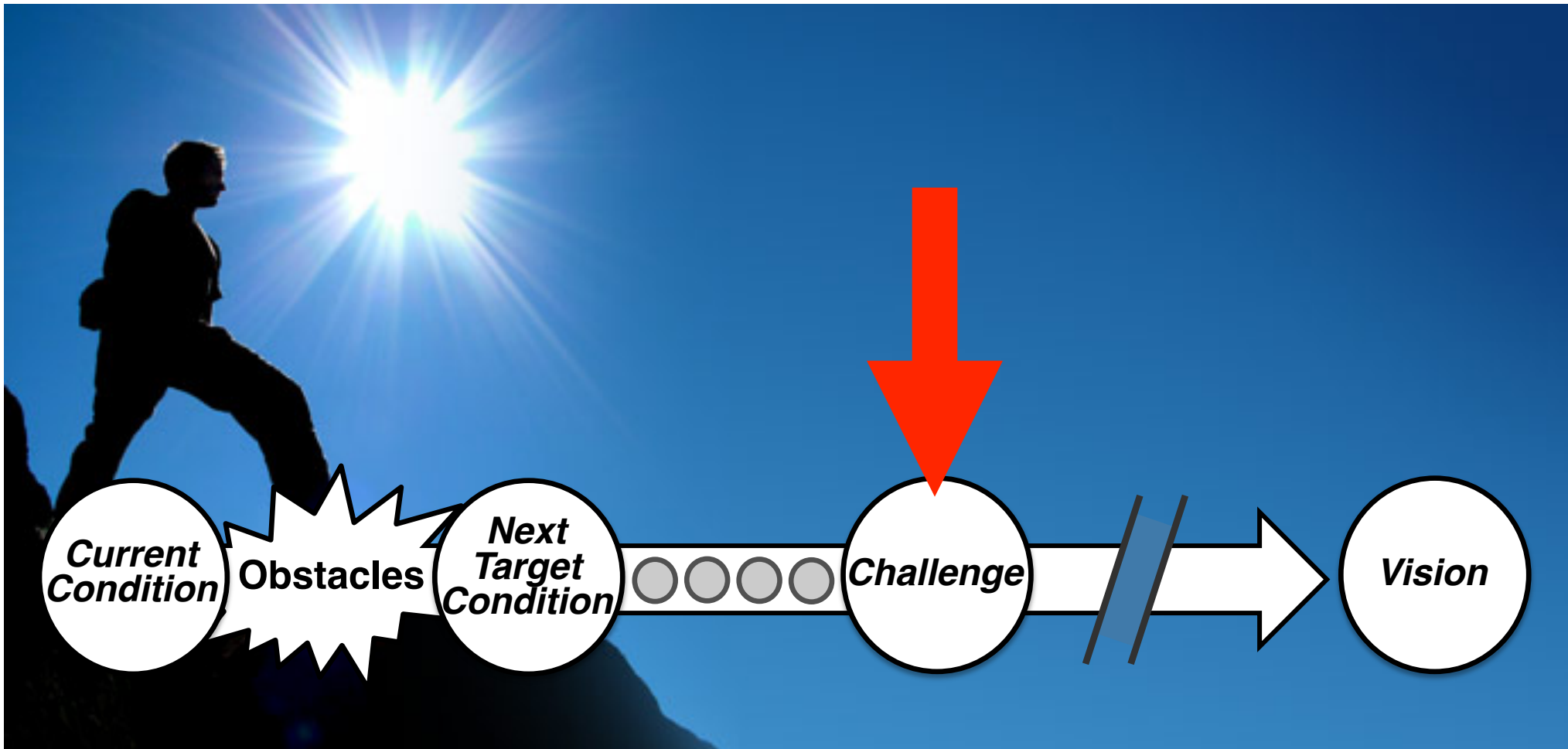
You'll be posting items from the following steps in the corresponding fields on the Storyboard



<i>Focus Process:</i>		<i>Challenge:</i>
<i>Target Condition</i> Achieve by:	<i>Actual Condition Now</i>	<i>PDCA Cycles Record</i>
		<i>Obstacles Parking Lot</i>

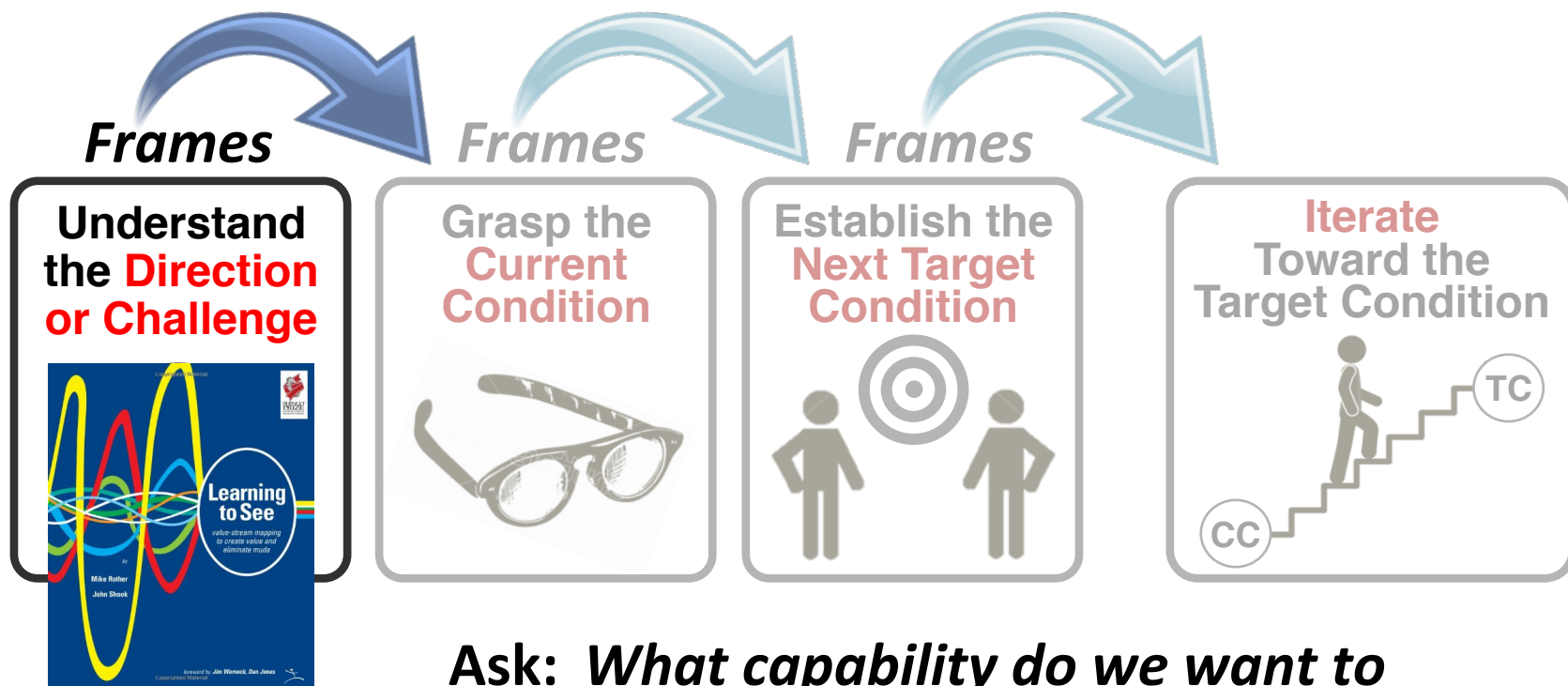
STEP 3: DEFINE YOUR CHALLENGE

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.

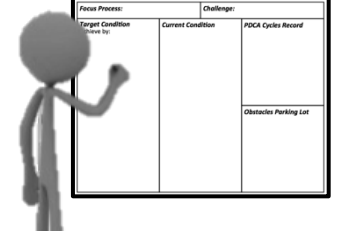


VSM Here

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



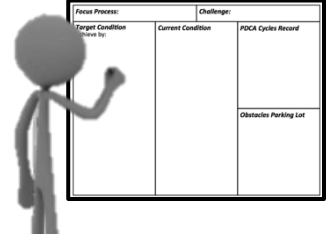
A challenge is a description of success 1-3 years in the future that people can rally around. A good challenge focuses our efforts and is often published as a compact, inspiring *challenge statement*.

