



Kaizen: the Culture of Continuous Improvement

Instructor: Sammy Obara

Lean Enterprise Institute



Lean Enterprise Institute



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Lean Enterprise Institute

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- Through its publications, summits, conferences, workshops, webinars, online forums, and website resources, LEI helps organizations transform themselves into lean enterprises, based on the principles of the Toyota Business System.
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Samuel (Sammy) Obara
s.obara@honsha.org

Samuel learned the Toyota Production System while working in Toyota Motors in Japan. For three years he underwent intense practical training at the Honsha Overseas Engineering Division in Toyota City. For thirteen consecutive years, he implemented lean in several of the Toyota facilities in Japan, Brazil, the United States, and Venezuela.

Samuel has gained experience in other industries through helping over 300 companies in their lean journey. These include schools, banks, health care, construction, retail, military and government agencies. Samuel has articles on lean culture, problem solving, kaizen, and lean leadership published in magazines such as Pharmaceutical Insider, Assembly Magazine, and Manila Times.

Today he holds the role of coordinator for North America for Honsha.org, an alumni association of former and current Toyota professionals. This organization has an extended vision of helping lean implementation in disadvantaged countries in Asia, Africa, and South and Central America. Samuel is also a faculty member with the Lean Institute in Brazil and in Mexico, and has developed lean curriculum for the California Community Colleges. He holds a Masters Degree in Technology Management and has lectured in universities such as Stanford and Harvard as well as at events such as Apics, AME, and Shingo Prize. Besides English, he can speak Portuguese, Spanish, and Japanese.

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Welcome to this LEI Workshop!

- **LEI Resource Center:**

A wide variety of lean publications are available at the Resource Center. Shipment of all materials purchased at this workshop is free to customers in the continental U.S. (via UPS Ground)



- **Networking with Other Workshop Attendees & Faculty**

If you want to stay in touch with other participants of this workshop, or any LEI workshops you have attended, join our Connection Center on lean.org. See details in your registration confirmation letter or in the appendix of your workshop manual.

Who is LEI?



Mission:
*Make things better through
Lean Thinking and Practice*

Founded in 1997 by
Dr. James Womack.
Non-profit education and
research institute based
in Cambridge, MA.



Education

- Public Workshops
- Online Workshops
- On-Site Training
- Co-Learning Partnership
- Extensive list of Faculty and Associates

Website lean.org

- Over 250,000 members
- Free webinars
- In-depth case studies

Learning Materials



Summits, Speaking Engagements and Community Gatherings

Fostering Lean Throughout the World

- Lean Global Network
- Healthcare Value Network
- Public Services Value Network

Kaizen Workshop

Agenda

- Introductions and purpose of workshop
- Kaizen – back to basics
- Kaizen: Toyota's original concept
- How Kaizen fits in the TPS house
- Why use Kaizen Teian in your organization
- Examples of Kaizen from around the world
- How to start a Kaizen culture
- Discussions





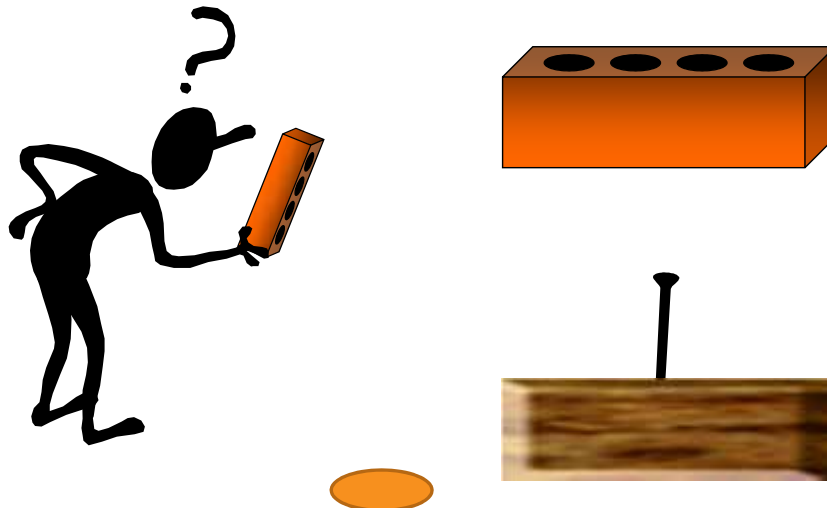
Introductions

Audience & Instructor

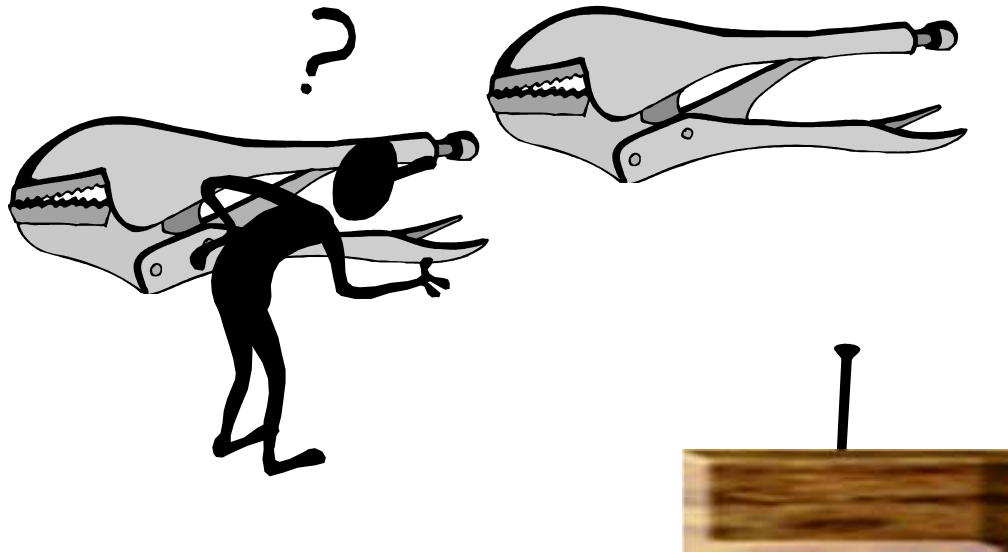
1. Name
2. Organization
3. Your current role
4. Type of business
5. Primary learning goal for today



Why Do We Need a Tool?

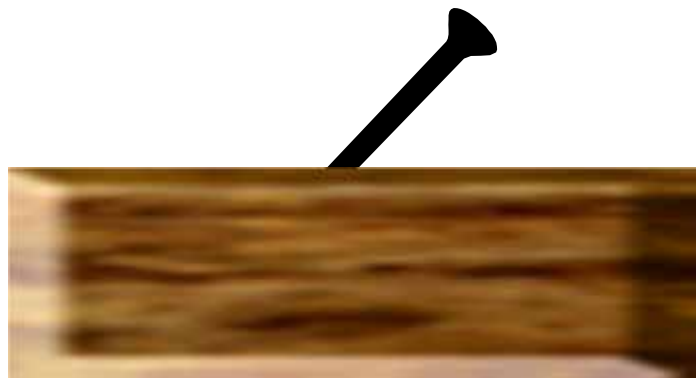


Why Do We Need Correct Tools?



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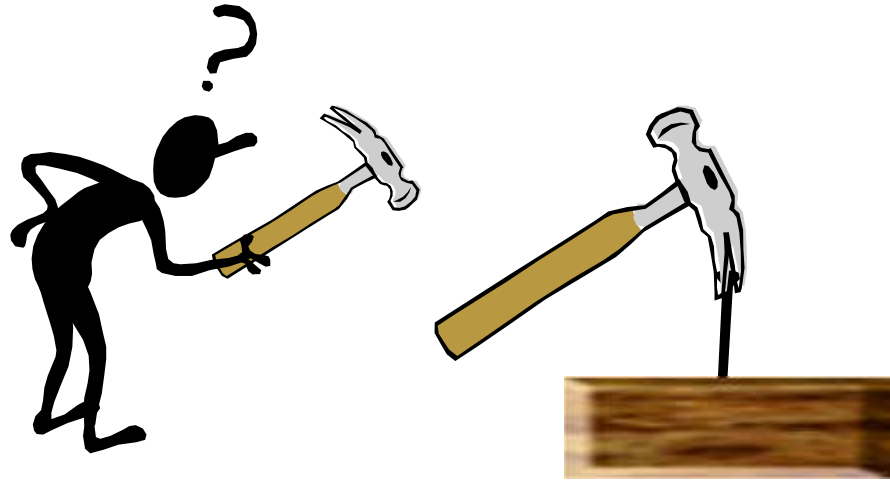


Maybe we get poor quality result!!!

