Improvement Kata Fast Start
Striving and Achieving Challenges

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The Point of Today
1. Provide a compressed experience in the IK/CK
2. To get you thinking about your improvement method
3. Compare IK/CK approach to your current way of working

REMEMBER – This is a very brief introduction to the Kata approach
The idea is to learn by doing, experimenting in a safe environment.
Some Ingredients for Skill Building from Brain Science:

- **STARTER KATA**
  - Structured routines for beginners to practice fundamentals

- **COACHING**
  - Corrective feedback to ensure the Learner practices the right patterns

- **FREQUENT PRACTICE**
  - A little every day

- **MASTERY**
  - Growing self efficacy, "I'm getting better at this"

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**FOCUSING ON HOW PEOPLE WORK**

- The Improvement Kata / Coaching Kata are a **repeatable management model** to produce continuous improvement, adaptation & innovation.

- The Learner iterates his way forward, instead of "deciding" the way forward. It's the **action of innovation**.

- You're equipping people with a pattern and mindset that's not solution oriented but **discovery oriented**. By teaching the Improvement Kata & Coaching Kata patterns you build an organization that can successfully deal with challenges and uncertainty.
THE FOUR STEPS OF
THE IMPROVEMENT KATA APPROACH

1. Get the Direction or Challenge
2. Grasp the Current Condition
3. Establish your Next Target Condition
4. Conduct Experiments to get there

For this exercise we'll build this 15-piece puzzle several times, and experiment with ways to do it faster
Go ahead and build the puzzle one time!

- Take the puzzle out of the bag and study the picture.
- Remove the puzzle pieces from the frame.
- Put the frame back in the bag.
- Build the puzzle once, without timing it.

THREE THINGS TO DO NEXT:

Choose a Team Name
- All team members should participate

Select a Data Recorder
- Write your team name on the forms in the kit

Select a Timekeeper
- Get your stopwatch app ready
LETS PRACTICE:

- We will run three rounds of practice
- Track time on your Baseline Rounds sheet

MAKE IMPROVEMENTS:

- Between rounds A, B and C please discuss improvement options as a team
- Choose as many improvements as you want to make each round
- After each round, document your build time on the Baseline Rounds sheet
- After round C, write down how you built the puzzle, i.e. Who did what task, in what order (use Steps/Sequence form)
TODAY'S GROUND RULES

(1) "START Position" =
- Puzzle pieces shuffled in random order
- Pieces face down in one stack
- Hands flat on the table
- No talking, you're ready to go

(2) All Teams Start Together
   a. Instructor calls "START"
   b. Build the puzzle (talking allowed)
   c. Note the elapsed time on your form

(3) Don't Write on the Puzzle

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Key Points About: UNDERSTANDING THE CHALLENGE

• We often face challenges in life. No need to worry, because you don't need to get all the way there right away!

• A challenge often even gives us a useful sense of direction.

Step 1: Direction / Challenge

THE PURPOSE OF THE IMPROVEMENT KATA IS TO HAVE A SYSTEMATIC WAY TO STRIVE FOR AND MEET CHALLENGES

What breakthrough challenge are you trying to meet?

Use Concrete Metrics to Describe

Having an overall challenge is important, so individual process target conditions are connected and meaningful. It's difficult for people to get engaged by something that doesn't have a purpose.
Step 1: Direction / Challenge

• Define and document the overarching Challenge
  – Start with the business objectives
    • How and where does your department affect those objectives?
  – Define and document the Challenge for your department to strive toward

Fill-in Your Storyboard

Team Name:

Focus Process:  Challenge:

Target Condition
  Achieve by: ______

Current Condition

PDCA Cycles
  Record

Obstacles
  Parking Lot
Step 2:
GRASP THE CURRENT CONDITION

What was your team's last baseline time?