Example Challenge	Example Challenge Statement (Goes on the Learner's Storyboard)
Build one customer kitchen at a time and put it right on the truck.	<i>Build to truck, kitchen at a time</i>
Have lab-test results done in 45 minutes, with no errors.	<i>Know in 45</i>
Assemble the day ordered, and ship the next day.	<i>Same day, next day</i>



STEP 4: SELECT A FOCUS PROCESS

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



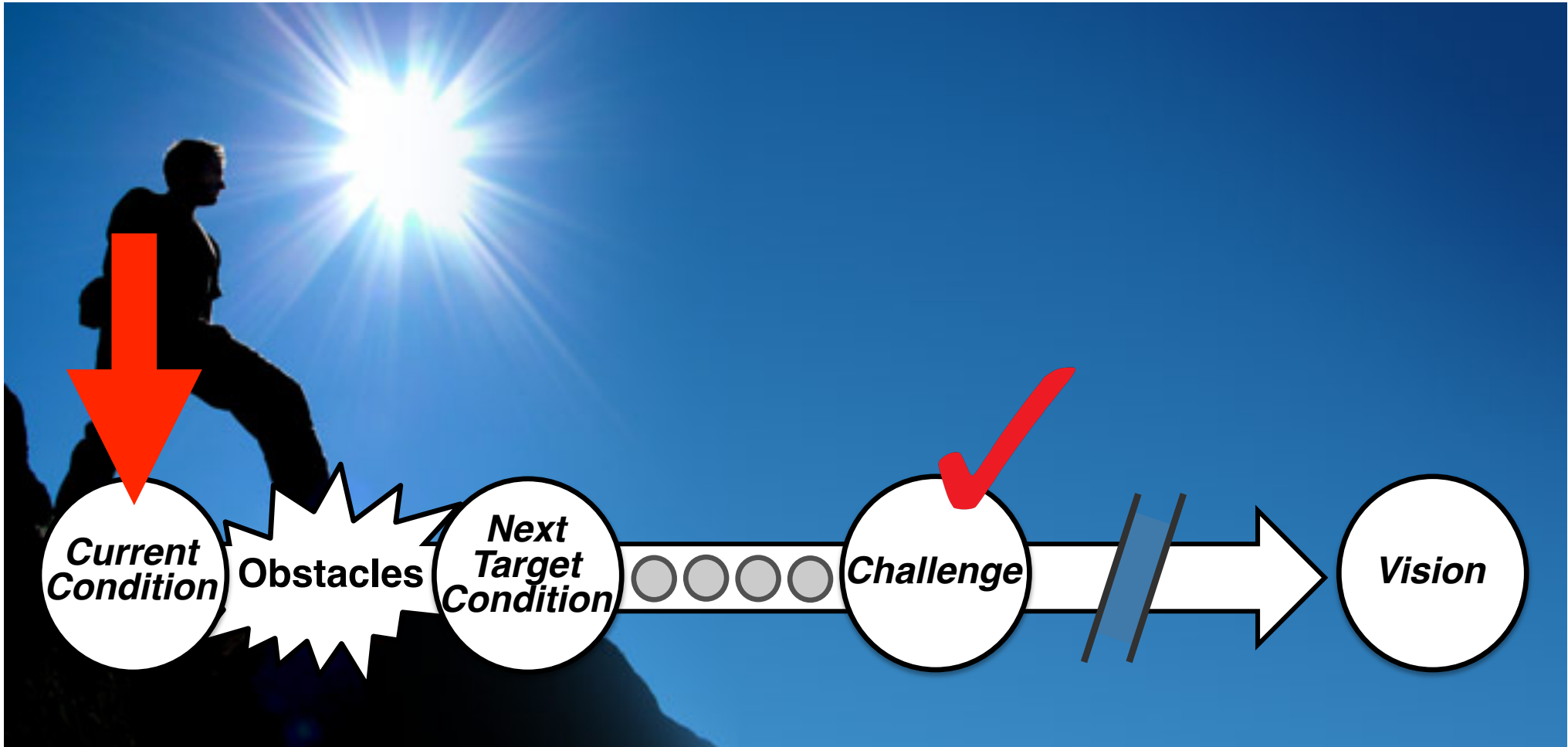
Choose a work process that is relatively easy to understand and analyze. This way the Learner can concentrate on practicing the pattern of the Improvement Kata rather than getting overwhelmed by the work process itself.

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.

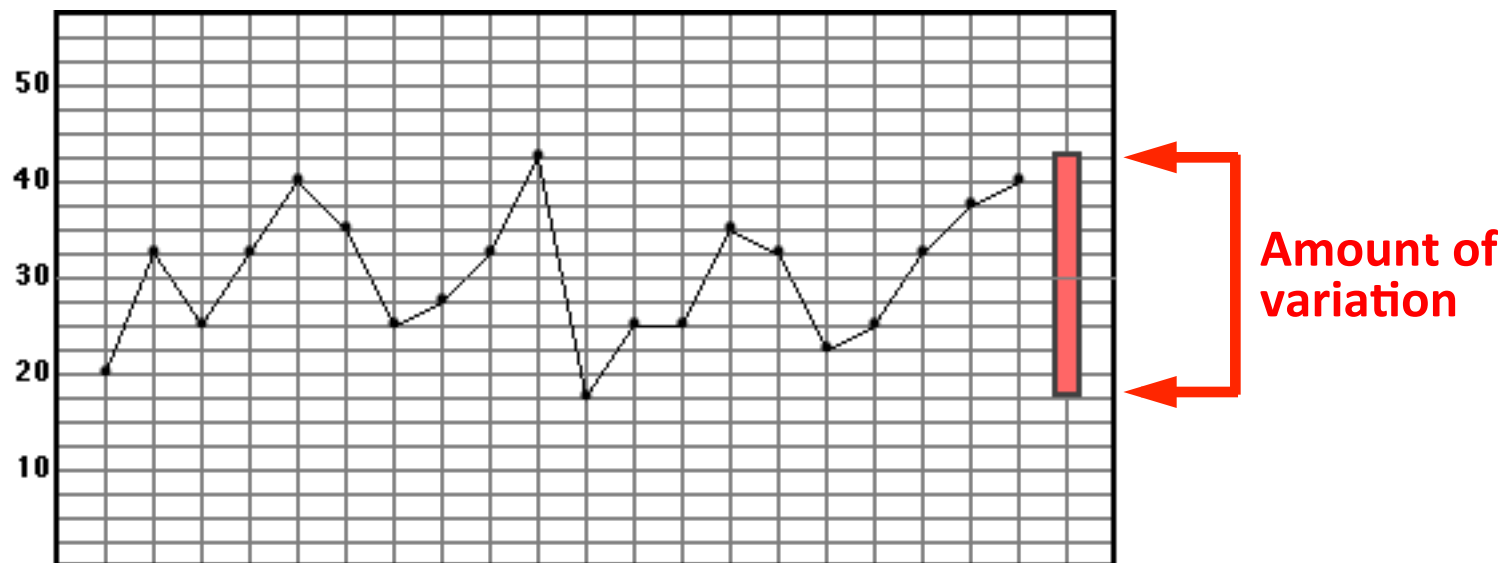
STEP 5: GRASP THE CURRENT CONDITION AT THE FOCUS PROCESS



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 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.