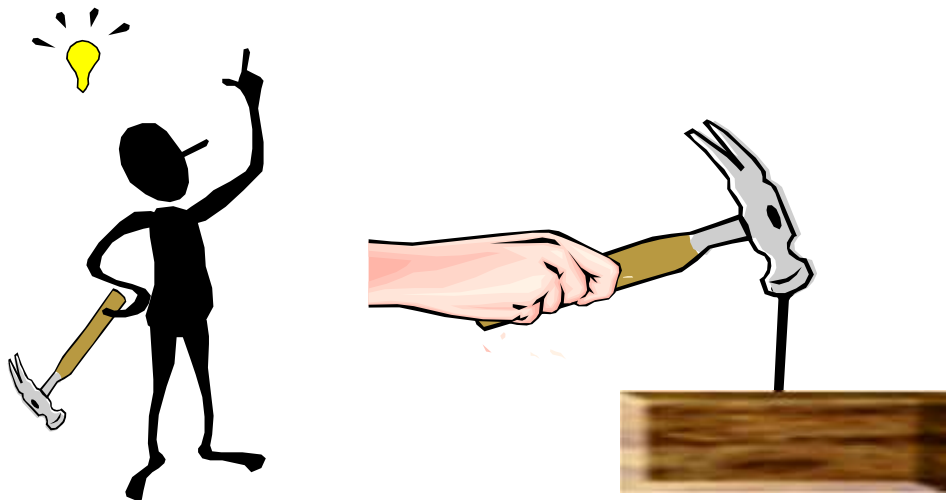
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What if we do Find the Correct Tool but Don't use it Correctly?

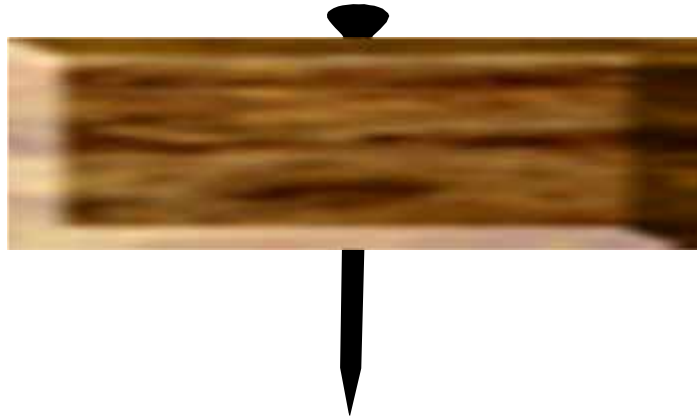


So using the Correct Tool in the Correct way is Important!!!



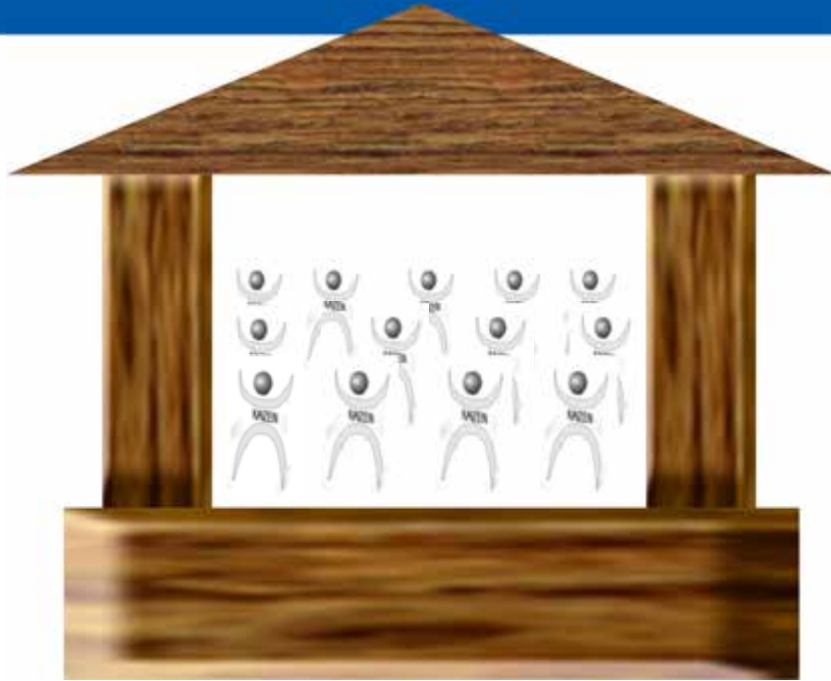


To Achieve Quality Results!!!

