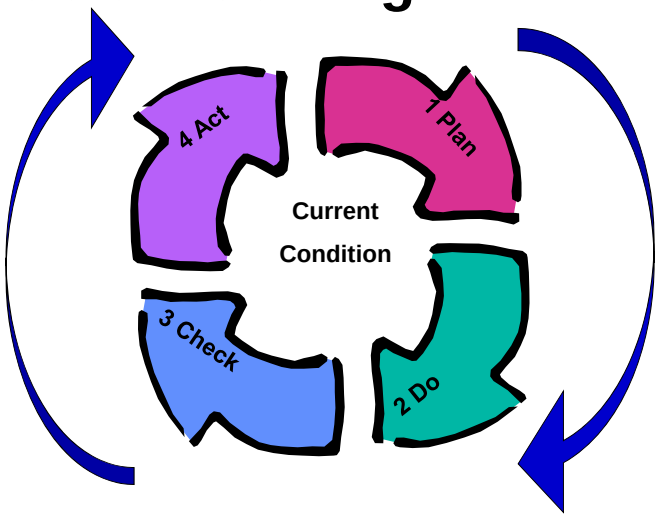
Coaching for PDCA Learning at Herman Miller

Missy Adams, Operations Work Team Leader

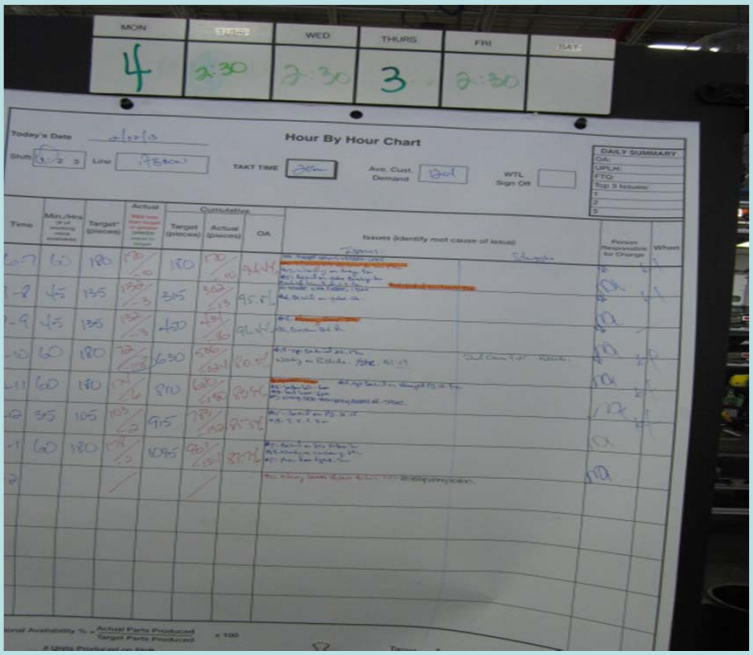
Problem Solving with PDCA

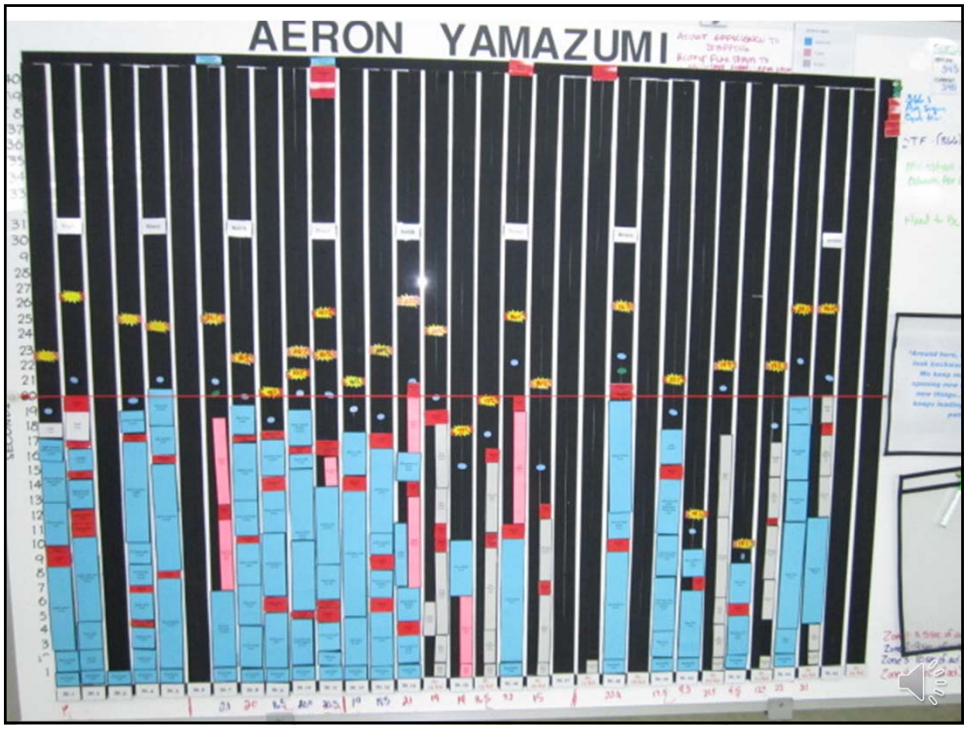


Lean Transformation Summit 2013
March 13-14 | Orlando, FL

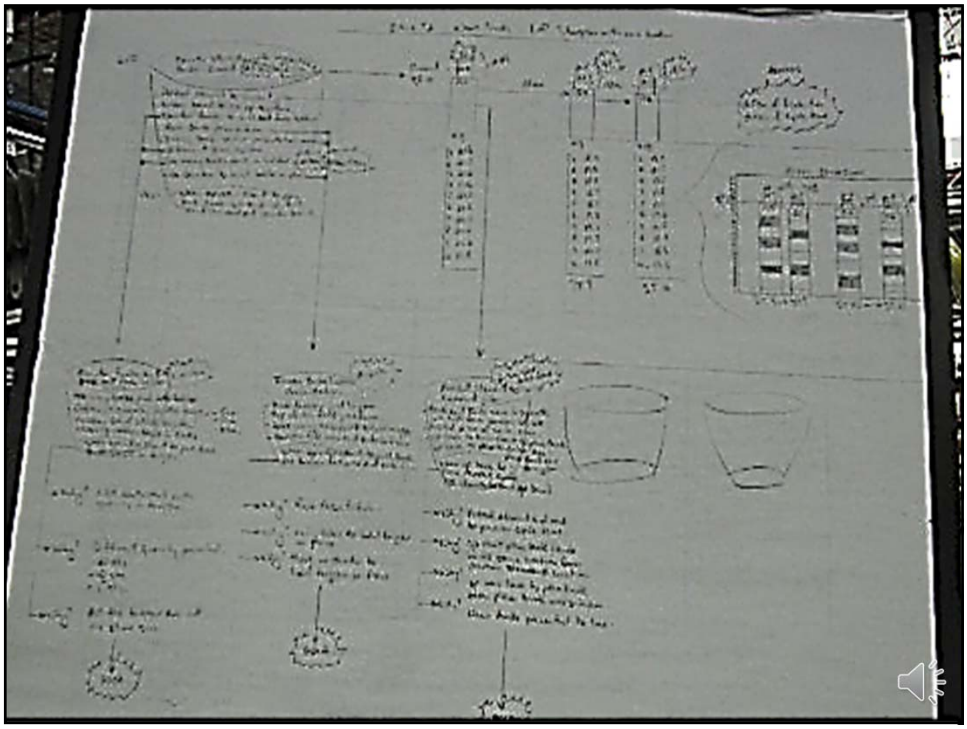
3 Key Points