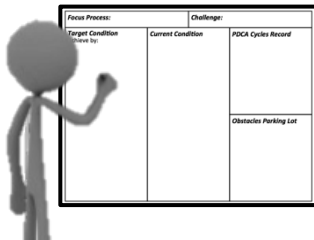
TIME 20-30 EXIT CYCLES FOR EACH PERSON WORKING IN THE FOCUS PROCESS

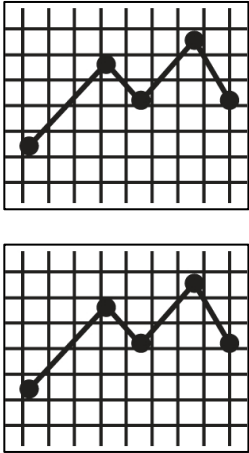
- Select a single point in the person's work cycle.
- Start your stopwatch when the person gets to that point in the work cycle, and let the stopwatch run until the person returns to this point, no matter what takes place. You are timing full cycles, called "Exit Cycles."
- Do not discard any cycles. 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

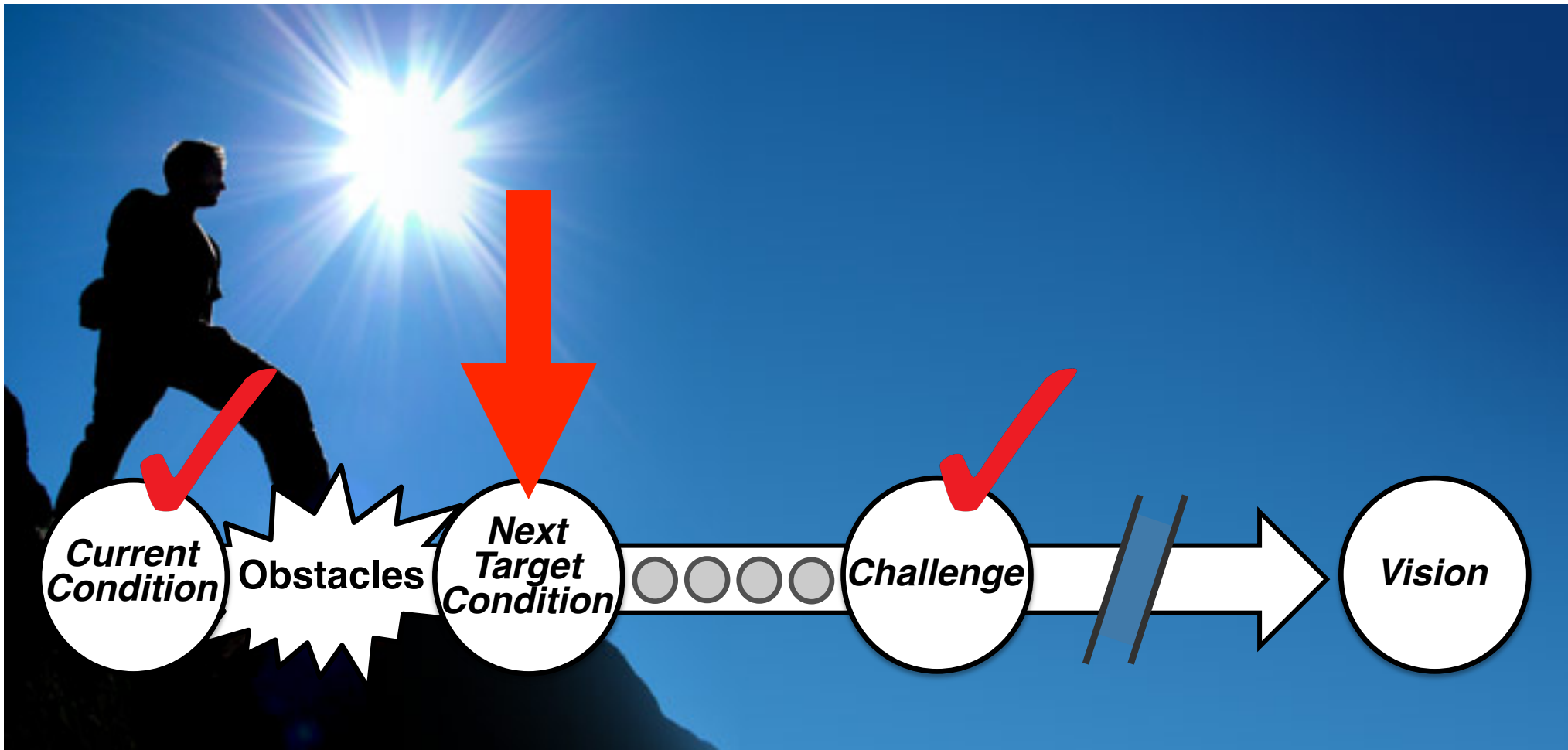
You can add notes or any other current condition data, information or observations you think are important



<i>Focus Process:</i>	<i>Challenge:</i>	
<i>Target Condition</i> Achieve by:	<i>Actual Condition Now</i> Post the Current Condition run charts here 	<i>PDCA Cycles Record</i>
		<i>Obstacles Parking Lot</i>

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.

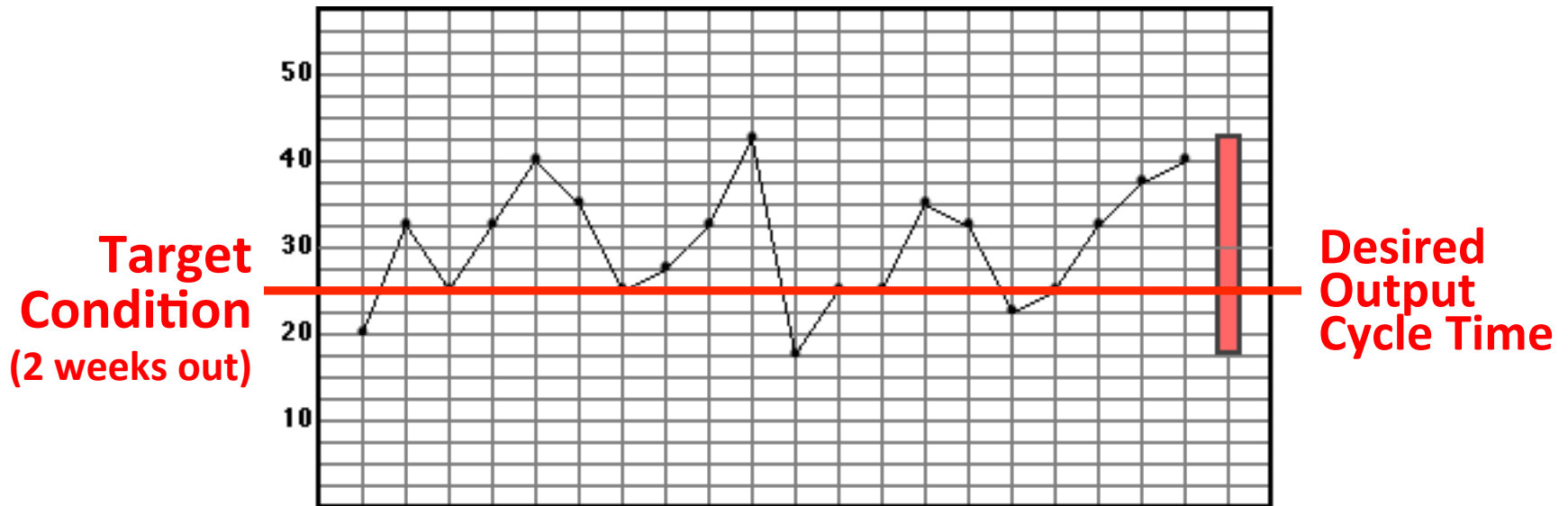


SET A TARGET CONDITION WITH A DATE OF TWO (2) WEEKS FROM TODAY



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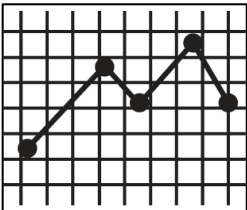
Do not turn the Parking Lot into an action-item list. It's just a place to note and hold perceived obstacles, which you may or may not work on.

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.

