

BREAKOUT SESSION #3

What makes for a really **good**
experiment with practice using
PDCA form?

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	Conduct the Experiment	What happened	What we learned

“THE FORMAT ENSURES THAT WE ARE BITING OFF THE RIGHT AMOUNT OF DAILY LEARNING & THE NEXT STEPS ARE APPROPRIATE!”

SESSION #3 AGENDA

Start Time	Topic	Outcome	Method	Facilitator
10:42	Facilitator Introductions	Who we are	Verbal	Amy/Mike/Paige
10:44	Session Outline	3 Expectations Clarified	Verbal	Mike
10:45	Brainstorm Scientific Behaviors list	List to take home	Flip Chart/ Handout	Mike
10:55	Critique Sheet for PDCA cycle record	Reviewed Document	Checklist handout	Amy
11:00	Divide breakout into 3 groups [Mfg/ Service/ Healthcare]	3 groups; Assign task	Verbal	Amy
11:02	Manufacturing/ Healthcare/Service Examples Reviewed	Re-written PDCA cycle record	PDCA record	Mike/Amy/Paige
11:20	Report-out and Share	List of common Errors	Verbal/Flip Chart	Paige
11:28	Dismiss to main area	Return to	Verbal	Mike

Behaviors that Demonstrate Scientific Thinking – A Starter List

Document the results of the tests

Display & Share one's thinking

Be a Learner (Read, Watch, Practice, **Have a Coach, Be a Coach**)

Directly **Observe** the Work

Be Willing to Experiment

Failure is OK

Have a **positive attitude** about obstacles

Be Willing to say **"I Don't Know"**

Share benefits to others



Brainstormed List of Scientific Behaviors

- Prediction
- Standard work
- Feedback
- Use of data/Measurements
- Multiple iterations
- Root Cause
- Learnings
- Language
- Variation/Understanding
- Proof
- Recognizing knowledge threshold
- Making things visual
- Willingness to try
- Hypothesis
- Comfortable being wrong
- Go and see
- Leave with questions
- Comfort bringing problems forward
- Systems thinking
- Coaching providing procedural guidance

Checklist for Conducting an Experiment

Items	Y	N
• Did you conduct experiment against an obstacle to the Target Condition?	Y	N
• Did you identify your current Threshold of Knowledge and conduct the next experiment there.	Y	N
• Can you do a single-factor experiment, where only one thing is changed?	Y	N
• Can you test your prediction as soon and quickly as possible?	Y	N
• Make sure that failure won't harm anyone or anything. If necessary build up a buffer before conducting the experiment or conduct the experiment offline in a simulation.	Y	N
• Did you write onto the PDCA Cycles Record what you expect to happen (your prediction) before you do the experiment?	Y	N
• Did you measure it? The experiment must be measureable in some way, so you can determine if the prediction was confirmed or refuted.	Y	N
• If possible the experiment should build on what was learned in your previous experiment.	Y	N
• In order to learn from your experiment you must be open to and willing to see that the result may not conform to your expectation. Own it!	Y	N



**HEALTHCARE
EXAMPLE**

KATA PDCA CYCLES RECORD (each row = one experiment)



Date: 3/1/17

Process: RN assignment for new clients

Obstacle: Scheduler accuracy with RN assignment for new clients is low. Requires more RN Manager time than available to assist.

Process Metric: % correct assignments

Learner: Julie

Coach: Gwen

What is your next step?

What do you expect?

What happened?

What did you learn?

By 3/15, observe Kim as she determines RN assignments for new clients.

To “go and see” and understand the current condition more fully

Observed Kim making assignments.

She was using an outdated facility assignment list.

3 out of 4 RN assignments made correctly

She missed Step #2 in the assignment process (check territories). This resulted in an incorrect RN assignment.

Coaching Cycle
Experiment

By 3/17, observe Kim again

See above

Observed Kim.

Kim missed Step #2 again. She seems to incorrectly assign RNs when the client lives in a densely populated area. I reminded her of the importance of following the steps.

1 out of 3 assignments made correctly.

By 3/18, observe Kim again

See above

Repeated observation steps when there are opportunities for experimentation based on what has been learned so far

Steps and expectations aren't written out in a way that allows the Learner to read directly from the board

KATA PDCA CYCLES RECORD (each row = one experiment)



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Process Metric: % correct assignments

Learner: Julie

Coach: Gwen

What is your next step?

What do you expect?

What happened?

What did you learn?

By 3/19, use new drawing to make the assignment process visual

That this will help Kim make more accurate assignments in densely populated areas

Kim made more accurate assignments

The new drawing helped!

How much more accurate? Quantify your prediction.

No process metric provided.