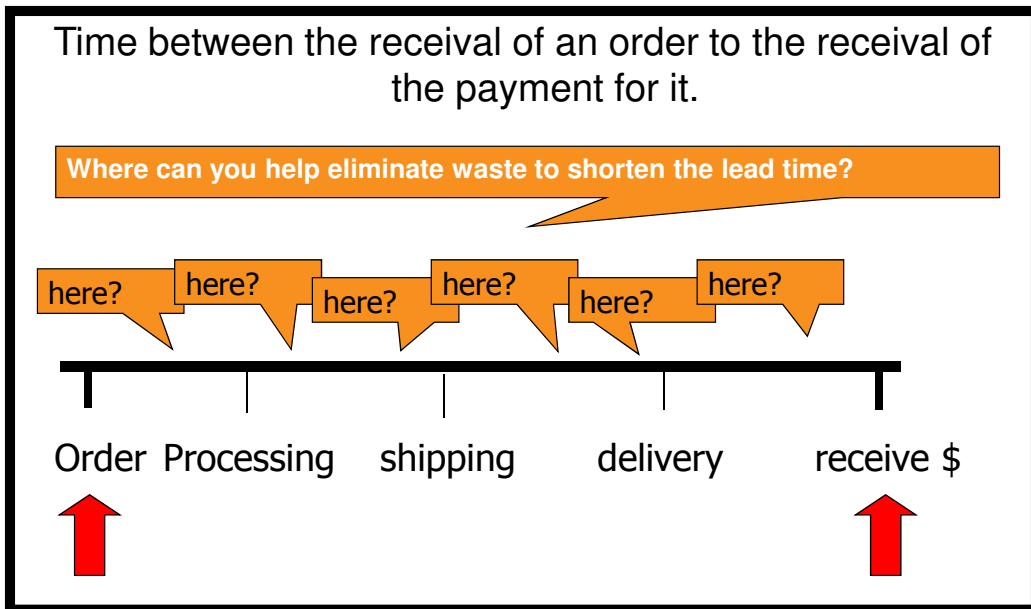


Missing the Purpose

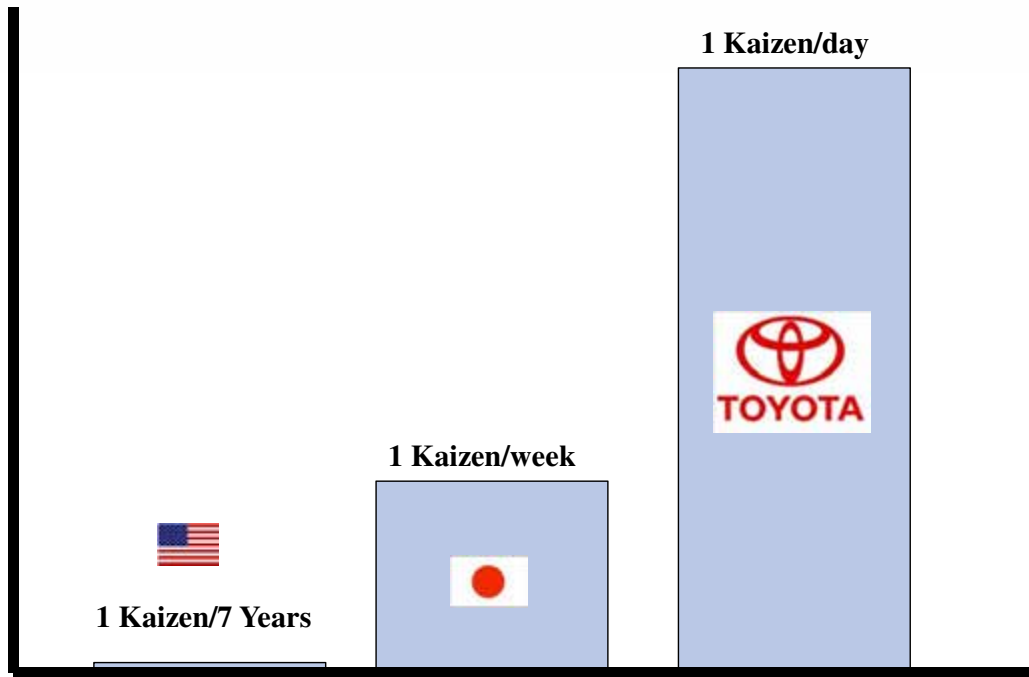




Lead Time



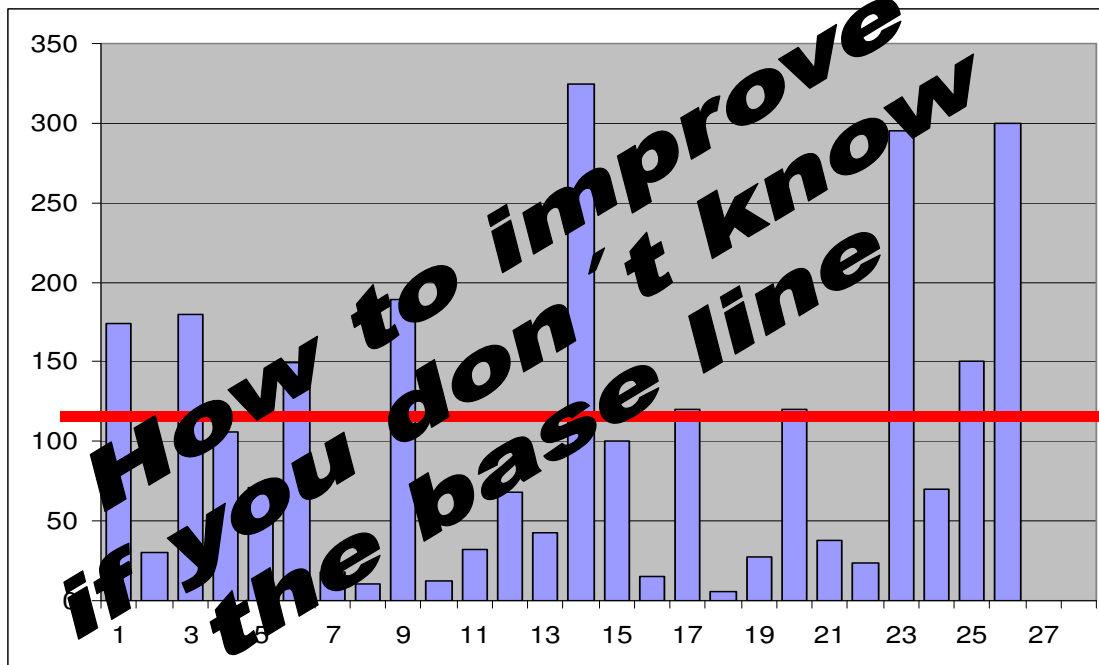
Employee Engagement



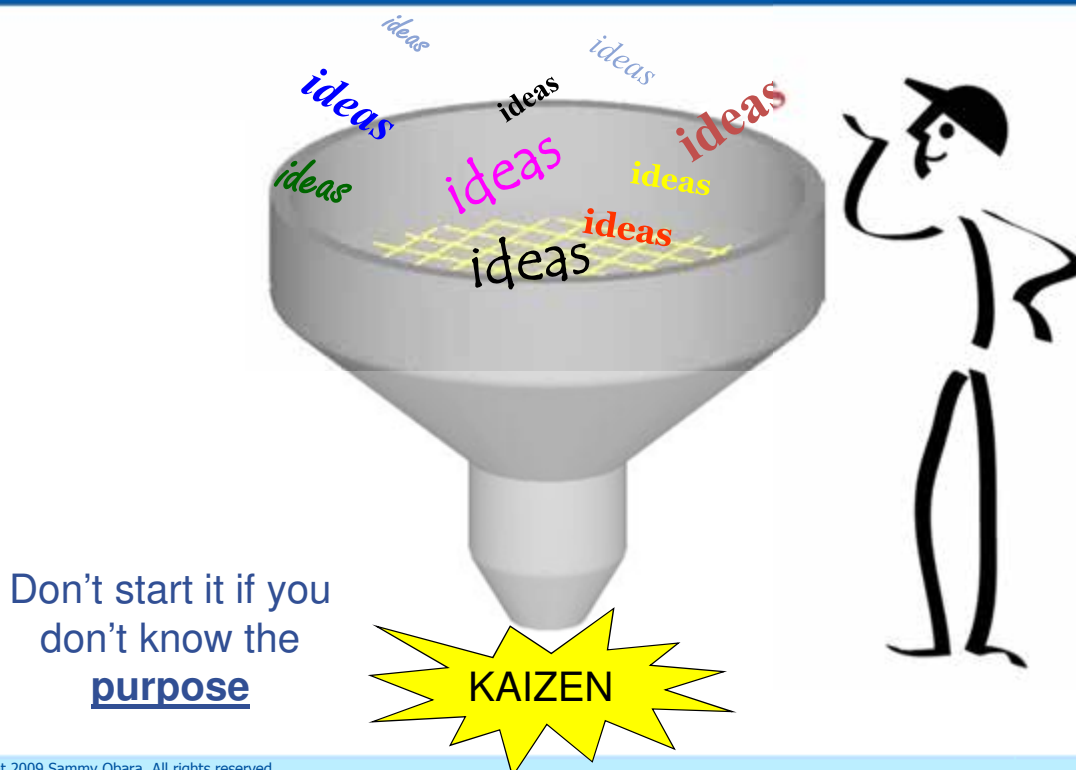
Kaizen Teian

- Kaizen Event
 - Kaizen Blitz
 - Kaizen Breakthrough
 - Kaizen Week
 - Kaizen ...
- } Kaizen in Batches

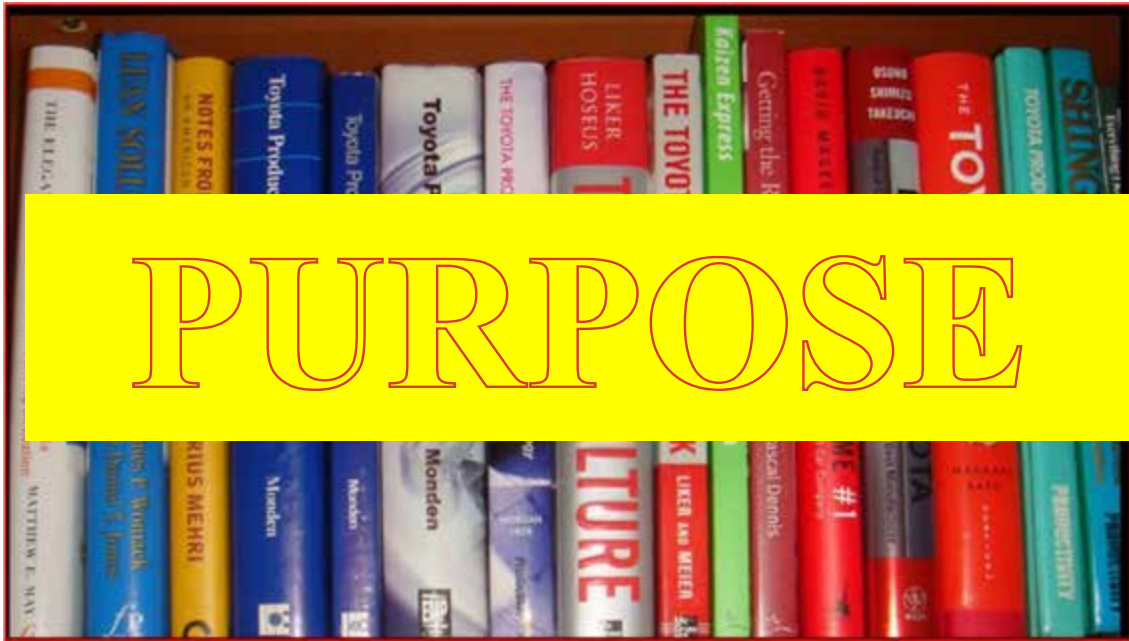
Where is your Base Line?



