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Do a load of laundry:

1. Identify the Problem - What is the reason for doing laundry... Do you have an important event coming up and require a specific attire? Do you not have any clean clothes? Is there an odor coming from the closet?
 - a. What is the metric we need to find? - Time per load, Cost per load, Are loads split due to color, fabric etc? Washing pods per load? Does each machine have an item limit?
 - b. What are we solving for? - We (the business) need clean clothes to operate.
2. What do I need to know?
 - a. Ask questions - When do you need to do the laundry? Who wants you to do laundry? Where will you do laundry? Can everything be machine washed? How long will it take you to wash? Will you have to complete this task over multiple days? What do you need to wash clothes? Are you using any additives (scent beads, dryer sheets etc.)
 - b. Beginning point of data - Basket full of dirty laundry
 - c. Transaction level - Every item washed/Every "load" washed
 - d. What are we collecting this data for? - Once collected, we will understand why every laundry day 3 loads are washed, 60% of detergent is used, 5 miles have been traveled and we can use this to infer opportunities to simplify the process
3. Identify all the things I need to find then pull the data
 - a. Basket full of dirty laundry - How many clothing items does this entail? (75L Laundry hamper for 1 person holds 50 items)
When does it need to be done - During Laundromat business hours
Where will you do it - Laundromat
Who wants you to do laundry - Yourself
Why are you doing laundry - No clean clothes
Everything machine washable - Yes
How long will it take - Depends on load size (S: 20 mins, M: 30 mins, L: 40 mins)

Multi-day task - No, 1 day max

Materials needed - Laundry detergent, Cash, Laundry hamper, Laundromat Card,

Any misc. Materials - No

Cost of project - Depends on load size (S: 2.50, M: 2.75, L: 3.00)

4. Organize data, This is what I need to collect

- a. Utilizing Sequential steps: You have a 75L laundry hamper holding it's max of 50 items, you realize you have to do laundry, you are doing laundry because you have no clean items, every item is machine washable, task can be completed in one day, Laundromat is open from 8am-12pm, In order to do laundry each transaction entails detergent/cash/hamper/laundromat card, you travel to Laundromat, each washer has different sizes and prices based off of amount of items held, 50 items cannot fit in 1 washer, you separate items by color (lights and whites), you have 25 lights and 25 whites, 25 items fit into the S washer for \$2.50/20 mins(x2), drying is free.

5. Identify Relationships; Find source of problem

- a. You have no clean clothes for school this week, you realize your hamper is full and it's time to do laundry. All your items are machine washable so you travel to the Laundromat. In order to do laundry at the laundromat you need detergent, cash, hamper, laundromat card. You walk to the laundromat while it is open from 8am-12pm. You have too many clothes to stuff in 1 washer so you separate into 2 loads. You pay approximately \$5.00 to wash 50 items with drying included. Each washing cycle is 20 minutes and each drying cycle is 20 minutes 20(x4). It will take you 1hr 20min to do 2 loads of laundry. The problem is you want to do laundry because you have no clean clothes and can't walk around naked

6. Find a Solution

- a. Undo the problem: You are naked because you have no clean clothes because you haven't done laundry in an unspecified amount of time. There are opportunities to circumvent the problem by setting a timeline when laundry needs to be done (i.e every 2 weeks) or instead of waiting until the hamper is full, laundry is now done at 50% hamper capacity to avoid being naked.

7. Presentation:

The initial request was to do a load of laundry. Upon inspection, the source of the problem was you have no clean clothes which resulted in not being able to go out because you were naked

To have clothes available to wear around the house, at events, or other misc activities, first you must determine if every item is machine washable. Since we have no clothes to wear, we know our hamper is full of our 50 clothing items. On the day of doing laundry, you prepare your materials such as cash, card, hamper and detergent and travel to the laundromat within business hours. To cut costs there is a small washing machine available costing \$2.50 with a time of 20 minutes. Each small washing machine holds a max of 25 items. After separating your items \$5.00 must be available and you must be free for at least 1hr 20min to fully wash and dry 50 items. Opportunities presented by the data include washing items when hamper reaches 50% capacity so you always have an item of clothing on your back