Coaching Cycle
Experiment

KATA PDCA CYCLES RECORD (each row = one experiment)

Date: 3/1/17		Process: RN assignment for new clients			
Obstacle: Scheduler accuracy with RN assignment for new clients is low (<50%). Requires more RN Manager time than available to assist.		Process Metric: % correct assignments (goal=80%)			
		Learner: Julie		Coach: Gwen	
What is your next step?	What do you expect?	Coaching Cycle	Experiment	What happened?	What did you learn?
By 3/15, observe Kim as she determines RN assignments for new clients.	To “go and see” and understand the current condition more fully			Observed Kim making assignments. 75% of RN assignments made correctly (3 out of 4)	Kim was using an outdated facility assignment list. She missed Step #2 in the assignment process (check territories). This resulted in an incorrect RN assignment.
By 3/17, create and get feedback from Kim on a visual decision-making tool that will allow Kim to better explain her thinking to me at our huddle	That I can make a tool that visually explains the decision-making points for making RN assignments. That Kim will understand how to use the tool.			Created a rough visual tool during my huddle with Kim. Explained to Kim how I would like her to use it.	That a quick sketch of the tool will help us get started. It doesn’t have to be perfect to be helpful.
By 3/18, Kim will use the new visual tool when making assignments. I will observe her process.	That RN assignment accuracy will increase to 80% <div style="background-color: #1a3d4d; color: white; padding: 5px; text-align: center; margin-top: 10px;">Improved Version</div>			100% of assignments made correctly (4 out of 4) 2 times, Kim completed all 4 steps when she only needed to complete the 1st step to make the assignment.	The visual tool helped clarify the decision-making steps. It was a good way for me to gain insight into Kim’s thought process. The tool doesn’t include visual cues that signal when enough info is known to make the assignment.



**MANUFACTURING
EXAMPLE**

KATA PDCA CYCLES RECORD (each row = one experiment)

Date: 3/24/17

Process: Bottle Filler

Obstacle: We don't know why we have bottles being rejected.

Process Metric: Units/Min and DPMO

Learner: Jerry

Coach: Clint

What is your next step?

What do you expect?

What happened?

What did you learn?

Meet with operators to discuss reasons why bottles rejection occurs.

Get a better understanding of what is causing to have defects on the

Met with 1st shift employee. He was new and didn't notice the problems when he was at his station.

Bottle filler person isn't always available to troubleshoot

Coaching Cycle

Experiment

Talk with Trainer and review materials for Bottle filler position

Gaps in expectations of role

Direct observation with no measurable outcomes observed.

See above



**SERVICE IT
EXAMPLE**

KATA PDCA CYCLES RECORD (each row = one experiment)

Date: 3/1/17		Process: IT Help Desk Call Center			
Obstacle: Information Technology's Help Desk first time call resolution counts under 20%. Target is 80%		Process Metric: First Time Call Resolution			
		Learner: Joe		Coach: Dominic	
What is your next step?	What do you expect?	Coaching Cycle Experiment	Experiment	What happened?	What did you learn?
Observe Information Technology Help Desk Call Center technicians on Wednesday or Friday.	New topics to re-train technicians to meet the target.			In 60 minutes, I monitored data from 1 technician who conducted 50 calls in total. 0 issues were resolved during the call.	Technician thought that all calls were monitored for call time speed.
Vague experiment dates. Also – too much time in between each experiment.				The Supervisor held a meeting with his team to define first time call resolution.	The team of technicians did not have any questions and seemed to understand the metric definition.
Meet with Information Technology Help Desk Call Center Supervisor soon.	The Supervisor will better define first time call resolution to his entire team.			First time call resolution counts still under 20%	The call center system did not contain job aids or troubleshooting guides to help technicians with issue resolution.
Observe Call Center Technician in 6 months.	Technician and team will exceed the 80% first time call resolution target.			First time call resolution counts still under 20%	The team did not have enough time to practice and master.
Complete all call center job aids and technician training by next week.	Store job aids in a folder within the call center system. All technicians to achieve 50% call resolution.				

Team Evaluation

Good

- Collecting more info and data may be needed to ensure learning
- Include Data
- Define what to expect
- Deeper analysis of process
- Reasonable target condition
- Focus on obstacle next step needs to have clear action
- Snake back
- Gap between expectation and what happened
- Specific expectations (more to “observe”)
- Measurable!

Poor

- Poor analysis of Check
- Separate obstacles and current condition
- Don't wait months to experiment
- Lack of leading questions from the coach

TODAY'S TAKEAWAYS

1.

Use the handouts to make a **good PDCA record**

2.

Design each experiment to overcome obstacles not to reach the target condition.

3.

Embrace scientific thinking!



**WE'VE ALWAYS DONE IT
THIS WAY**

THE SIX
MOST EXPENSIVE
WORDS IN BUSINESS

references.

MIKE ROTHER TOYOTA KATA HANDBOOK

BETH CARRINGTON  KATA Matters

The logo for 'KATA Matters' features the text 'KATA Matters' in a grey sans-serif font. Below the text is a horizontal grey line with three colored dots: a grey dot on the left, an orange dot in the middle, and a yellow dot on the right.

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