What is the Purpose of Kaizen?



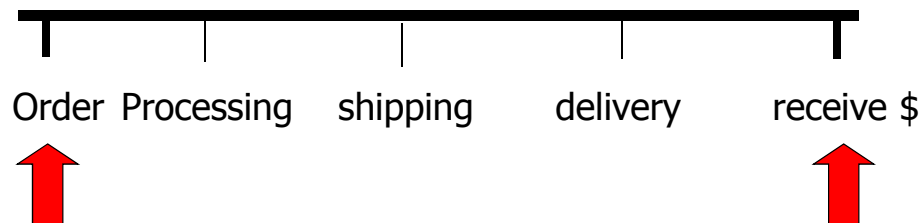
The Most Studied Company in the World



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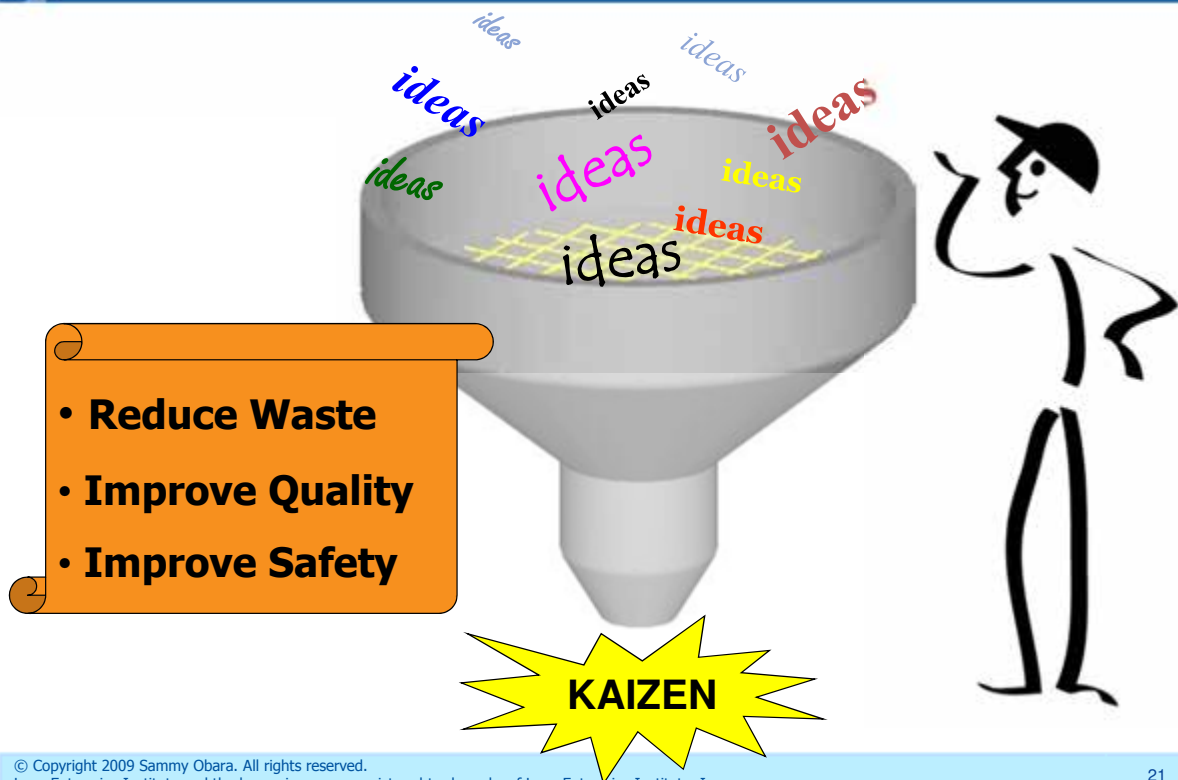
Lead Time

Time between the receipt of an order to the receipt of the payment for it.



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The Three Purposes



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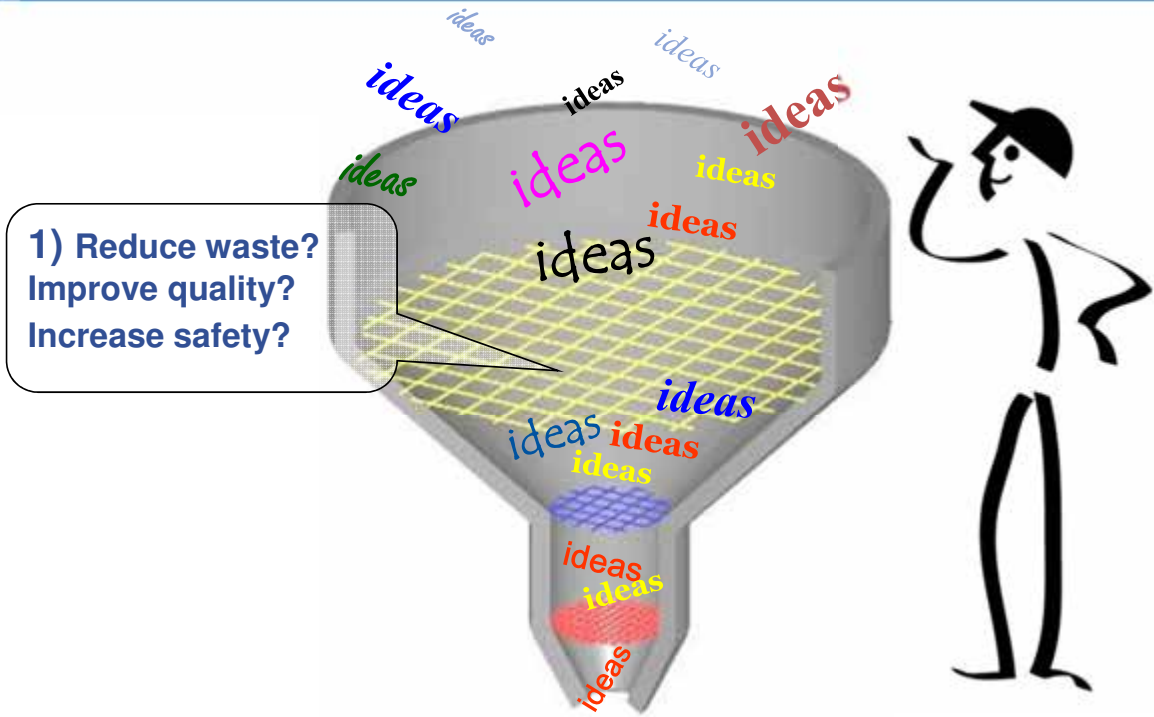
Kaizen Has Three Purposes



