

# **Toyota Kata Student Project**

**EXAMPLE PROJECT REPORT**  
for the students of  
**Bainbridge Graduate Institute**

**MGT 564 Sustainable Operations**  
**Bill Costantino**

**EXAMPLE**

# ALEX'S BUILDING WALKTHROUGH



**Step O – Context: provide a prosaic overview description of your process to help me (others) understand in a general way.**

# Context / Description

I am the resident manager of my 21-unit apartment building in Queen Anne, Seattle. As part of this position I am responsible for keeping the grounds (interior and exterior) in a visually respectable fashion, i.e., clean. This includes but is not limited to sweeping, taking out the garbage, trimming foliage, and raking.

I am supposed to do a 15-minute sweep of the grounds once every day, but have yet to accomplish this level of maintenance. At most I have done the sweep once a week, taking up to an hour to complete due to the build-up in litter. This is a very inefficient process at the moment, and I am often unhappy with the state of my building. I would like to get the building to a level of cleanliness where I am maintaining and improving the building, instead of catching up. Ultimately, I would like to do this process during the week so I can focus on other needs during the weekend.

The slides that follow will depict the current condition of my building walkthrough.

# STEPS OF THE TK PROCESS ANALYSIS

Keep  
this  
sheet  
handy

Step  
①

Assess customer demand and determine line pace

- Customer takt
- Planned cycle time

Step 1- How long should the  
walkthrough take?

15-20

minutes planned cycle time

Step

②

### First impressions of the process

- Get to know the process by sketching a block diagram of it.
- How much does process output fluctuate? (Time 20 output cycles)
- Is there a 1x1 flow?
- Other observations?

# Step 2- Block Diagram



## Step

②

### First impressions of the process

- Get to know the process by sketching a block diagram of it.
- How much does process output fluctuate? (Time 20 output cycles)
- Is there a 1x1 flow?
- Other observations?

# Step 2- Other Observations

- Putting off work
- Inefficient placement of tools
- Completed on weekends, not during the week
- Between 30-60 minutes to complete
- Focused on maintenance, not improving the building
- Not part of regular routine

Step

③

Is machine capacity sufficient?

- Can the equipment support the planned cycle time?
- What is current capacity?
- How many shifts?



No



Yes

## Step 3- Are any machines holding me back?

- At this point I don't use any machines throughout the whole process, but I can reach...
  - My cell phone
  - Exterior light timer
  - Locks on Door
- These are running smoothly, and rarely impact my process. I occasionally forget my keys.

Step 4

Is the process stable within desired limits?

- Time 20-40 full cycles of each operator's work
- Are each operator's work steps the same from cycle to cycle?