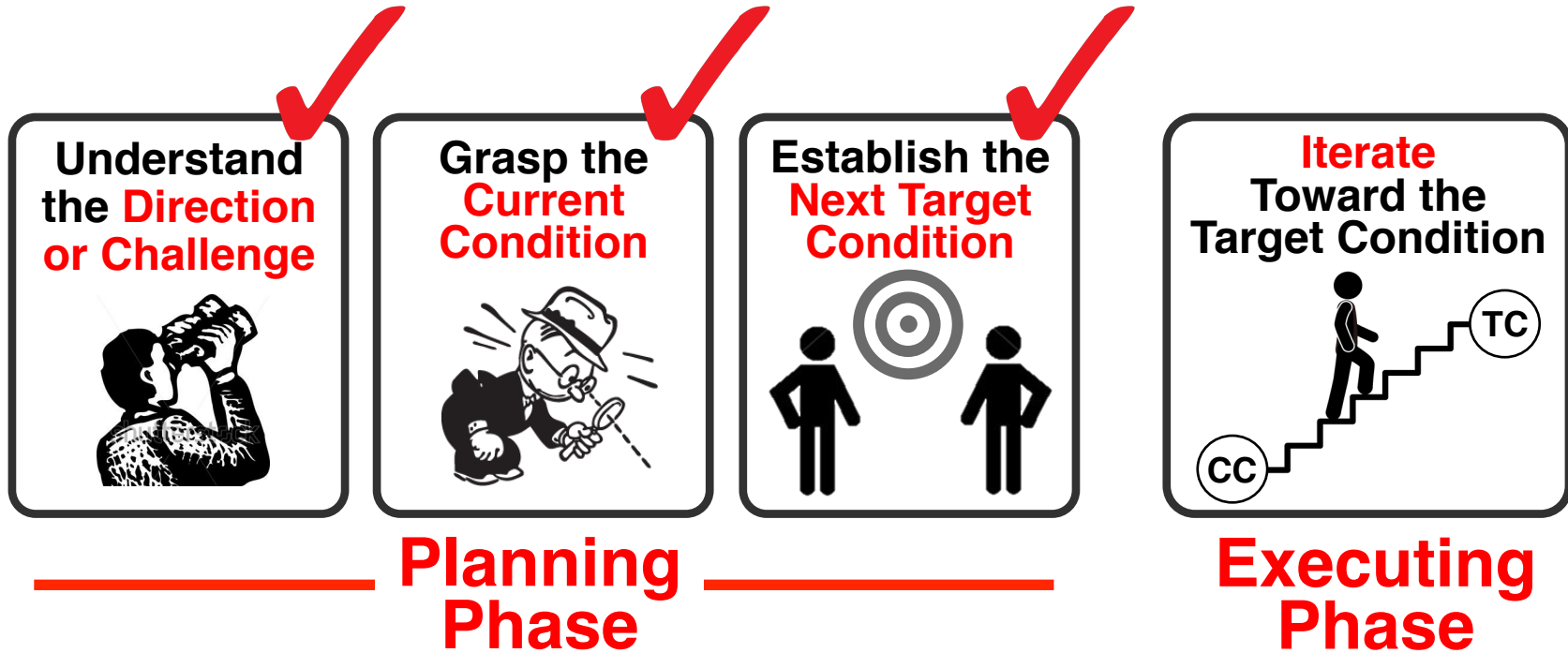
POST THIS RUN CHART AND THE OBSTACLES PARKING LOT ON THE STORYBOARD



Focus Process:	Challenge:	
Target Condition Achieve by:	Actual Condition Now	PDCA Cycles Record
		Obstacles Parking Lot

Focus Process:	Challenge:	
Target Condition Achieve by: <i>Post the Target Condition run chart here</i> 	Actual Condition Now	PDCA Cycles Record
		Obstacles Parking Lot

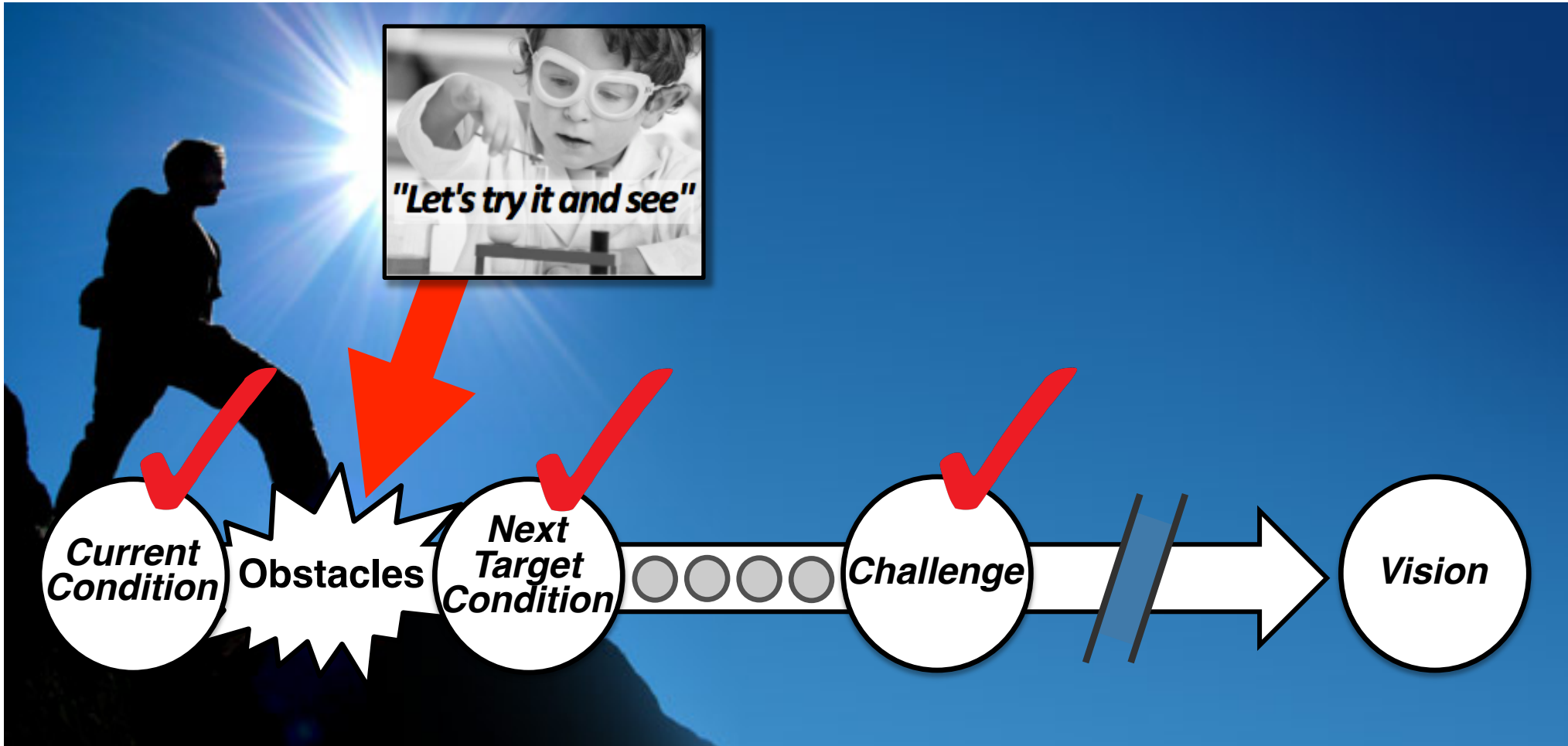
THIS COMPLETES THE *PLANNING* PHASE OF THE IMPROVEMENT KATA



Focus Process:		Challenge:
Target Condition Achieve by:	Actual Condition Now	PDCA Cycles Record
✓	✓	
		Obstacles Parking Lot
		✓