Key Points About:
GRASPING THE CURRENT CONDITION

- It's important to understand where you currently are, before you set your next goal.
- Don't pull goals randomly out of the air. A team should feel like its goals are meaningful.
First = Understand Pace Time Requirements

**TAKT TIME**

Net Available Time
Amount of time available in a defined period minus any scheduled breaks, meetings, or other planned downtime

Demand
What the customer wants in the same defined period of time

Planned Cycle Time
85% of Takt Time (creates a buffer for unplanned variables)
Example: Takt Time = 24780 seconds/300 scopes = 83 seconds
Planned Cycle Time = 83 seconds x 0.85 = 71 seconds

*Note*: In cases when you can't calculate a takt time you can still set a Planned Cycle. Simply ask yourself:

“How often do we want this task to be happening?”

This pace number can be good enough for starting.

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Second = Document the Current Process

- Get to know the process by sketching it
  - Where does WIP accumulate?
  - Define the start & end points of the process.
  - What are batch sizes at the processing steps?

- Note other details about the current operating pattern
  - These are not issues good or bad.
  - Simply describe aspects of the current work pattern.
Third = Exit Cyles

Example of exit cycle

Capturing exit cycles shows us the stability or instability of a process

LET'S DOCUMENT CURRENT CONDITION

- Take 10 minutes and update your storyboard
- Document the operating pattern from round C
- Note the elapsed time as your pace

Current Condition

- Pace = 42 sec
- Everyone flips pieces
- Assemble in the rear
- Op 4 quit working = too crazy

Record your pace times here

Graph your pace times here
Post Your Forms Under Current Condition

Step 3:
ESTABLISH YOUR NEXT TARGET CONDITION

Get the Direction or Challenge

What operating pattern and puzzle build time does your team want to reach in this class period?
Step 3: Set the Next Target Condition

There will be several target conditions on the way to the challenge.
The exact series of target conditions required to meet the overarching challenge can't be defined in advance.

When you reach one target condition, you'll know a lot more about what the next target condition needs to be.

STEP 3 – SET TARGET CONDITION

- Describes a desired future state
- It is a description of where we would like to be, NOT how we are going to get there
- Once you achieve your Target Condition then it becomes your new Current Condition
KEY POINTS ABOUT SETTING YOUR NEXT TARGET CONDITION:

THE DIFFERENCE BETWEEN “TARGET CONDITION” AND “SOLUTIONS”

TARGET CONDITION
A description and specification of a desired new operating pattern, performance attributes, characteristics, or functionality you want a process or system to have on a future date.

PLAN
A prediction of the steps that will be required to achieve the Target Condition. (Every plan is only a theory)

SOLUTIONS
These are the actual steps, techniques and countermeasures that you learn are necessary for achieving the Target Condition in reality.

The exact path that gets you to the Target Condition will only be known in hindsight.

Key Points About:
ESTABLISHING YOUR NEXT TARGET CONDITION

• Break a big challenge down into smaller goals.

• Set an easier and closer goal that's on the way to your challenge. When you get there you can set the next goal.

• Your team will have to experiment!

• We don’t change our target condition, but we can add to it.

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LET'S DEFINE YOUR TEAM'S NEXT TARGET CONDITION

We can do five (5) rounds of experimenting today

Get the Direction or Challenge

Estabish your Next Target Condition

Conduct Experiments to get there

Grasp the Current Condition

What operating pattern and puzzle build time does your team want to reach in this class period?

STEP 3 – Document your Target Condition

By When: After 5 rounds of experiments

• Take 10 minutes and create your target condition by end of class today

• Document the new operating pattern
  • Note the pace time you are striving for

Note: No practice building the puzzle to create the target condition.

Remember, we don’t know HOW we are going to achieve it. The target describes how we NEED to operate working towards the challenge!
DRAW YOUR **TARGET CONDITION LINE** ON THE ‘CURRENT CONDITION' FORM

Obstacles prevent us from achieving our target condition.

Overcoming obstacles means developing solutions to problems.