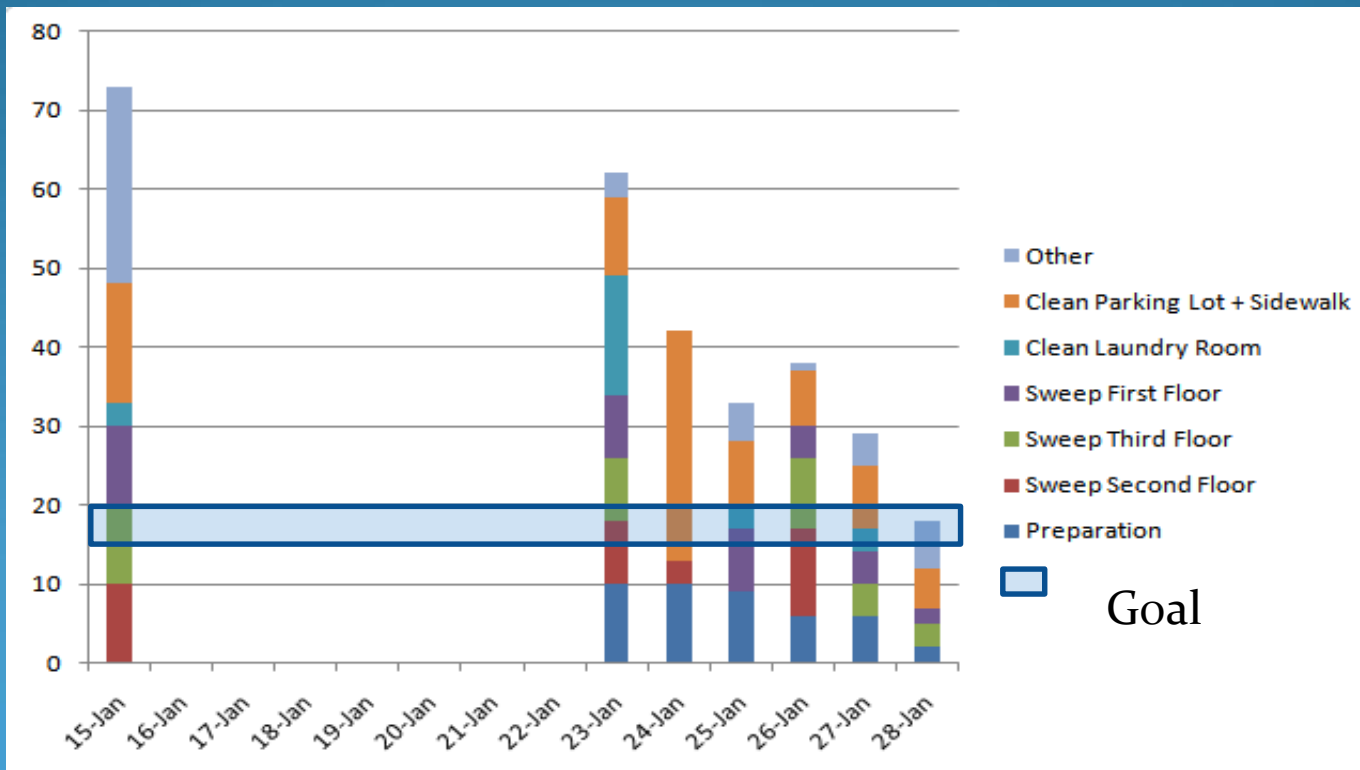


No



Yes

# Step 4- Is the process stable within the desired limit?



No.

Goal



Step  
⑤

What is the necessary number of operators if the process is stable?

- Calculate number of operators

# Step 5- What is the necessary number of operators?

# 1

Me

**Step 6, 1-Page Summary:** Key points captured in bullet form and Run Chart of current data vs. Target Line.

# Current Condition Summary

## Cycle Time

- Current ~60 minutes during weekend

## First Impressions

- Varied process-steps order
- Missing parts of process
- Process time slowly decreasing

