If You Can’t Take the Heat – 5S

Fletcher Robbins
Kitchen Makeover
9.27.2007
Goal: Eliminate the muda and prioritize the inventory

Inventoried each shelf and drawer

Rated each item based on frequency of use

- High – accessed multiple times per week
  - Spatulas, measuring cups, vegetable peeler, rabbit’s oatmeal
- Medium – accessed or consumed multiple times per month
  - Special use utensils, certain soup varieties
- Low – seasonal or redundant items
  - Cookie cutters, extra spatulas, meat tenderizer
- Never – dysfunctional or expired items
  - Stand-up grater, drinking straws, canned sauces

Results
- Retained “High” and “Medium” items
- Stored or relocated “Low” items
- Discarded “Never” items
Sorting: What you don’t know can…

3 Containers of Peanut Butter ?!?  
5 Whisks ?!?  

Corner Cabinet – Middle Shelf Inventory

Takeaways
- We store a lot of utensils that we never use due to redundancies
- Several occasions of duplicate inventory of consumables, indicating that we purchased supplies before we needed to
Set in Order

- **Goal:** Utilize available space more effectively by prioritizing placement of items based on frequency of use

- **Steps**
  - Measured available space
  - Established value to real estate
    - Eye level (i.e. cabinet bottom shelf) is preferential to top shelves
    - Top drawer is superior to bottom drawers
    - Front of shelf is superior to back
    - Utensil bin is most visible and readily accessible, therefore most valuable
  - Determined if organizational accessories would be beneficial
  - Considered physical limitations of items
    - Items may only fit on certain shelves, unless shelves are moved
Setting in Order: Everything in its place

- Best real estate (upfront and within arms reach) dedicated to most highly accessed items

- Decided against lazy-susan due to awkward geometry

Top view of corner cabinet interior
Setting in Order: Everything in its place

- Measured dimensions of utensil drawer and spice cabinet, opted to purchase 2 organizational accessories for $16

Top: Stepped Shelf Insert
Right: Organized spices using insert
Shine

- **Goal:** Ensure that that area is safe, clean, and inviting

- **Steps**
  - Removed and discarded all items past their expiration date
  - Relocated currently inappropriately placed items
    - Matches moved to fireplace area
    - Birthday candles and cookie cutters moved to baking supply shelf
    - Loose cutting implements sheathed and placed in storage
  - Cleared and cleaned workspaces during inventory
  - Assigned utensils to compartments within drawer organizer

- **Results**
  - Dangerous utensils and fire hazards have been resolved
  - Unsavory perishables have been properly disposed of
  - Shelves and drawers are more appealing to open
Standardization

- **Goal:** Develop a set of practices to maintain a “good normal” condition and assign responsibility to stakeholders

- **Steps:**
  - Identify potential savings to standardizing work
  - Obtain buy-in from management (i.e. my wife)
  - Develop a nightly audit process
  - Create a visible inventory system that guards against redundant purchases and tracks expiration dates
  - Ensure checks and balances – if one person does the cleaning, the other person performs the nightly audit
Standardization – Benefits and Management

- **Potential savings and benefits**
  - Estimated that through the sorting process, we discarded nearly $50 worth of consumables and utensils deemed redundant or expired
  - Healthier environment and increased longevity of properly maintained equipment – difficult to quantify

- **Management buy-in and checks & balances**
  - 5S was not a particularly hard sell since my wife is more driven to maintaining cleanliness than myself
  - Incorporated my wife in the earlier stages of the project
    - Assisted in determining which items to discard
    - Recommended organizational accessories
  - **Challenges**
    - My wife is often out of town so I am left to verify my own work
Perform sweeping visual inspection through kitchen

- Sink and drying rack
  - Are items present that should be in the dishwasher or put away?

- Glassware and tableware cabinets
  - Are plates and glasses accounted for?

- Corner cabinet
  - Are items essentially on the correct shelves? (not necessary to catalog each)

- Counters and range top
  - Are they clean?

- Spice cabinet
  - Are all spices present and situated on step insert?

- Utensil drawer
  - Are utensils in appropriate compartment?
Standardization –
Inventory Management and Responsibilities

- **Inventory management**
  - Check inventory levels of highly accessed items
    - Post refill requests on dry erase board as items are used
  - Verify that enough cleaning supplies are available for expected use over the next week

- **Accountability Matrix**

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Sustain

Goal: Develop discipline necessary to realize benefits from 5S project

Takeaways

- Sorting step eliminated a lot of redundancies which were not missed during the week
- Audit process designed to promote standardized behavior was not truly tested due to minimal disturbance to the system over the course of the week
- Order was maintained within the target areas except for the corner cabinet

Utensil Drawer – 1 week later
5S Outcomes and Challenges

- **Estimates of time saved**
  - **Cleaning** – 10 min per week
    - Previously cleaning was done as needed, usually when exceeding our threshold
    - Cleaning activities are now consolidated with cooking via multi-tasking (i.e. cleaning while cooking)
  - **Shopping** – 20 min per week
    - Dry erase board sets shopping list
    - Fewer items are purchased as duplicates, saving time in store
    - Unpacking is quicker because frequently used items have a preferred home

- **Lingering challenges**
  - **Corner Cabinet**
    - Awkward geometry still poses a dilemma since items can become hidden easily
  - **Sustaining accountability**
    - Matrix breaks down as schedules change
Appendix
Bad Normal State
From Previous Submission
Current Condition

- Location of need: Kitchen
  - Food prep utensil drawer
  - Plastic tupperware cabinet
  - Non-perishables cabinet

- Operators: Myself and my wife

- Typical Use: 5+ occurrences daily
  - 2 separate breakfasts, 2 lunches, 1 dinner

- Examples of Good and Bad normal exist
Different layouts present challenges and opportunities

- Previous residence
  - Separate shelving unit designated for infrequently accessed items
  - Hanging rack for storing/displaying pots
  - Fewer utensils, less duplicates
  - Rotating countertop spice rack

- Current residence
  - Lazy-susan built-in for storing pots and mixing bowls
  - Deeper cabinets allow items to get lost
    - Awkward corner cabinet, narrow opening with deep recess

Good and Bad habits carryover

- Good habits employed for flatware, plates/dishes, cups and glasses, wraps and foils
- Bad habits persist for challenging utensils, tupperware, misc.
Bad
Normal

Deep catch-all corner cabinet

Odd shaped prep utensils

Highly dysfunctional tupperware cabinet