1. **Improve Safety**
2. **Improve Quality**
3. **Eliminate Waste**

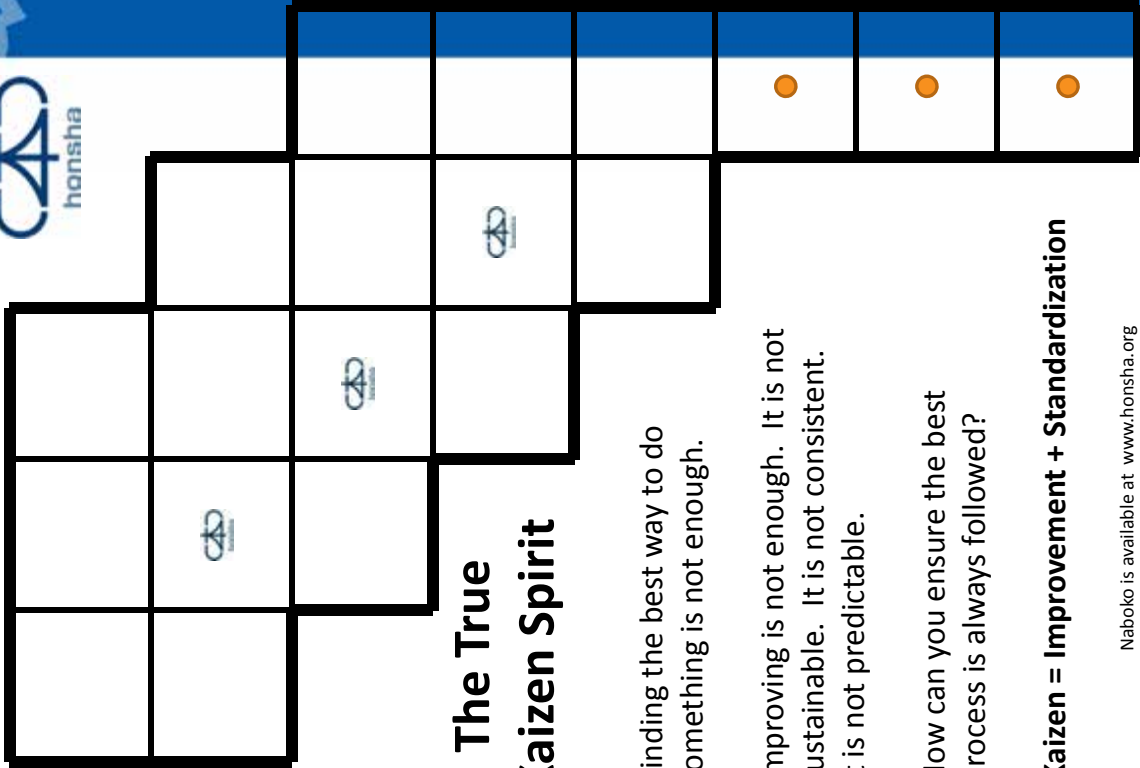
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The Seven Wastes





The True Kaizen Spirit

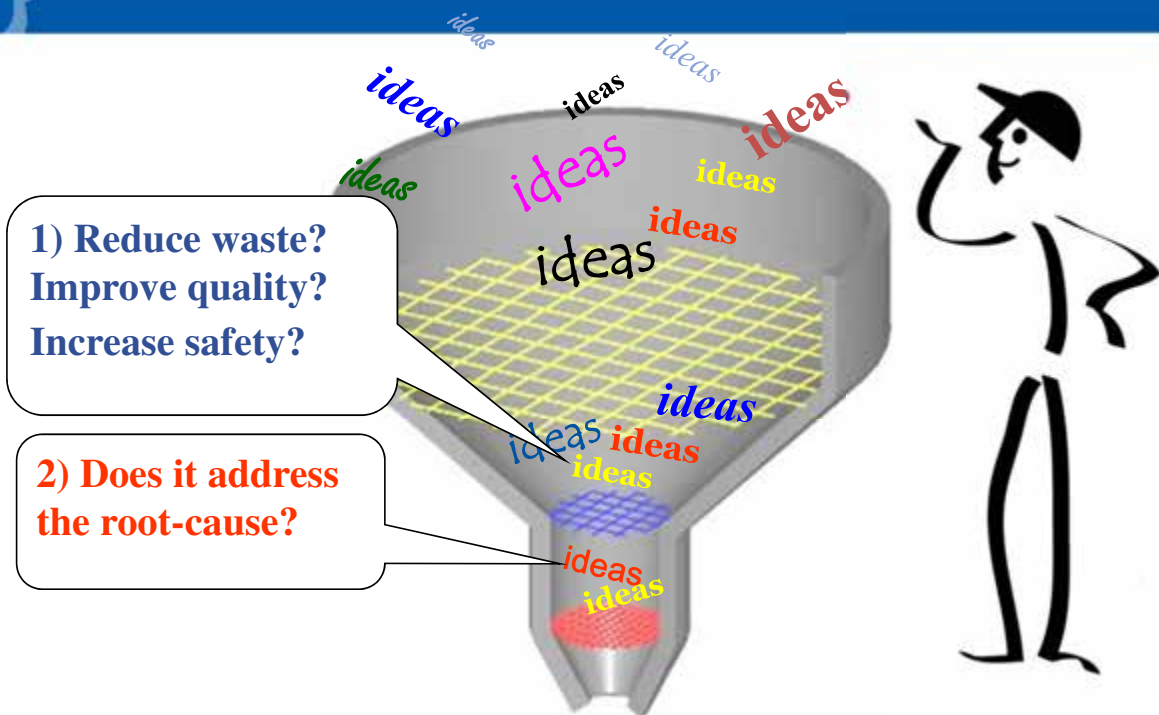
Finding the best way to do something is not enough.

Improving is not enough. It is not sustainable. It is not consistent. It is not predictable.

How can you ensure the best process is always followed?

Kaizen = Improvement + Standardization

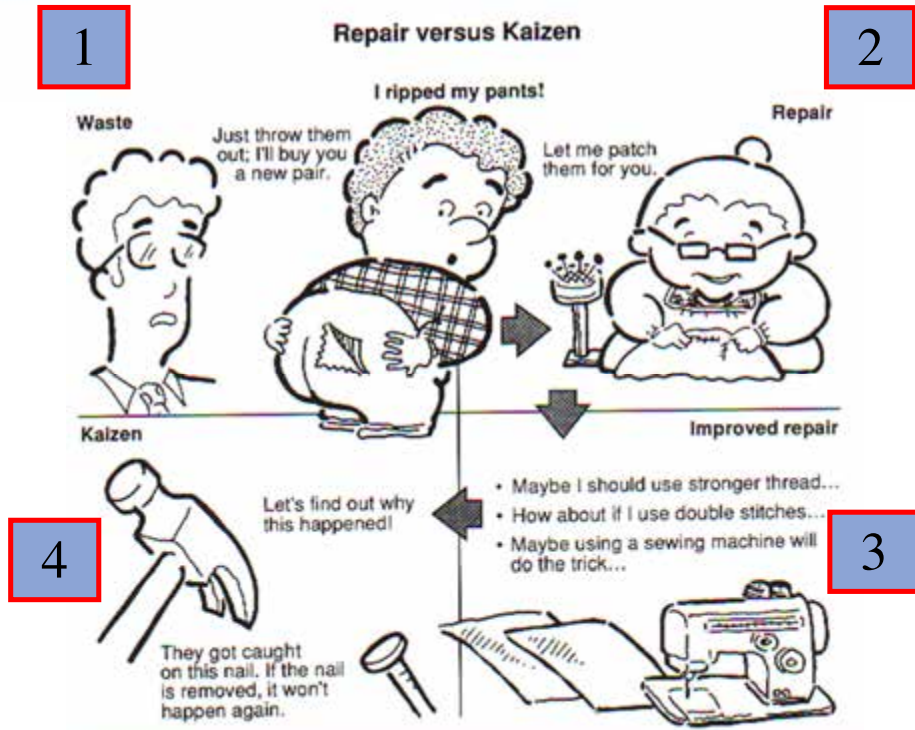
Naboko is available at www.honssha.org



1) Reduce waste?
Improve quality?
Increase safety?