## Machine Capacity

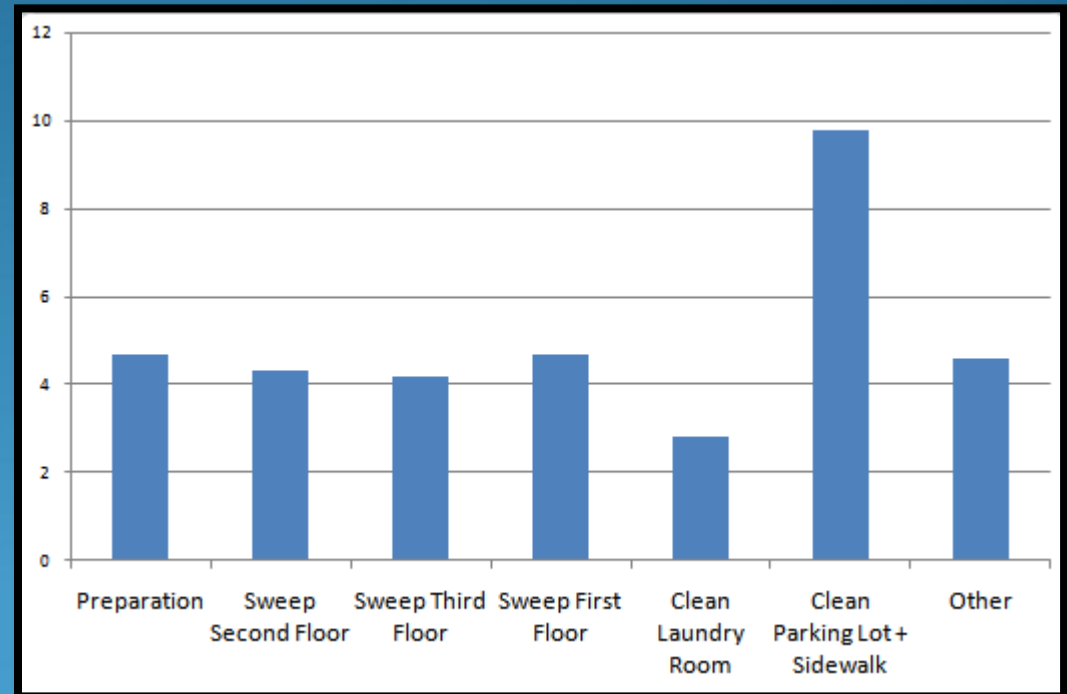
- Does not affect this process

## Process Stability

- Cycle varies

## Necessary # of Operators

- 1 operator



**Step 7, Target Condition:** Key points captured in bullet form.  
“Current Condition → Target Condition” format

## Project Focus: Building Maintenance

### Current Condition

- Cycle is variable: 10-60 minutes
- Planned cycle time = 15-20 mins
- 1 operator
- Embarrassed about condition of building
- Mostly focused on catching up  
1 Day/Week



### Target Condition

- Cycle is stable at 15-20 minutes
- Planned cycle time = 15-20 mins
- 1 operator
- Proud of condition of building
- Caught up, focused on improvements to building 5 days/week.  
• Focus more on administrative role (communication with tenants, bills)

**What aspect of this target condition do you want to strive for first?**

Stable cycle time of 15-20 minutes

**Step 8, Obstacles:** Obstacles identified from the first PDCA / Coaching cycle captured as a bulleted list. Can be expanded as new obstacles are identified.

# Obstacles

- 15-20 minute cap sometimes makes me miss parts of the process
- Preparation time is mostly waste.
- Missing some days backs me up for days at a time.

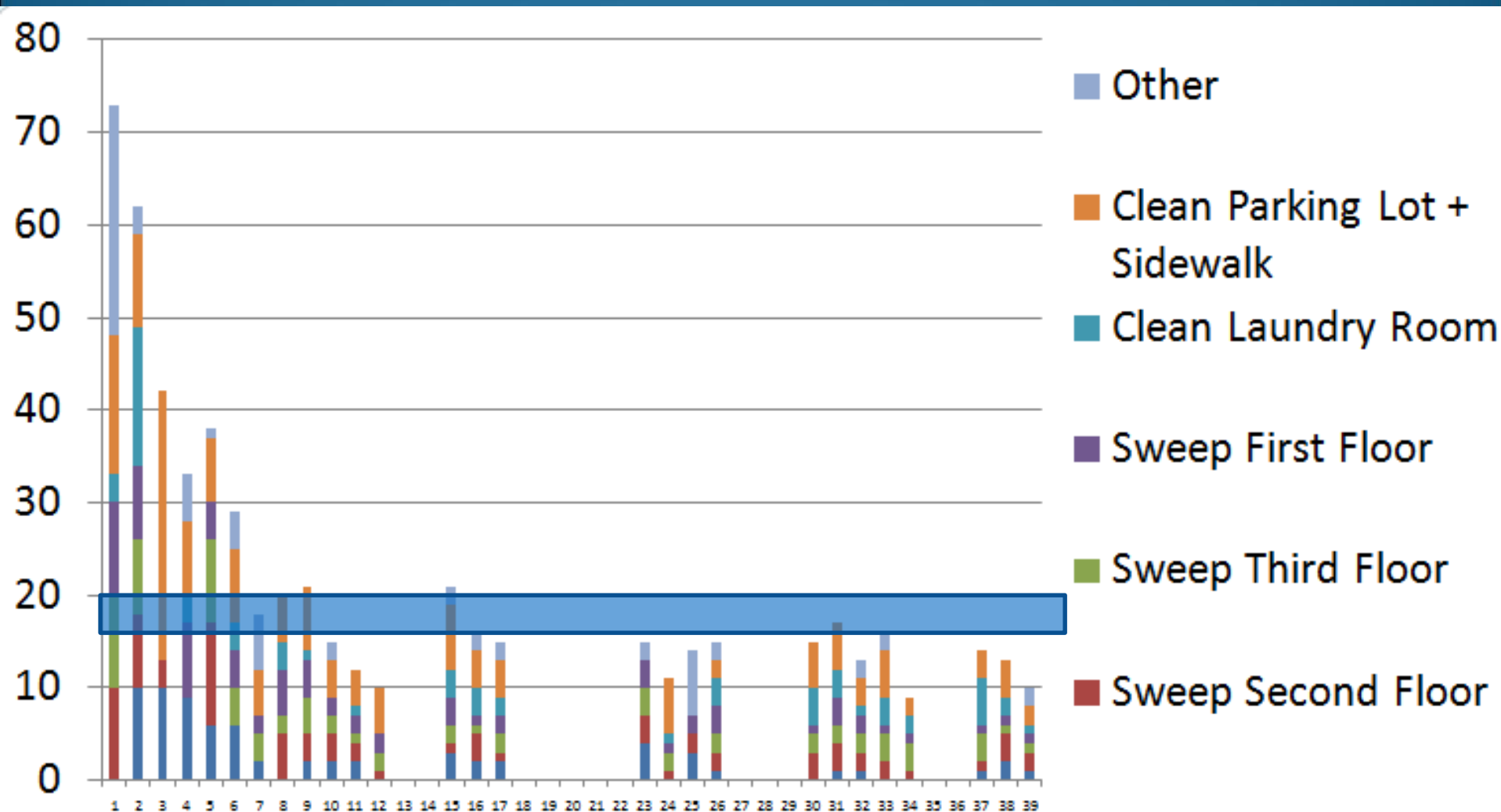
**Step 9a, PDCA Cycles:** All PDCA cycles should be recorded on the “Record of PDCA Cycles” standard format.