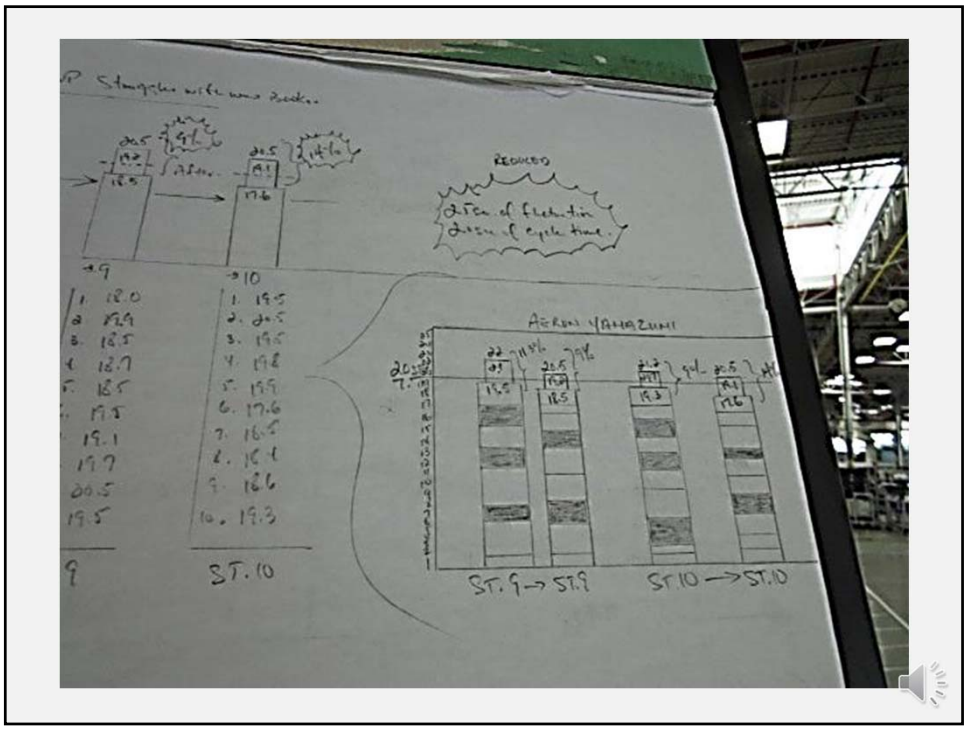
- What tools do we use to see problems?




AERON YAMAZUMI

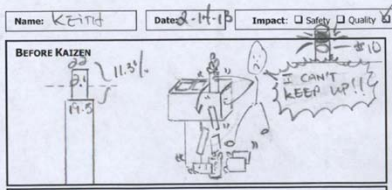

FACILITATOR WEEKLY PLAN



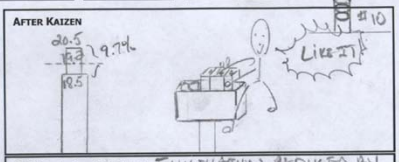


Name: KEITH | Date: 4-14-13 | Impact: ☐ Safety ☐ Quality ☑ Productivity ☐ 5S | Line: AERON | Theme: FLUCTUATION

BEFORE KAIZEN



AFTER KAIZEN



CURRENT CONDITION

Facts (Symptoms): IN ST. 10 THE BOOK HOLDER FALLS WHILE GRABBING BOOK OUT. SEVEN OUT OF TEN TIMES BECAUSE OF THE HOLDER IS NOT SECURE

Problem: THE BOOK HOLDER FALLS

Cause: THE BOOK HOLDER IS NOT SECURED.

Measurable Target: REDUCE 5.5 SEC OF FLUCTUATION

Involvement: Employees involved: TONY & MEGHAN

Ideas / Input: TAKE BOOKS OUT OF HOLDER. PUT FEW BOOKS IN HOLDER.

