

Kaizen Definition

Kai - Take apart and make new

Zen - Think about so as to help
others

Why Use Kaizen?

- To solve problems (**without already knowing the solution**)
- To eliminate waste (Muda)
 - Transportation, Inventory, Motion, Waiting, Over-production, Over-processing, Defects
- Create ownership and empowerment
- Support lean thinking

“All we are doing is looking at the time line; from the moment the customer gives us an order, to the point when we collect cash. We are reducing that time line by removing the non-value-added wastes.”

Taiichi Ohno

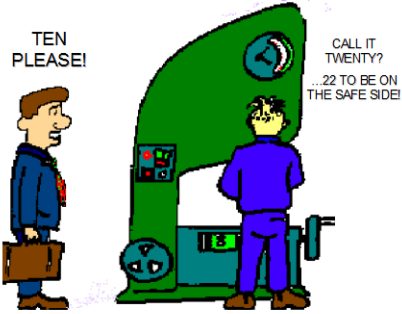


Simple, very clear focus

Motion

Taiichi Ohno's 7 Wastes

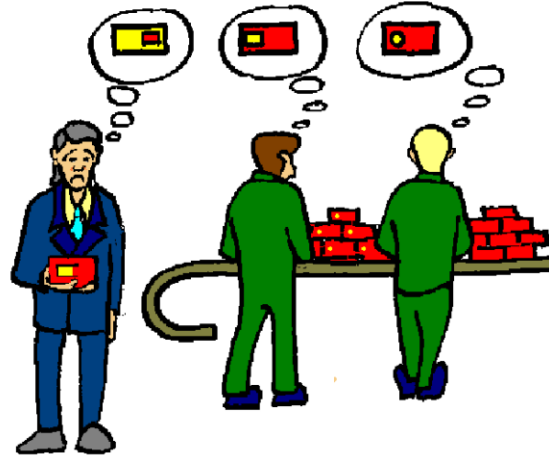
Over - Production



Over -Processing



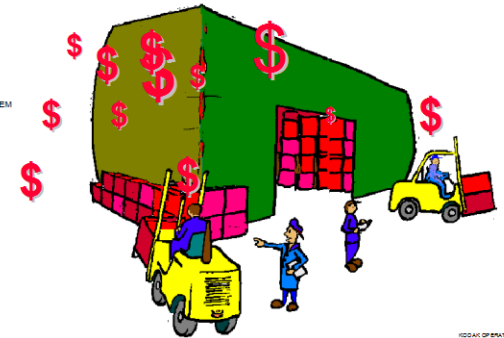
Defects / Rejects / Re-work



Waiting



Inventory



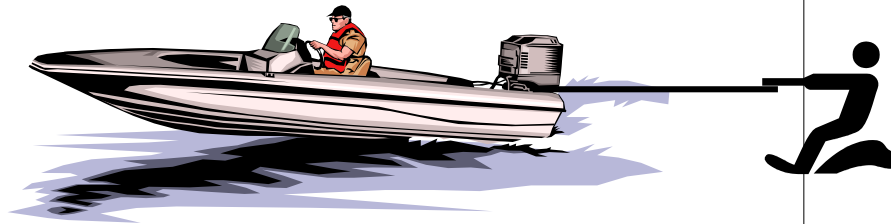
Takt



Flow



Pull



What is a Kaizen Workshop?

- A short burst of intense activity & effort (can range in hours to days)
- Emphasis on action over analysis
- Focused on improving the Value Stream and achieving flow
 - Flow for materials and information
- Driven to resolving a specific problem or achieving a specific goal. (Don't bite off more than you can chew)

A Kaizen Workshop is Characterized by

- A focus on an area or process to achieve a specific goal.
- Includes a team that is empowered to make changes.
- Team make-up should include: Operators, Maintenance, Outside Eyes, and a process owner. (If possible a customer)
- Supported by management with Money, Time, and frequent gemba activity.
- Managed to resolution and a commitment to sustain.

