Process Improvement

Clifford Thorstenson
Clifford.thorstenson@dau.mil
937-781-1075
Overview

• Philosophies
• A few Tools
• Implementation Tips
YOU'VE GOT TO IMPLEMENT A SIX SIGMA PROGRAM OR ELSE YOU'RE DOOMED.

AREN'T YOU THE SAME CONSULTANT WHO SOLD US THE WORTHLESS TQM PROGRAM A FEW YEARS AGO?

I ASSURE YOU THAT THIS PROGRAM HAS A TOTALLY, TOTALLY DIFFERENT NAME.

WHEN CAN WE START?
YOU'VE GOT TO IMPLEMENT A SIX SIGMA PROGRAM OR ELSE YOU'RE DOOMED.
Process Improvement

Many complementary philosophies.

- **Lean** emphasizes minimizing waste and adding value for the customer

- **Six Sigma** emphasizes minimizing variation and eliminating defects

- **Theory of Constraints** emphasizes identifying and removing bottlenecks
Service Programs

• Navy – Airspeed
• Army – Lean Six Sigma
• Air Force – Smart Ops 21

All combine a variety of tools and techniques to improve their Enterprise Processes
Process Defined

- Any activity that takes inputs, performs actions on the inputs, and results in outputs

Inputs:
- Materials
- People
- Equipment
- Data

Outputs:
- Product
- Service
Three Views of a Process

1. Policy (documented)
2. Leadership View as applied
3. What is really happening
Value Stream Mapping

• A key starting point for process improvement
Value Defined

Value-Added Activities
- Transforms or shapes material or information
- Customer wants it
- Done right the first time

Required Waste
- No value created but required by current technology
- No value created but required by current thinking
- No value created but required by process limitations

Waste
- Consume resources but create no value for the customer
- Pure waste
Eliminate Waste

Types of Waste
  • Defects
  • Over Production
  • Transportation
  • Movement
  • Waiting
  • Inventory
  • Over Processing
  • Lost Creativity
Value Stream Mapping

- Define the boundaries
- “Walk” the process
  - Identify tasks and flows of material and information between them
- Gather data
  - Identify resources for each task and flow
- Create the “Current State” map
- Define the value
- Analyze current conditions
  - Identify value added
  - Identify waste
- Visualize “Ideal State”
- Create the “Future State” map
  - Change process to eliminate waste and maximize value
- Develop action plans and tracking
Lean Emphases

- **Initial Process**: Reduce all processes by 25%
- **General Process Reduction**: Waste and Value Both Decrease
- **Waste Only Reduction**: Target & Reduce Waste Maintain Value
- **Value Creation**: Apply Resources to Create More Value

**Resource distribution**

Opportunity for improvement by reducing waste and creating additional value
6 S Overview

• Simplify
• Shine
• Sort
• Standardize
• Sustain
• Safety
6S Activity

Find the numbers from 1 to 49 in order

You will have 20 Seconds
Results check

- 0
- 1,2,3,4,5
- 6,7,8,9,10
- 11,12,13,14,15
- 16 or greater
Let’s remove some clutter

• Find the numbers from
• 1 to 49 in order

• You will have 20 Seconds
Results check

• 0
• 1, 2, 3, 4, 5
• 6, 7, 8, 9, 10
• 11, 12, 13, 14, 15
• 16, 17, 18, 19, 20
• 21 or greater
Let’s add some order

• Find the numbers from
• 1 to 49 in order

• You will have 20 Seconds
Results check

• 0
• 1,2,3,4,5
• 6,7,8,9,10
• 11,12,13,14,15
• 16,17,18,19,20
• 21,22,23,24,25
• 26,27,28,29,30
• 31 or greater
Let’s add clear order

• Find the numbers from
• 1 to 49 in order

• You will have 20 Seconds
Keys to Successful Implementation

• Journey Mindset
• Visible Leadership Support
• Mutual Trust
• Aligned Reward System

This is a Culture Change
DAU Continuous Learning Center

https://learn.dau.mil/html/clc/Clc.jsp

select the "Course Information & Access" link.

CLE 004, Introduction to Lean Enterprise Concepts
CLE 008, Six Sigma: Concepts and Process
CLE 007, Lean-Six Sigma
CLE 001, Value Engineering.
CLE 015, Continuous Process Improvement Familiarization.
Thank you for Participating

For additional information, please contact:

Clifford Thorstenson
Clifford.thorstenson@dau.mil
937-781-1075

Scott Miller
Scott.miller@dau.mil
937-781-1068

Dan Dupree
Daniel.dupree@dau.mil
937-781-1061