PLAN *Hypothesis (If I do this, then that will happen):*

If I SECURE THE HOLDER

Then, IT WONT FALL

Countermeasure: SECURE CONTAINER

Predicted Measurable result: REDUCE 2.5 SEC OF FLUCTUATION

How Testing: HOLD CONTAINER FOR OPERATOR, TEST IT FOR 10 CYCLES

DO Results from Test (facts): FLUCTUATIONS REDUCED BY 2.5 SEC, CYCLE TIME REDUCED BY 2 SEC ST. 10 THE CONTAINER NEVER FELL WHILE PULLING BOOK.

☑ See back or attachments

Involvement: Employees: _____

Feedback: TONY'S MEGHAN - LIKE IT

CHECK: Did Test results confirm hypothesis? NO (YES)

New Problems created: NONE

Impact on Current Problem: ELIMINATED TRIGGER FROM FALLING.

ACT

Hypothesis Failed ... starting again:

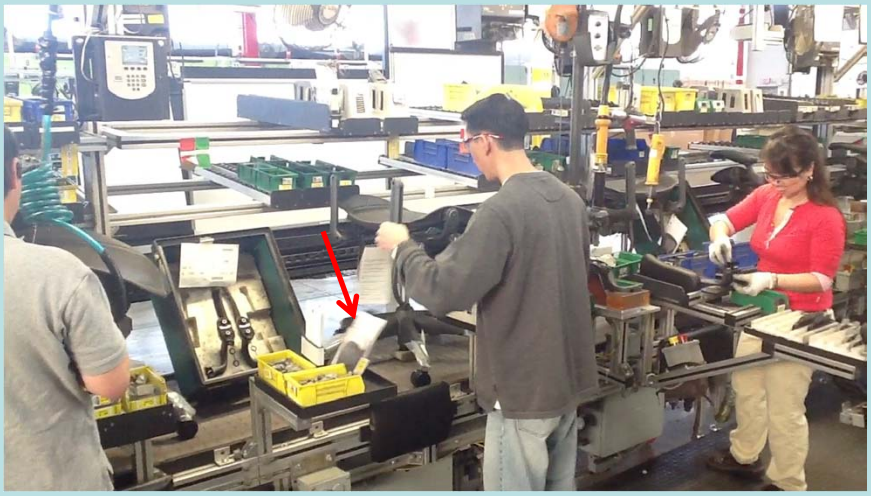
1) Learning: _____

2) Go back to **PLAN**

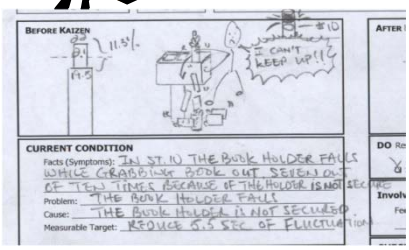
Hypothesis Confirmed ... moving ahead:

1) Steps taken to Standardize and Communicate: CREATE A MORE PERMANENT HOLDER TO TEST

2) Steps taken to spread ideas to other areas: PLACE ON FMDS, TALKED ABOUT IT IN FMDS REPORT



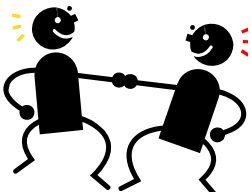
Current Condition



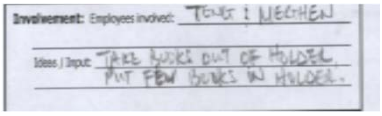
- Investigate and document the facts (what symptoms do you see?)
- What is the problem ?
  - You MUST SEE the problem happen with your own eyes before using PDCA
- Set a measurable target
  - How do you MEASURE the problem to analyze impact of changes?
  - MEASURE current condition
  - Set a TARGET

Document as you go!