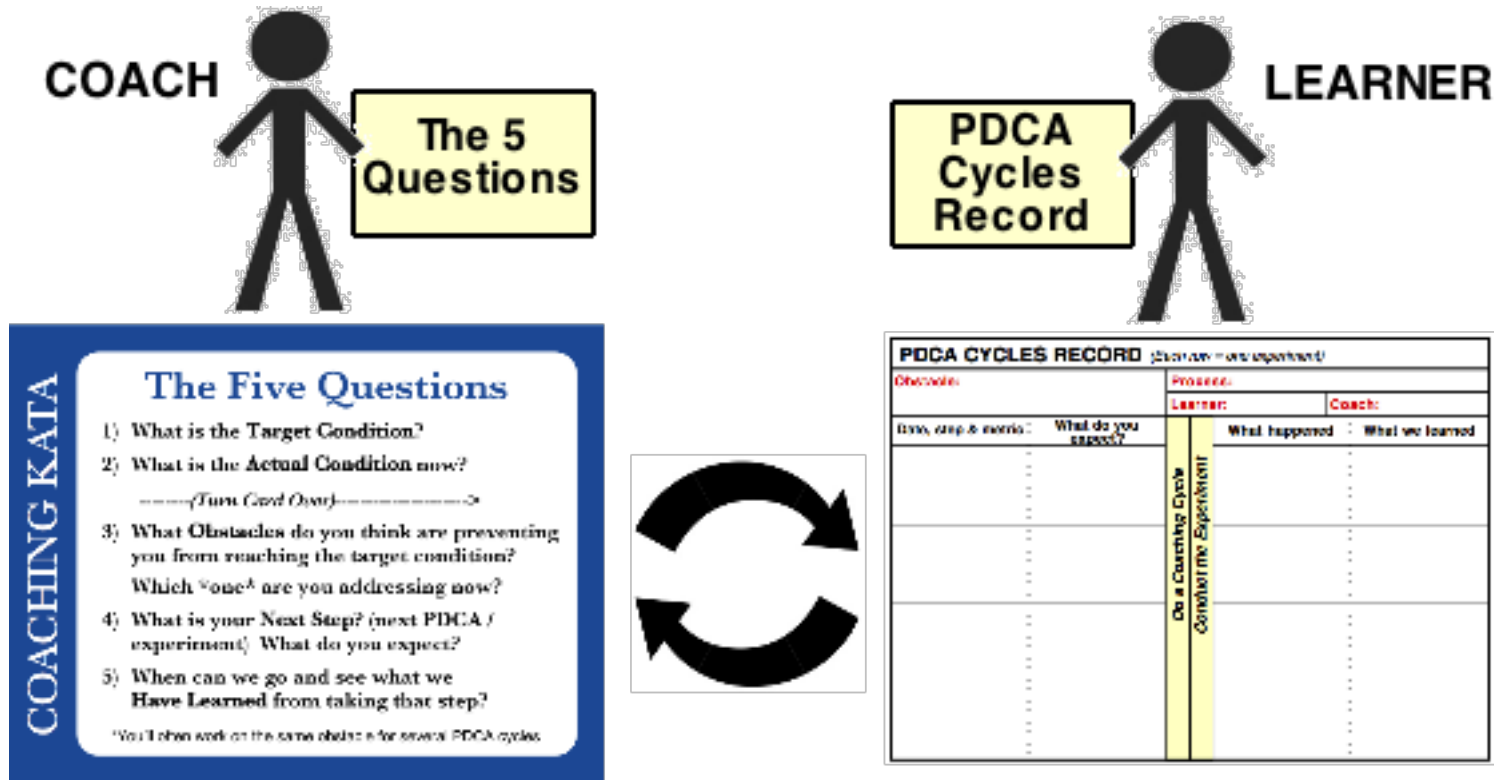
STEP 7: ITERATE TOWARD THE TARGET CONDITION

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)			
Obstacle:		Process:	
		Learner:	Coach:
Date, step & metric	What do you expect?	What happened	What we learned

PDCA Cycles Record

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?
(What's gone 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?

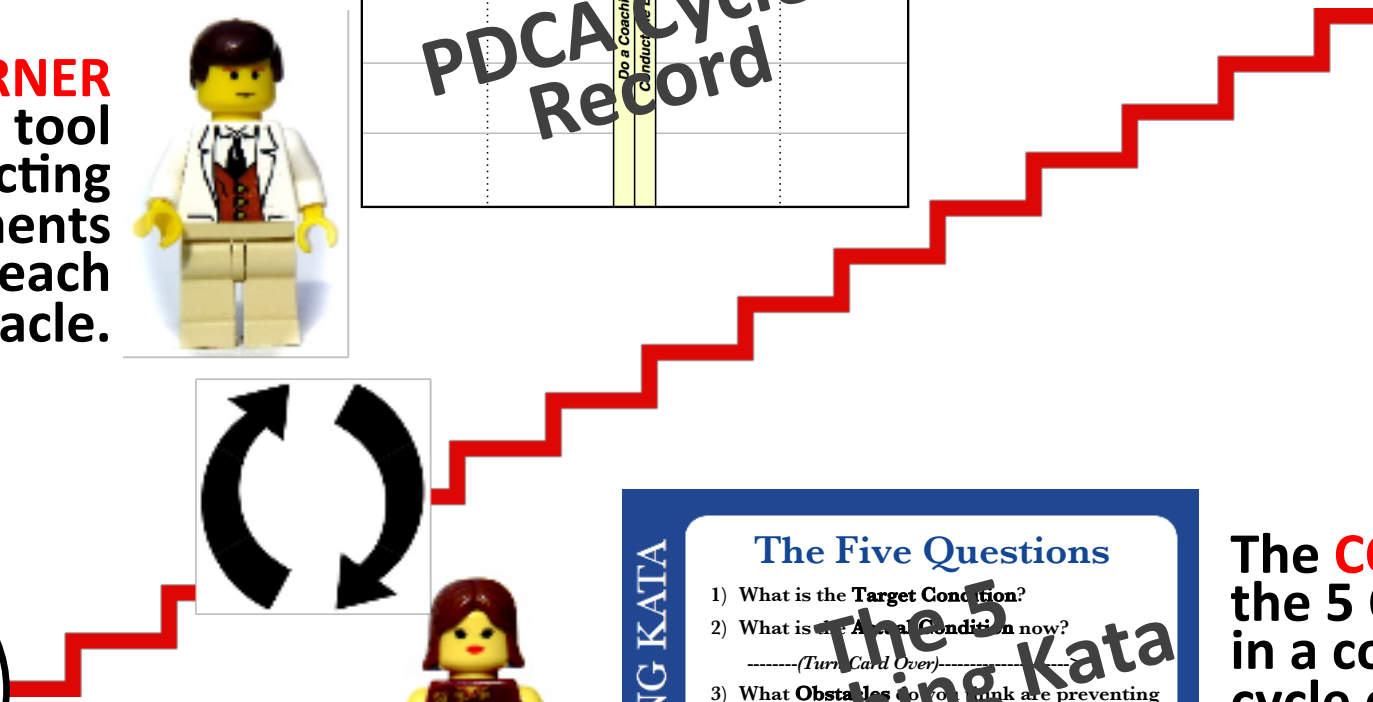
*You'll often work on the same obstacle with several experiments

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

Current Condition



Next Target Condition





What the **Learner** Does



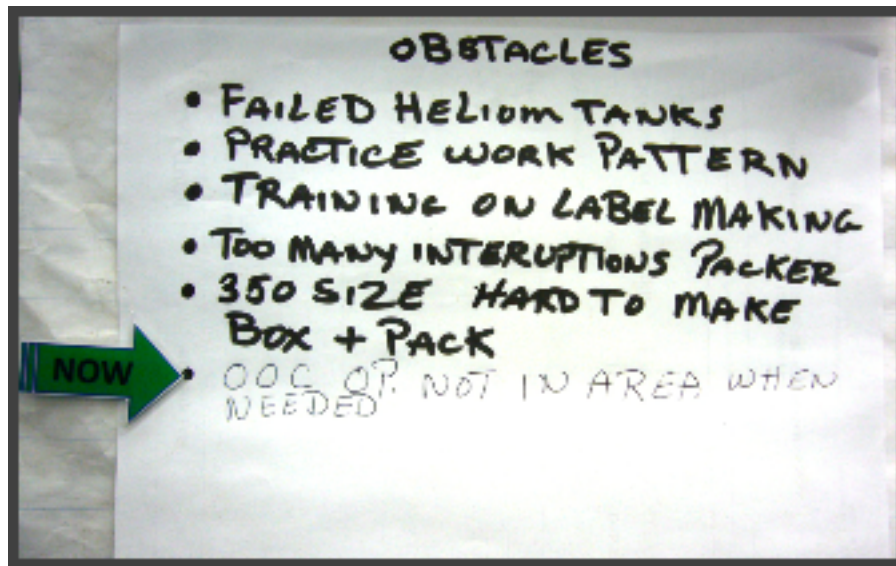
The Learner plans and reflects on his/her experiments by recording them in the PDCA CYCLES RECORD.