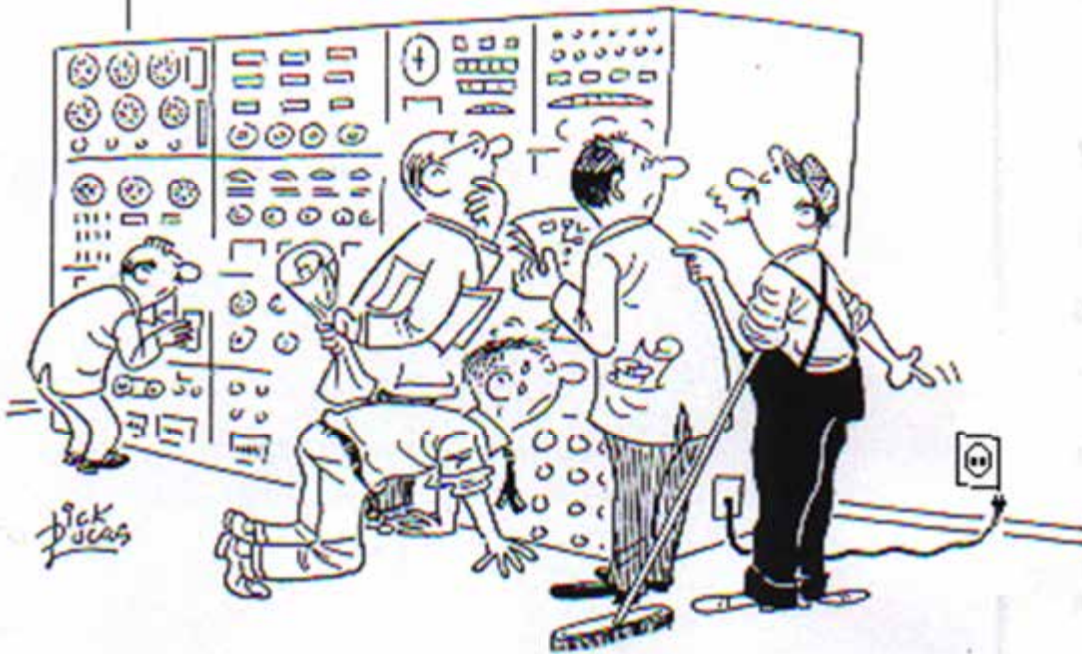
2) Does it address the root-cause?

Root-Cause



Root Cause

Which stage is your company?



Root Cause

WHY is the computer not working?

Because it is not plugged in.

SOLUTION: Plug it in!!



The quick and easy solution.

(so easy and quick that we don't mind repeating it all the time...)

Root Cause- the 5 Whys Technique

WHY is the computer not working?

Because it is not plugged in.

WHY is it not plugged in?

Because the cable has been pulled out of the outlet

WHY was the cable pulled out of the outlet?

Because something got hooked on to the cable and pulled it out.

WHY things get hooked on to the cable?

Because the cable lies on the floor and gets in the way.

WHY does the cable lies on the floor and gets in the way?

Because it is too long.

WHY is the cable too long?

Uh?... I don't know...

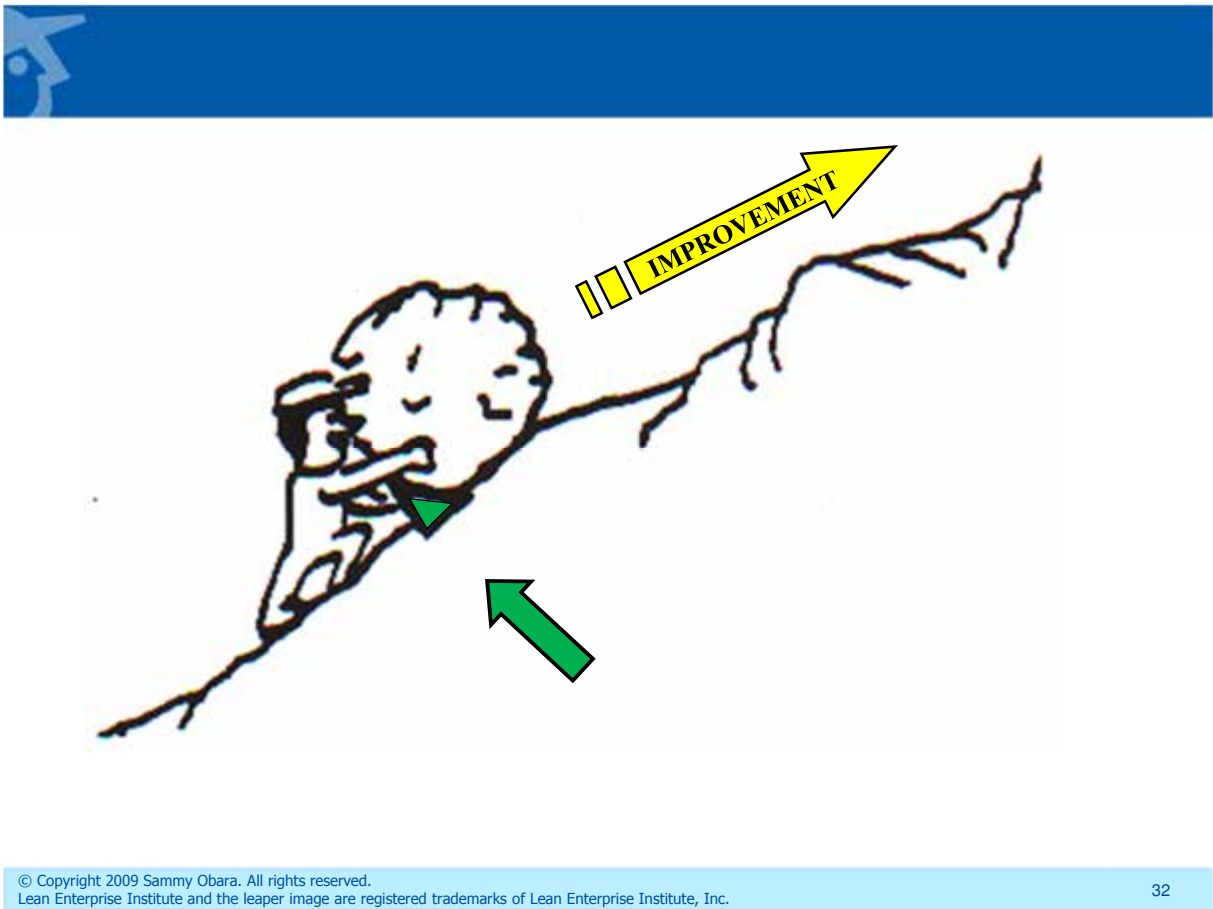
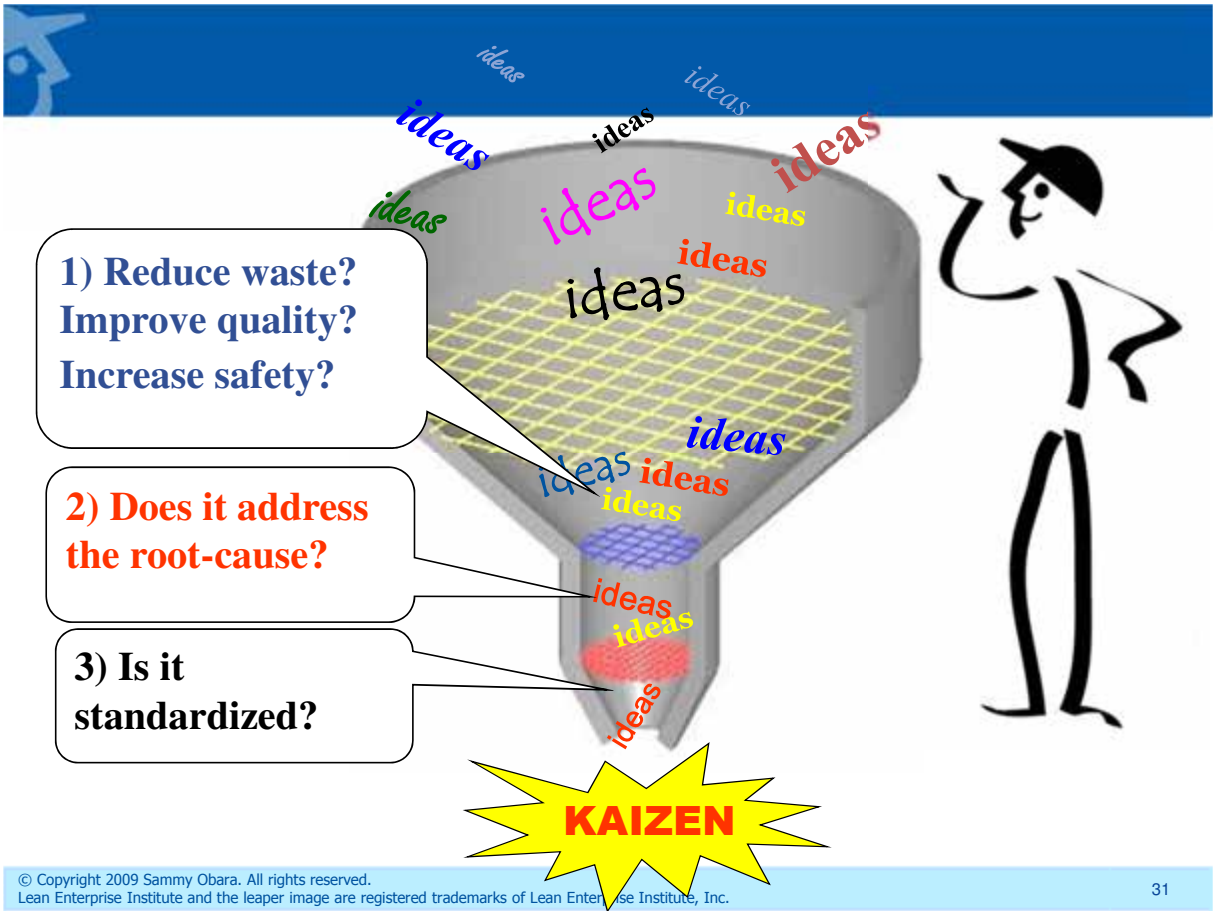
SOLUTION a: Shorten the length of the cable