Obstacles are an opportunity to learn and make improvements.
Brainstorm Obstacles & Post

What perceived obstacles are preventing you from achieving your target condition?
Based on your previous practice rounds

5 Minutes!

Perceived Obstacles

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Post Your Forms on the Story Board
Step 4: Conduct Experiments to Get There

Grasp the Current Condition

Establish your Next Target Condition

Get the Direction or Challenge

Conduct Experiments to get there

Step 4: Iterate toward Target Condition

EACH STEP YOU TAKE = A PDCA CYCLE

Current Condition

Target Condition

For each step:
- Define what you expect to happen
- Define what you will measure
- Observe what actually happens
- Reflect and adjust accordingly

A PDCA cycle may take only minutes. Suppose we decide, in pursuit of a target condition, to move some work elements from one operator to another. We take that step, observe that the outcome is not what we expected, but then recognize something else that could generate the desired effect. That was a PDCA cycle.
Key Points About: EXPERIMENTING TO GET THERE

• You never know in advance exactly how you will achieve a goal.

• We need to test the ideas we have. A good way to reach a goal is to experiment rapidly. Try something, see what happens, and then adjust based on what you learn.

• To learn from an experiment you should write down what you expect and what actually happens, so you can compare those two things.

PDCA

• Guidelines:
  • Identify obstacles found through experiments
    • Select one to work on
      • Avoid ‘swallowing the elephant’ or multi-variable experiments
  • Initiate the PDCA Cycle Records (a form of Action Plan that demonstrates ‘linkage’)
  • Be Specific about your step

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Step 4: Iterate toward Target Condition

Strive for Single Factor Experiments

Planning your next Experiment

Before each round, fill in your PDCA Record

1. Take 5 minutes to write your first step and expectation
Post Your Forms on the Story Board

**Focus Process:**

**Challenge:**

**Target Condition**
Achieve by:

**Current Condition**

Perceived Obstacles

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How We’ll Experiment

5 Minutes per Round

For Three Rounds:

Instructor calls "START"
Build the puzzle
Note the elapsed time on your form

Discussion:
Discuss what happened
Discuss what you learned
Discuss what you plan to do next (Single Factor)
Write ideas you want to test onto the form

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After Round Three – update your “Current Condition” Graph and Pattern of Work.

How to do a Coaching Session

Some Ingredients for Skill Building from Brain Science:

- **STARTER KATA**
  - Structured routines for beginners to practice fundamentals
- **COACHING**
  - Corrective feedback to ensure the learner practices the right patterns
- **FREQUENT PRACTICE**
  - A little every day
- **MASTERY**
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(1) THE FIVE-QUESTION CARD FOR THE COACH
Available as a free download on the Toyota Kata Website

The Five Questions
1) What is the Target Condition?
2) What is the Actual Condition now?
3) What Challenges do you think are preventing you from reaching the target condition?
Which "me" are you addressing now?
4) What is your Next Step? (next PDCA / experiment) What do you expect?
5) When can we go and see what we Have Learned from taking that step?
*Will then set up the same cycle for the next PDCA cycle

Back of card - Reflection Section

Reflect on the Last Step Taken
Because you don't actually know what the result of a step will be:
1) What was your Last Step?
2) What did you Expect?
3) What Actually Happened?
4) What did you Learn?

ASK THE 5 TK QUESTIONS AT EACH STEP THE LEARNER TAKES
DO COACHING CYCLES AT THE LEARNER’S STORYBOARD
And as close to the focus process as possible

Instructor calls "START"
Build the puzzle
Note the elapsed time & data on your forms

Discuss what happened
Discuss what you learned
Discuss what you plan to do next
Write ideas you want to test onto the form

Time's up... Ask the 5 Coaching Questions
Get into START Position (timekeeper raise hand)
Implementation Guidelines

1. Stick to the pattern – slower is faster
   1. Be deliberate

2. It takes a Coach & a Learner to Practice
   1. Coach uses 5Q routine
   2. Learner works with team to apply improvement kata

3. Practice Coaching Cycles Every Day
   1. Do at the beginning of the day if possible

DELIBERATE versus AUTOMATIC TEACHING

Here the manager is a coach who deliberately teaches a new way
Practicing specific new behaviors Affects Team or Organizational Culture
Routines Habits Rituals Norms

Here the manager automatically teaches the prevailing culture
Teaches Mindset and behavior

KATA is Used Here

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The Point of Today
1. To expose you to the TK Routines
2. To get you thinking about your improvement method
3. Compare TK approach to your current way of working

REFLECTION – WHAT DID YOU LEARN TODAY?