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.



Obstacle Parking Lot

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

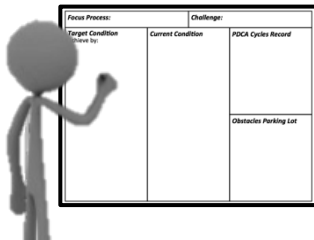
THE LEARNER'S PDCA CYCLES RECORD

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

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



<i>Focus Process:</i>		<i>Challenge:</i>																																																
Target Condition Achieve by:	Actual Condition Now	PDCA Cycles Record <table border="1"><thead><tr><th colspan="4">PDCA CYCLES RECORD (each row = one experiment)</th></tr><tr><th>Obstacle</th><th>Process</th><th>Learner</th><th>Coach</th></tr><tr><th>Date, step & metric</th><th>What do you expect?</th><th>What happened</th><th>What we learned</th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></tbody></table>	PDCA CYCLES RECORD (each row = one experiment)				Obstacle	Process	Learner	Coach	Date, step & metric	What do you expect?	What happened	What we learned																																				
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Date, step & metric	What do you expect?	What happened	What we learned																																															
		Obstacles Parking Lot																																																

Post PDCA Cycles Records here

LAYOUT OF THE PDCA CYCLES RECORD

One obstacle per form*

Each row = one experiment against the current obstacle

This is the obstacle to the target condition, that you are currently working on.

** Whenever the Learner starts working on a new obstacle, s/he should start a new PDCA Cycles Record*

PDCA CYCLES RECORD (Each row = one experiment)				
Obstacle:		Process:		
		Learner:	Coach:	
Date, step & metric:	What do you expect?	Do	Check	What happened
		Act	Learn	What we learned
Last Experiment				
Next Experiment				
		Do	Check	
		Act	Learn	



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

THE BASIC PATTERN

For using the PDCA Cycles Record

PDCA CYCLES RECORD <i>(Each row = one experiment)</i>				
Obstacle:		Process:		
		Learner:	Coach:	
Date, step & metric	What do you expect?	Do a Coaching Cycle		What we learned
		Conduct the Experiment		
	1			2
	3			

- (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

PDCA CYCLES RECORD <i>(Each row = one experiment)</i>			
Obstacle:		Process:	
		Learner:	Coach:
Date, step & metric :	What do you expect?	What happened :	What we learned
<p>Prediction Side</p> <p>Written before the experiment</p>		<p>Evidence Side</p> <p>Recorded after the experiment</p>	

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

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

Now the Learner and Coach do a coaching cycle

Then the Learner conducts the experiment

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Obstacle:		Process:	
		Learner:	Coach:
Date, step & metric:	What do you expect?	What happened	What we learned
		X	X

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

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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

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
<div style="border: 2px solid gray; border-radius: 15px; padding: 5px; display: inline-block;"> Next Experiment X X </div>			

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

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

THE SCIENTIFIC LEARNING CYCLE IS EMBEDDED IN THE PDCA CYCLES RECORD

To make the cycle easy to operationalize & practice

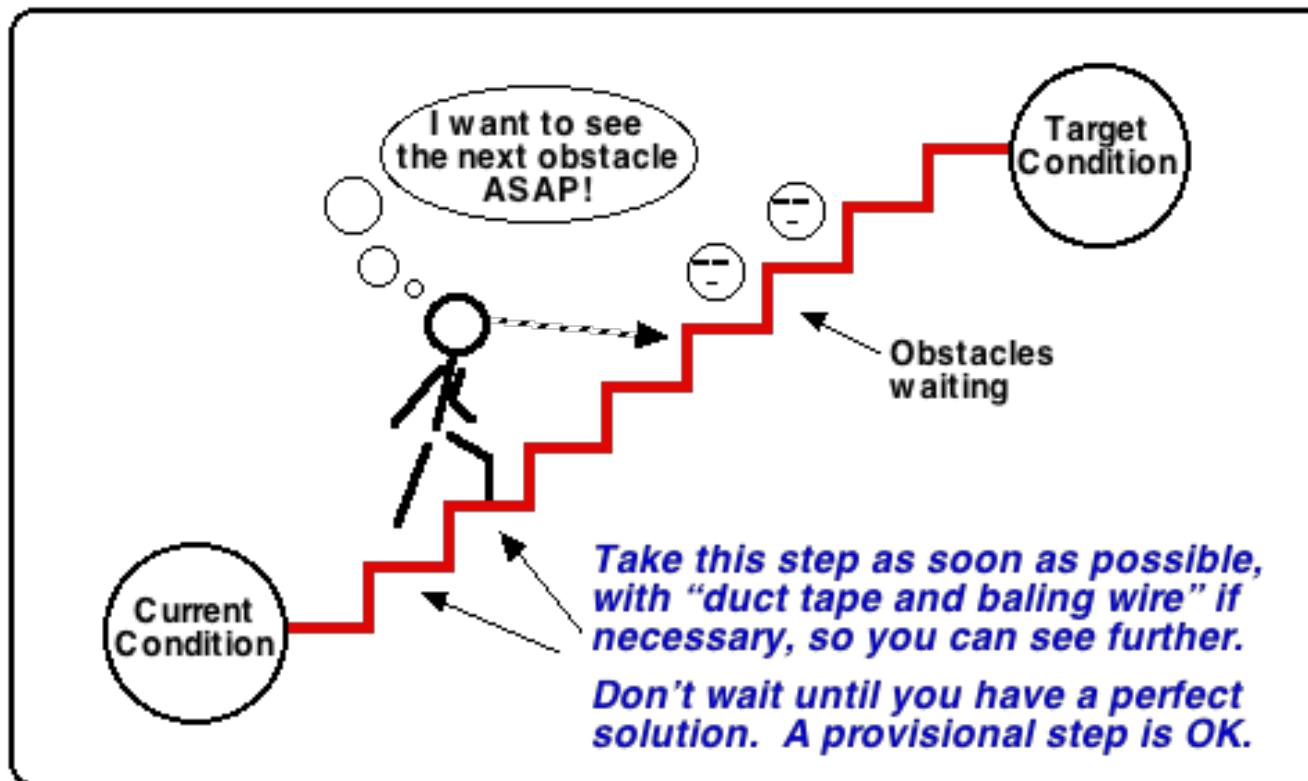
ACTION

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
PREDICTION		EVIDENCE	EVALUATE