Employee Involvement

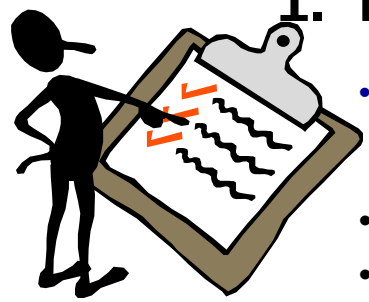


- Employee involved
  - How do they feel?
  - Do they have facts that you may not?
  - Are they following Std. Wk. and/or JI?
    - If not, why?
- Who did you involve?
  - Important to go back to them later.
  - Creates willingness to be engaged again.
  - Validates their input.

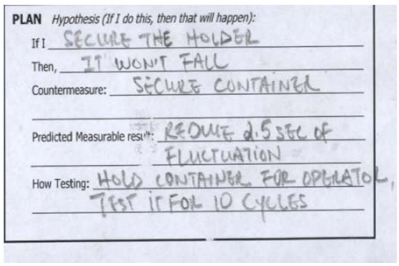


Great Coaching moments!

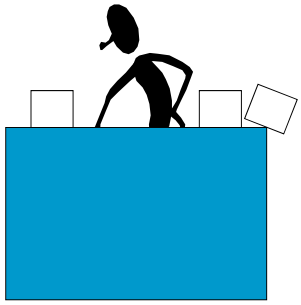
1. Plan



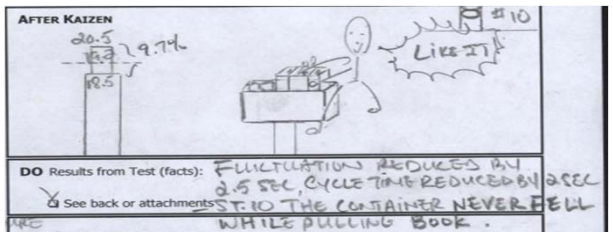
- Form a cause/effect hypothesis
  - "**If** I do this, **then** that will happen"
  - **Vague**, do not need to be specific
- Brainstorm countermeasures
- Choose a countermeasure based on the idea of "Simple, quick and inexpensive"
- Be specific
- Simple, Quick plan to test
  (cardboard, duct tape, etc.)
- Predicted Measurable Result
- What do I expect to see


PLAN *Hypothesis (If I do this, then that will happen):*
If I SECURE THE HOLDER
Then, IT WON'T FALL
Countermeasure: SECURE CONTAINER
Predicted Measurable result: REDUCE 2.5 SEC OF FLUCTUATION
How Testing: HOLD CONTAINER FOR OPERATOR, TEST IT FOR 10 CYCLES

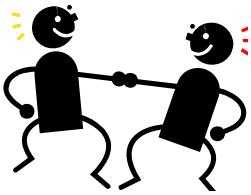
2. Do



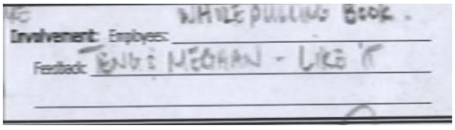
- Try your idea – learn by doing
- Document the results of your test
- Try the work yourself to see and feel the impact of your countermeasure


AFTER KAIZEN
20.5
19.74
18.5
#10
LIKE IT
DO Results from Test (facts): FLUCTUATION REDUCED BY 2.5 SEC, CYCLE TIME REDUCED BY 2 SEC
See back or attachments ST. IO THE CONTAINER NEVER FELL WHILE PULLING BOOK.

Employee Involvement



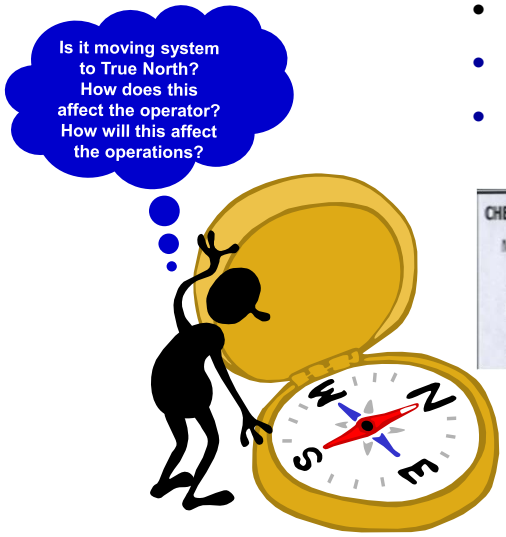
- Employee involved
  - How do they feel about the test?
  - Do they have facts that you may not?
- Who did you involve?
  - Don't forget to go back to those involoved the first time.
  - Creates willingness to be engaged again.
  - Validates their input.