SOLUTION b: Tape the cable on the wall

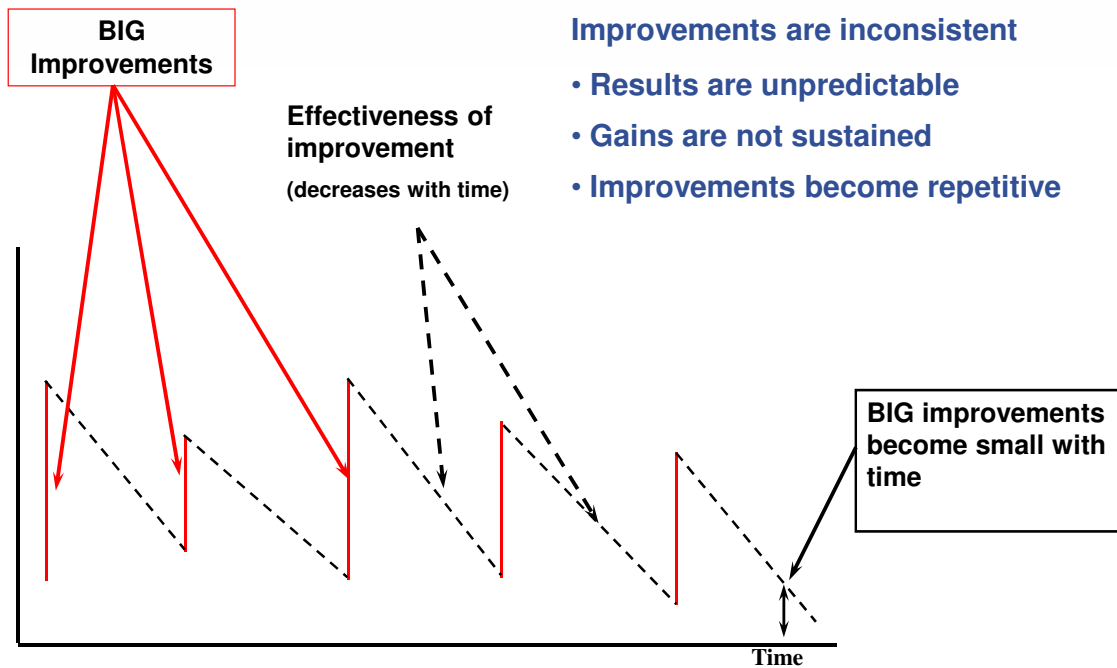
SOLUTION c: Bring the computer next to the outlet



~~SOLUTION: Plug it in!!~~

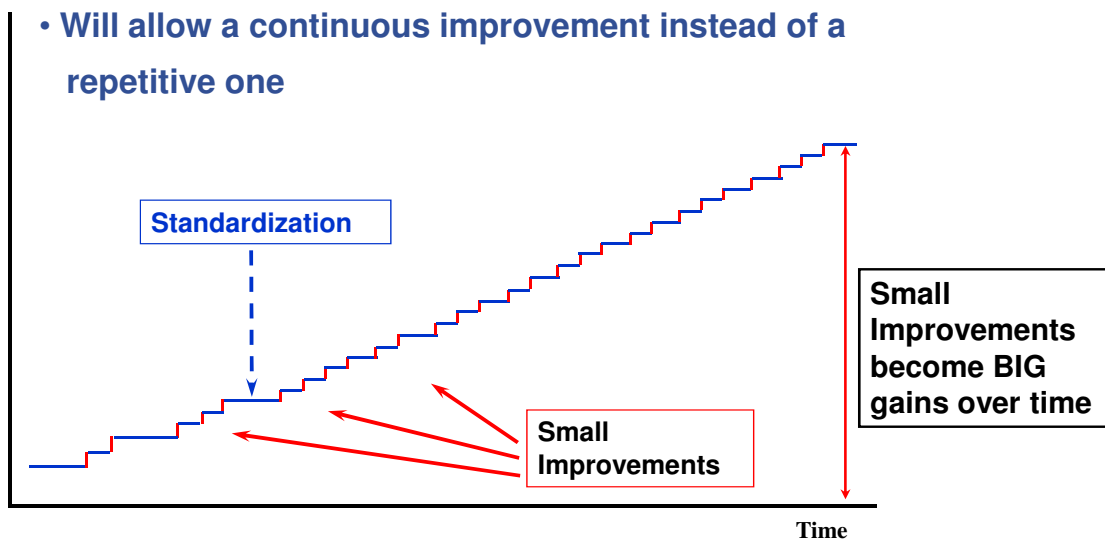


Without Standardization:



Standardization:

- Will make improvements consistent
- Will make results predictable
- Will ensure improvements stay in place
- Will allow a continuous improvement instead of a repetitive one



A

Small but Incremental Gains

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1 \$1,000.00	2 \$1,000.00	3 \$1,000.00	4 \$1,000.00	5 \$1,000.00	6 \$1,000.00	7 \$1,000.00
8 \$1,000.00	9 \$1,000.00	10 \$1,000.00	11 \$1,000.00	12 \$1,000.00	13 \$1,000.00	14 \$1,000.00
15 \$1,000.00	16 \$1,000.00	17 \$1,000.00	18 \$1,000.00	19 \$1,000.00	20 \$1,000.00	21 \$1,000.00
22 \$1,000.00	23 \$1,000.00	24 \$1,000.00	25 \$1,000.00	26 \$1,000.00	27 \$1,000.00	28 \$1,000.00
29 \$1,000.00	30 \$1,000.00	31 \$1,000.00				

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Is This a Kaizen?



1

Check if it addressed **AT LEAST** one of these areas:

Problem Type <input checked="" type="checkbox"/> Check all that apply	<input type="checkbox"/> SAFETY	<input type="checkbox"/> WASTE: <input type="checkbox"/> Overproduction <input type="checkbox"/> Inventory	<input type="checkbox"/> Waiting <input type="checkbox"/> Motion <input type="checkbox"/> Overprocessing	<input type="checkbox"/> Correction <input type="checkbox"/> Ideas not used <input type="checkbox"/> Conveyance
	Kaizen = improvement + standardization Kaizen deals with root causes			

A Kaizen must address Safety, Quality or Waste. If you can quantify the benefits, chances are you improved the issue.

Check if it addressed the **ROOT-CAUSE:**

2



A Kaizen **MUST** go after the real causes of the problem. Superficial remedies result in unpredictable results.

Check if it is **STANDARDIZED:**

3



A Kaizen will not roll-back with time. It will be sustained through standardization techniques.