Do a Coaching Cycle
Conduct the Experiment

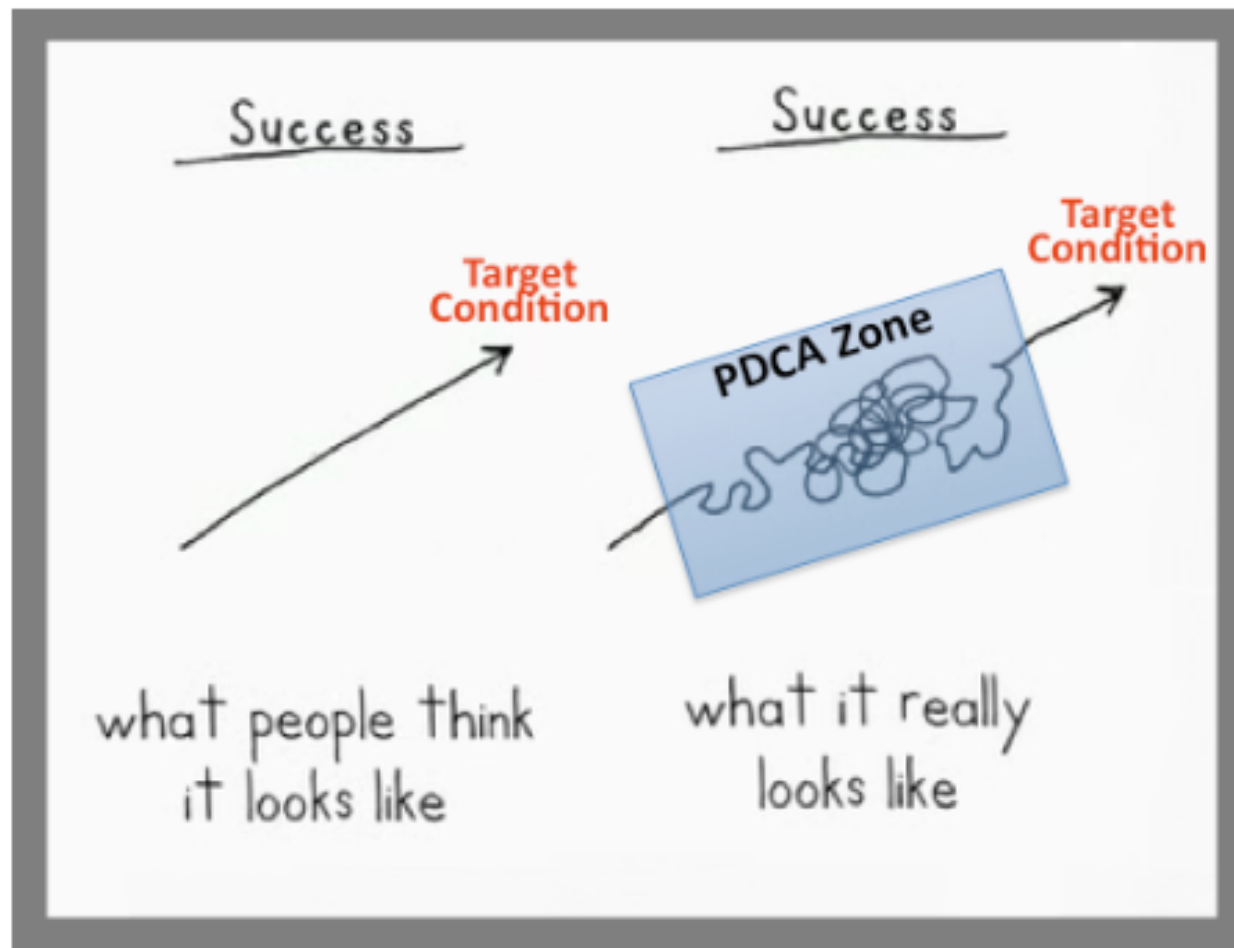
CONDUCT EACH EXPERIMENT AS CHEAPLY AND QUICKLY AS POSSIBLE

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



DON'T EXPECT EVERY STEP TO BRING A MEASUREABLE 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.



Cartoon by
Demetri Martin

How to Process the Results of an Experiment

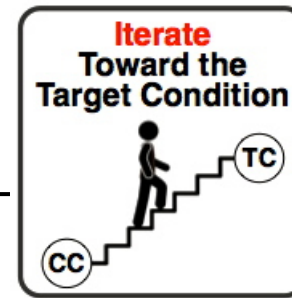
Instructions for the Learner

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)**.

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
	A	B	C
	D		

Prediction Side
Evidence Side

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

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

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



EXECUTING-PHASE COACHING CYCLES

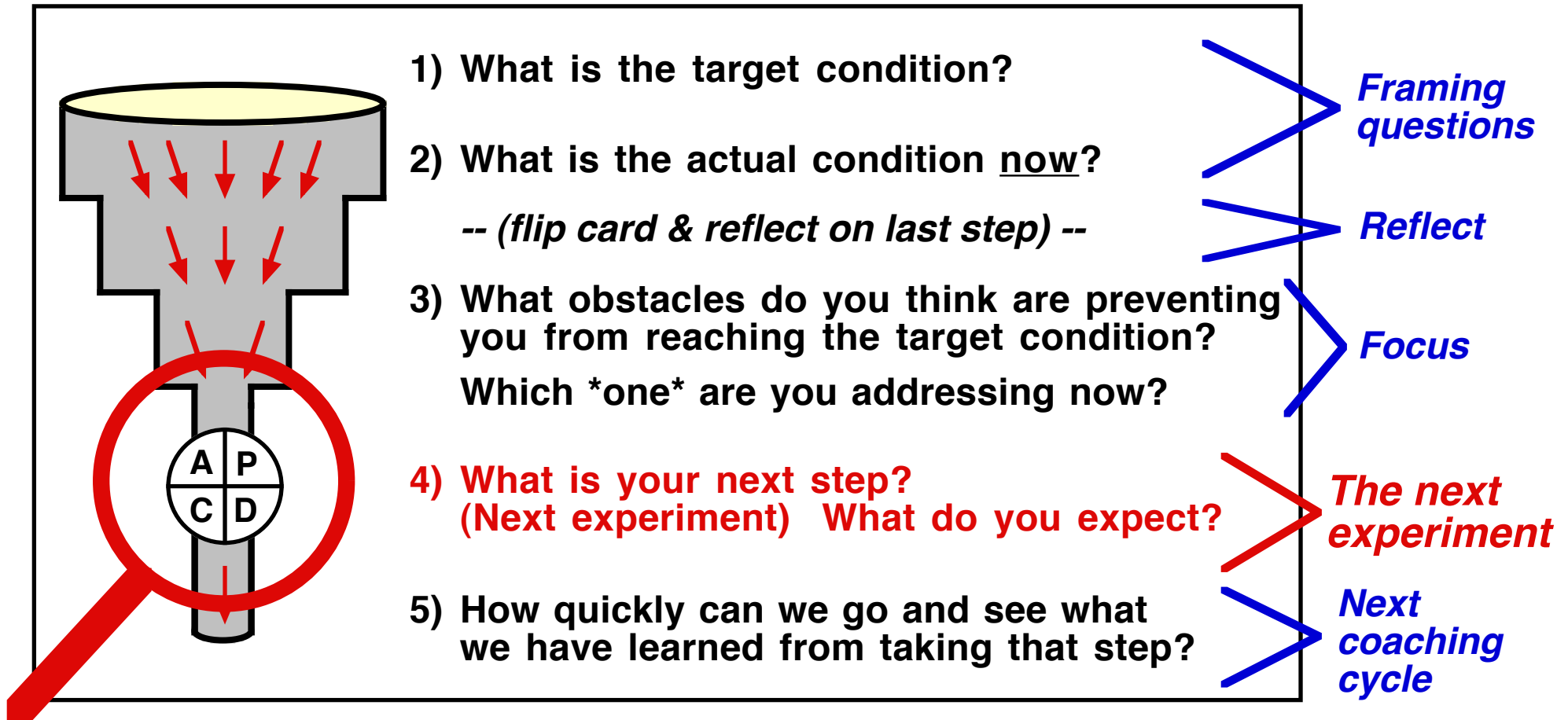
What the Learner should do in response to the Five Questions

<i>Coach's Question:</i>		
0	What is the challenge?	Learner explains what s/he understands the overarching challenge to be, which comes from the level above the Learner.
1	What is the target condition?	Learner reads through the description of the target condition that's on the storyboard, pointing to the items as s/he reads.
2	What is the actual condition now?	The Learner reads through the facts, data and diagrams on the storyboard that describe the current condition as it is <u>now</u> (not the initial current condition). The Learner should point as s/he reads.
REFLECTION	What did you plan as your last step?	Learner reads the first box on the PDCA Cycles Record.
	What did you expect?	Learner reads the second box on the PDCA Cycles Record.
	What actually happened?	Learner reads the third box on the PDCA Cycles Record.
	What did you learn?	Learner reads the fourth box on the PDCA Cycles Record.
3	What obstacles do you think are preventing you from reaching the target condition? Which *one* are you addressing now?	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.
4	What is your next step? (next experiment) What do you expect?	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.
5	How quickly can we go and see what we have learned from taking that step?	Learner proposes date & time for the next coaching cycle. Ensure that the Learner is doing the experiment as soon, quickly & cheaply as possible. Agree on facts & data to bring to next coaching cycle.