Kaizen Preparation

Pre Kaizen steps are performed so that the Kaizen is as effective and waste free as possible.

1) Define the opportunity

- Cost, Quality, Waste, Safety - Specific

2) Form & train the team

- They must be dedicated resources – commitment
- They must be trained in specifics regarding the task at hand. (ie: process knowledge, lean tools)

3) Set goals / collect baseline data

- Is the problem well understood – what does success look like?

4) Leader & team responsibilities

How Are Kaizen Teams Formed?

- Team composition & training is critical to the success of the team
- Composition should reflect the diversity of the work center
- A team generally consists of 6-10 people
- Each member will be chosen to perform a specific role – everybody works

Kaizen Cycle



Six Basic Rules of Kaizen

1. Respect others

Particularly the local operators, you are in their living room

2. Document reality

If you make changes based on data, the *data should be based on reality*

3. Do your share

Everyone has to contribute

4. Try something new

Be open minded - try it instead of racking your brain for reasons why it won't work (try-storming)

5. Ask why (the 5 why's)

Gain complete understanding, **assume nothing**

6. Be safe / Think safe

Both in your actions and in what you implement

Instructions for filling out the Area Profile

Team # : _____

Event Description:

Describe scope and scale of project

Preliminary Objectives:

Be specific and state measurable objectives.

Do not say " significantly reduce costs by eliminating waste"

Do say "reduce cost of operation by \$500k".

Production Requirements (Takt Time):

Takt = $\frac{\text{Available time}}{\text{Customer demand}}$ Calculate in seconds

Process Information:

A picture of the process flow - show the Current state in a picture, not words

Event Dates:

Team:

Name	Role
Sue	Team Leader
Pete	Co-Leader
Jane	Outside eyes

Consultant:

Sensei's Facilitator:

Current Situation and Problems

Be specific

For example:

Service desk hold times at 92 seconds
10% of all callers hang up before talking to an agent
3% Rework due to tolerance failure

KOS Kaizen Workshop Target Sheet

Building Number:

Team #:

Division Name:

Team Name:

Department Name:

Date:

	(A) Start	(B) Target	(C) 1st Day	(D) 2nd Day	(E) 3rd Day	(F) 4th Day	(G) Final	(H) Difference	(I) % Increase / Decrease
Space (Sq. Ft.)									
Inventory									
Walking Distance (ft)									
Parts Transport Distance (ft)									
Throughput Time									
Process Cycle Time									
Volume Per Day									
Full-time Equivalent Crew									
Productivity									
Changeover (Total time)									
Changeover (Total #)									
Schedule Attainment									
Quality Improvements									
Safety Improvements									
# Poka-yoke Implemented									

Baseline Data:
Current Output Required
Hours per Shift
of Shifts

Remarks: _____

Use Red Dot ● to indicate a change

Use Asterisk * to indicate an estimate

Single Point Lesson

- o Basic Skill
- X Countermeasure
- X Accessibility
- X Safety
- o Poka Yoke
- X Productivity

Title: Coating Point of use chucks

Chuck change during a changeover required operators to use a very heavy and remotely stored cart that eventually became a raised safety concern. The cart was cluttered and could easily tip with all of the chucks stored on it. Sometimes this clutter would cause mistakes from having so many un-needed chucks to sort through or not having the correct parts at all.

By using the basic 5S tools the Kaizen team was able to eliminate the need for the cart by storing chucks point of use to the workstation. This improved safety, reduced the time to change the chucks by over 50% and eliminated the need to search for missing parts.

Before



After



Do's and Don't of Kaizen

- Do be open minded to all approaches
- Do try as many ideas as possible. A minimum of three.
- Do as many observations of reality as possible (10).
- Do include one person who is convinced it can't be done.
- Do make sure management is committed to resolving the issue and supporting the team.
- Don't utilize to implement your solution
- Don't just sit around and brainstorm or justify the current way things are done.
- Don't assume you know the problem
- Don't put more than one of these people on the team.
- Don't hold a Kaizen to resolve an issue that is not driving a business goal.