Great Coaching moments!

3. Check

- Compare data
- Did the result = the plan?
- Create <u>new</u> problems?



CHECK: Did Test results confirm hypothesis? NO YES

New Problems created: NONE

Impact on Current Problem: ELIMINATED TRIGGER FROM FALLING.

4. Act – take action based on evaluation

New Standard

- Standardize
  - Updated standardized work.
  - Make change permanent.
- Communicate
  - Instruct team, practice with new condition
- Spread idea to other areas
  - Other applications **OR**
  - Start Over

ACT

Hypothesis <u>Failed</u> ... starting again:

1) Learning: _____

2) Go back to **PLAN**

Hypothesis <u>Confirmed</u> ... moving ahead:

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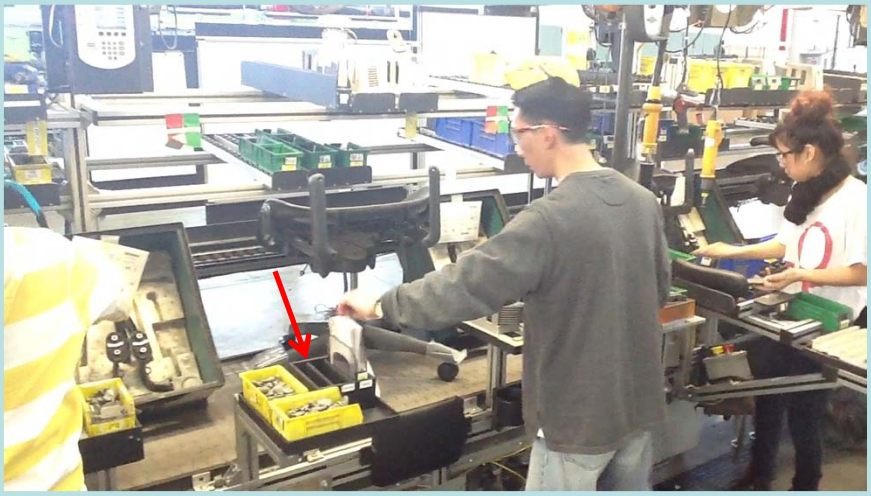
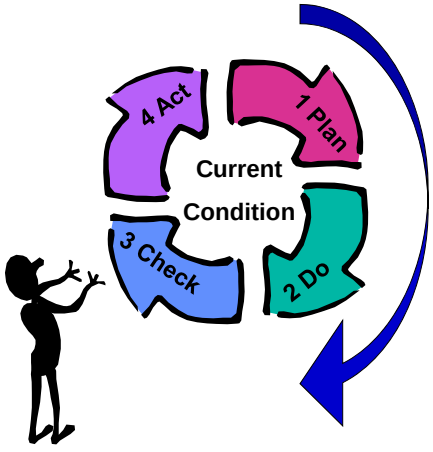


PDCA - The Kaizen Way



- ***Current Condition –*** grasp the problem and collect the facts
- ***Plan*** – choose a countermeasure
- ***Do*** – try your idea
- ***Check*** – evaluate your results
- ***Act*** – standardize and communicate

Goal: Scientific Approach = Sustained Improvement

3 Key Points

Employee Involvement	• Continued excitement with change • Part of it and not done to them • Ownership to problem , solution, and behaviors
Importance of measurements	• How do you know when you fixed the problem • What was the impact on the problem
Document as you go	• What did we do • Why did we do it • What did we learn from it • Helps to keep you on the right track

Reflection