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

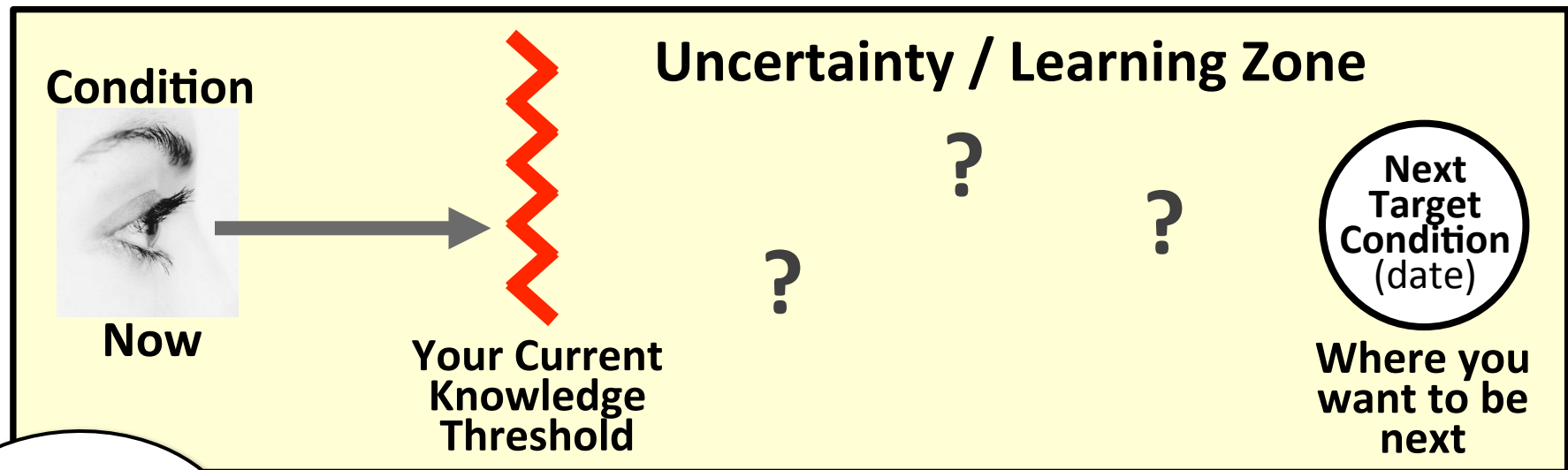


Note that a coaching cycle is about reflecting on the last experiment and looking ahead to the next one. Problems don't get solved in coaching cycles. That happens through the Learner's experiments.

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?"*

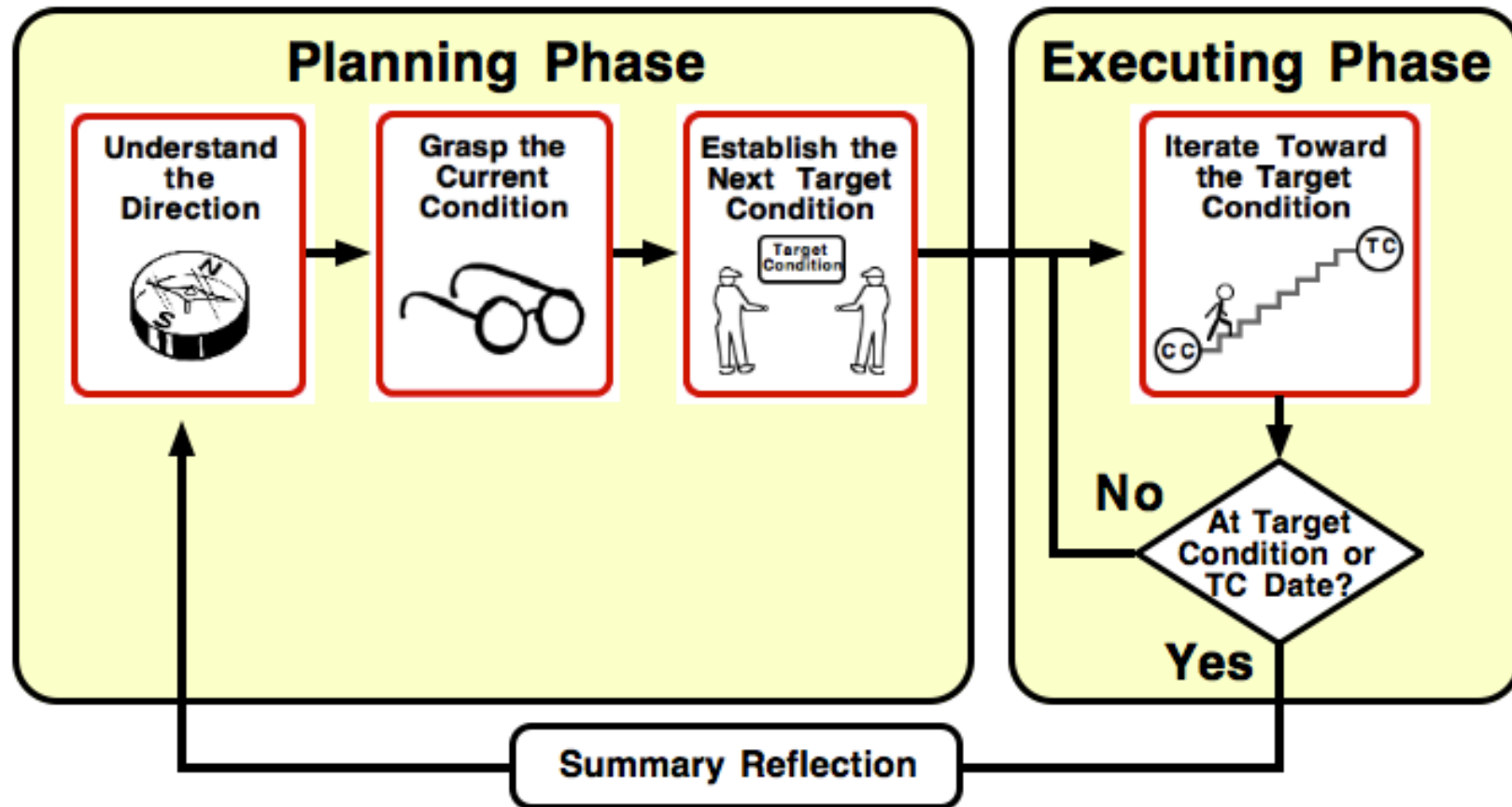
WATCH AN **EXECUTING-PHASE** COACHING CYCLE AT THE FOLLOWING LINK

<https://www.youtube.com/watch?v=ySdYX4cNP5Q>

HOW TO:
Coaching
Cycles



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.

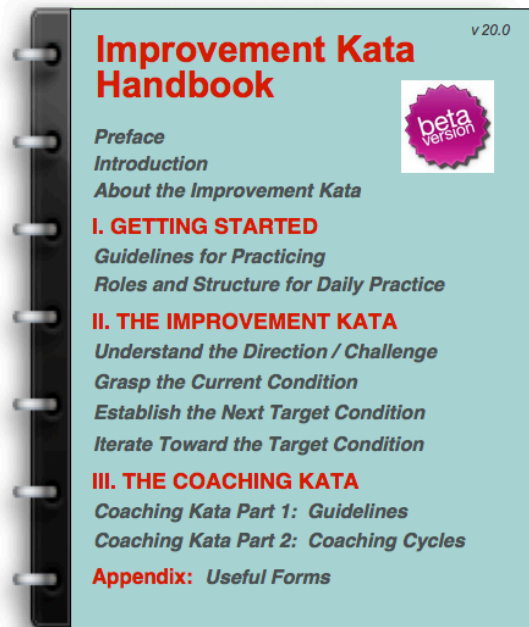
IF YOU WANT MORE DETAIL:

On the "*Toyota Kata Website*"

TOYOTA KATA HOME	1. Improvement Kata	2. Coaching Kata	3. Kata Creates Culture	4. Neuroscience	5. Getting Started	6. Challenge
	Materials to Download	News and Links	Presentations	Value Stream Mapping	Extras	What is a Kata?



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