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Assignment: Value Stream Mapping (VSM)

Value Stream Mapping (VSM)

Value Stream Mapping (VSM) is a Lean management technique used to visualize the steps required to complete a process from start to finish. The purpose of VSM is to identify value-added and non-value-added activities, analyze process flow, and uncover opportunities to eliminate waste and improve efficiency. While commonly used in manufacturing and software development, Value Stream Mapping can also be effectively applied to everyday life processes.

This paper applies Value Stream Mapping to my weekday morning routine. By mapping and analyzing this routine, inefficiencies and sources of waste can be identified and improved using Lean principles.

Value Stream Description

The selected value stream represents my **weekday morning routine**, beginning when I wake up and ending when I start work. The total estimated duration of this value stream is approximately **6.25 hours**. The goal of this process is to prepare myself, my household, and my workspace so that I can begin work on time and fully prepared.

The routine is divided into five primary process groups:

1. Early Morning
2. Breakfast
3. Chores
4. Grooming
5. Work Preparation

Figure 1 below illustrates the current-state Value Stream Map for this routine.

Current-State Value Stream Map

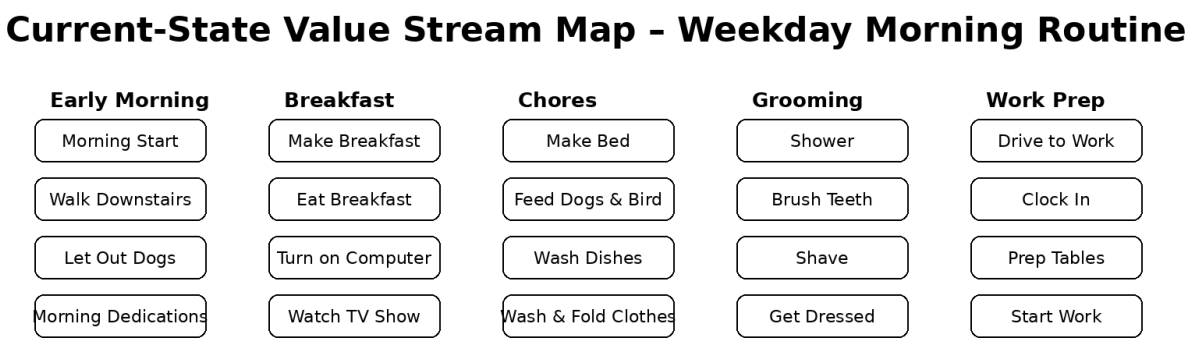

Figure 1: Current-State Value Stream Map -Weekday Morning Routine

Current-State Process Analysis

The current-state VSM shows the flow of activities across the five major process groups.

Early Morning

This phase includes walking downstairs, letting the dogs out, and completing morning dedications. These tasks help establish the start of the day but involve some waiting and movement between locations.

Breakfast

The breakfast phase includes making and eating breakfast, turning on the computer, and watching a television show. This phase consumes a significant amount of time and includes non-value-added activities that delay progression to later steps.

Chores

Chores include making the bed, feeding the dogs and bird, washing dishes, and washing and folding clothes. These tasks are necessary for household maintenance but involve repeated motion and task switching.

Grooming

Grooming consists of showering, brushing teeth, shaving, and getting dressed. This phase is relatively efficient but contains opportunities for task consolidation.

Work Preparation

The final phase includes driving to work, clocking in, preparing tables, and starting work. While transportation time cannot be eliminated, it represents a large portion of the overall cycle time.

Lean Metrics Analysis

Estimated Average Flow Time

Process Area	Time
Early Morning	**60 minutes**
Breakfast	**120 minutes**
Chores	**60 minutes**
Grooming	**25 minutes**
Work Preparation	**120 minutes**

- **Total Estimated Cycle Time: 6.25 hours**
- The **Breakfast** and **Work Preparation** phases are the largest contributors to total cycle time.

Value-Added and Non-Value-Added Activities
Value-Added (VA) Activities

- Eating breakfast
- Feeding pets
- Grooming and personal hygiene
- Driving to work
- Work preparation tasks

These activities directly contribute to the goal of being prepared for work.
Non-Value-Added (NVA) Activities

- Watching television during breakfast
- Excess movement between rooms
- Separating tasks that could be batched together

These activities add time without directly increasing value and represent opportunities for improvement.

Identified Lean Waste

The following Lean waste categories were identified in the current-state VSM:

- **Waiting:** Watching television during breakfast delays task progression.
- **Motion:** Repeated movement between rooms during chores and pet care.
- **Overprocessing:** Performing grooming and feeding tasks separately when they could be combined.
- **Transportation:** Daily commute time, which is necessary but should be optimized.

Future-State Optimization Plan

Several improvements can be implemented to reduce waste and improve flow:

1. **Eliminate Morning Television**
    a. Removing television during breakfast eliminates non-value-added time.
    b. Recovered time can be redirected to homework or work preparation.
2. **Batch Pet Feeding Tasks**
    a. Feeding dogs and the bird at the same time reduces motion and task switching.
3. **Combine Grooming Activities**
    a. Brushing teeth during the shower reduces total grooming time.
    b. Installing a fogless mirror supports this optimization.
4. **Meal Preparation in Advance**
    a. Preparing meals for the week reduces daily breakfast preparation time.
    b. Improves consistency and reduces decision fatigue.
5. **Standardize the Morning Workflow**
    a. Following a consistent task order reduces unnecessary movement and delays.

Expected Improvements

By applying these Lean improvements, the future-state process is expected to achieve:

- Reduced total cycle time
- Increased process efficiency
- Fewer non-value-added activities
- More time allocated to high-value tasks such as schoolwork and job preparation

This Value Stream Mapping exercise demonstrates how Lean principles can be effectively applied to everyday life processes. By mapping the current-state morning routine, inefficiencies and waste were clearly identified. Implementing the proposed improvements will streamline the routine, reduce wasted time, and improve overall productivity. This

example highlights the versatility and practical value of Value Stream Mapping beyond traditional business environments.

References

Atlassian. (n.d.). What is value stream mapping? Guide & benefits. https://www.atlassian.com/continuous-delivery/principles/value-stream-mapping

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