# PDCA Cycles/Experiments

Record of PDCA Cycles			
Name: Alex Salkin		Aspect of the T/C we are currently focusing on:	
Coach: Julie Scharnhorst		Stable takt time	
Process: Building Maintenance		Process Metric: Time	
STEP / Date	What do you expect?	RESULT - Observe Closely	WHAT WE LEARNED
1 Begin process at 9:15 2/16/11	This will require me to have a hard stop at 9:30 if I am to make it to work on time.	2/16, 15 minutes exactly, even with a few "other" categories done.	caps time at 15, reaches goal
2 Begin process at 9:15 2/22/11	This will require me to have a hard stop at 9:30 if I am to make it to work on time.	cleaned what I could but didn't get to laundry room or sidewalk	Limits to 15 minutes but we skip some processes in order to fit within bounds
3 Prepare for process the night before	Change preparation time to 0-1 minutes	Preparation 0-1 minutes.	Getting everything ready the night before could cut down total process time by 1-2 minutes.

**Step 9b, Supporting Data:** Please be sure to include key supporting data / run charts generated during your PDCA cycles..

# Run Chart



**Step 9b, Supporting Data:** Please be sure to include key supporting data / run charts generated during your PDCA cycles..

# Raw Data

Date	Preparation	Sweep Second Floor	Sweep Third Floor	Sweep First Floor	Clean Laundry Room	Clean Parking Lot + Sidewalk	Other	Total (Mins)
19-Feb								0
20-Feb								0
21-Feb								0
22-Feb	4	3	3	3	0	0	2	15
23-Feb	0	1	2	1	1	6	0	11
24-Feb	3	2	0	2	0	0	7	14
25-Feb	1	2	2	3	3	2	2	15
26-Feb								0
27-Feb								0
28-Feb	0							0
29-Feb	0	3	2	1	4	5		15
1-Mar	1	3	2	3	3	5		17
2-Mar	1	2	2	2	1	3	2	13
3-Mar	0	2	3	1	3	5	2	16
4-Mar	0	1	3	1	2	2		9
5-Mar								0
6-Mar								0
7-Mar	1	1	3	1	5	3		14
8-Mar	2	3	1	1	2	4		13
9-Mar	1	2	1	1	1	2	2	10

**Step 10, 1 Page Summary:** Brief synopsis of your project and the progress you made from your Initial Current Condition til the end of the project. Include as much data as possible. Bullet comments are also welcome.

# Synopsis

- Having completed several cycles of the maintenance process, I can say that I am now proud of the condition of the building. The process has gone from around 60 minutes once per week to 10-15 minutes four to five times a week. I have become proud of the condition of the building.
- Having achieved a stable cycle time between 10-15 minutes, it may be time to establish the next target condition.



### Step 11, Reflection: Bullet list of...

- Your key learnings from using the Toyota Kata method on this project.
- How you might improve to be even more effective on your next project
- Implications for business if it were to apply TK approach methodically.

# Reflections

- Toyota Kata was a great way to meet my objectives. Tracking the separate parts of the process let me really understand where to focus my energy. Any time I may need to solve a problem, I now know what my first step will be - going to the gemba.
- Much of my process was locked in place once I ordered the process for the first time. I would like to see if switching the order of the different steps does anything in regards to efficiency.
- If businesses were to approach problems using the TK approach, just about any goal would be achievable.