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3K Principle

1. Kangae = Think

2. Kodo = Action

3. Kaizen = Improvement + standardization



Kaizen Teian Structure

- The form
- The board
- Evaluation metrics



Structure drives behavior

SAMPLE FORM

Kaizen Proposal Form
 Kaizen is a continuous improvement program. It is a method of encouraging individuals to improve their work environment.

Name: _____ **Location:** _____

Problem: _____

Proposed Solution: _____

Benefits: _____

Estimated Savings: _____

Implementation Date: _____ **Location:** _____

Prepared by: _____

Approved by: _____

Check one box: _____

Legend:

- Safety
- Quality
- Waste Reduction
- Motion
- Inventory
- Space Utilization
- Working
- Cleaning
- Transportation
- Inventory
- Working
- Cleaning
- Inventory
- Working
- Cleaning
- Inventory

Check one box:

- 0 - 25 Dollars (0.01 - 25.00) (Save 1000 - 25000)
- 26 - 50 Dollars (51 - 100) (Save 10000 - 25000)
- 51 - 100 Dollars (100001 - 250000) (Save 250000 - 500000)
- 101 - 250 Dollars (250001 - 500000) (Save 500000 - 1000000)
- 251 - 500 Dollars (500001 - 1000000) (Save 1000000 - 2500000)
- 501 - 1000 Dollars (1000001 - 2500000) (Save 2500000 - 5000000)
- 1000 Dollars or more (2500000 or more) (Save 5000000 or more)

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Source: Kaizen Teian 2 by Japan Human Relations Association



Kaizen Type <input checked="" type="checkbox"/> Check all that apply	<input type="checkbox"/> SAFETY	<u>WASTE:</u>	<input type="checkbox"/> Waiting	<input type="checkbox"/> Correction
	<input type="checkbox"/> QUALITY	<input type="checkbox"/> Overproduction	<input type="checkbox"/> Motion	<input type="checkbox"/> Conveyance
		<input type="checkbox"/> Inventory	<input type="checkbox"/> Overprocessing	<input type="checkbox"/>

Before

After

Brainstorm Kaizens to Gift Wrapping Process

Discuss the Kaizen criteria and 3K requirements

Select the Kaizen

Standardization



Kaizen Type <input checked="" type="checkbox"/> Check all that apply	<input type="checkbox"/> SAFETY	<u>WASTE:</u>	<input type="checkbox"/> Waiting	<input type="checkbox"/> Correction
	<input type="checkbox"/> QUALITY	<input type="checkbox"/> Overproduction	<input type="checkbox"/> Motion	<input type="checkbox"/> Conveyance
		<input type="checkbox"/> Inventory	<input type="checkbox"/> Overprocessing	<input type="checkbox"/>

Before

After

Standardization



***Never doubt* that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.**

Margaret Mead



Kaizen Board



Gerência Senior



Fábrica



Departamentos

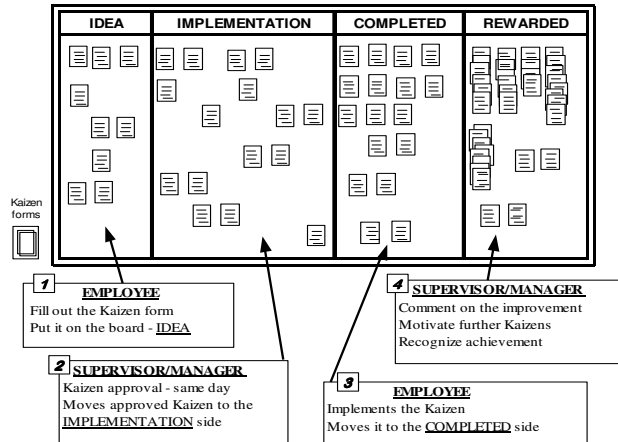


Escritórios

BOARD SAMPLE

The Kaizen board: To be used for display and sharing of the Kaizens in progress and completed. This is a learning tool and team promotion opportunity. It is the responsibility of management to create an environment of sharing and participation.

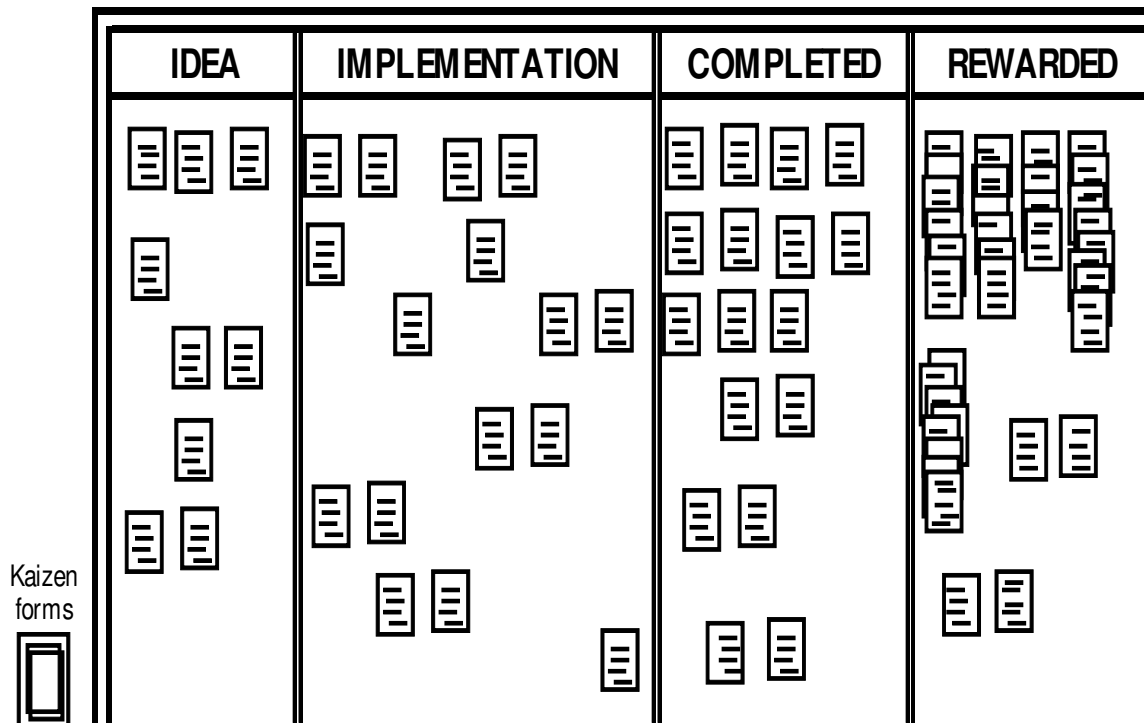
KAIZEN BOARD



"The task of the leader is to get his people from where they are to where they have not been."

Henry Kissinger

Kaizen Board



Level \ Dimension	So-so △	Good ○	Very Good ◎
Implementation/ effect	¥200	¥500	¥1,000 or more
Countermeasure (idea conception)	Participation bonus	¥200	¥500
Problem identification	Rejected	Participation award	¥200

Toyota Motor Corporation – Japan 2004

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Kaizen Evaluation Metrics originally developed Sept. 2000; 5th modification May 2001

CRITERIA	X	1	2	3	4	5	5
SAVINGS Savings per month; can be labor or material savings	2	< \$50	\$50-499	\$500-1,499	\$1,500-2,500	> \$2,500	> \$2,500
EFFECTIVENESS Sustainability; deals with root causes	2	Effective to implementer only	Effective to trained team members	Effective to any operator No training necessary	All root causes eliminated Nontrained operators can perform task easily	Error-proofing, documentation, standardization techniques ensure sustainability	Error-proofing, documentation, standardization techniques ensure sustainability
PAYBACK Use of internal resources; low implementation cost	1	Payback in 2 years	Payback in 1-2 years	Payback in 6-12 months	Payback in less than 6 months	Use of existing resources; falls within monthly budget	Use of existing resources; falls within monthly budget
EFFORT Thorough implementation	1	Single implementation, not duplicated in other areas	Duplicated in more than one area	Duplicated all over the plant	Duplicated in other plant(s); Minimum (1) one plant reached.	Duplicated in all plants. 100% of US plants reached	Duplicated in all plants. 100% of US plants reached
INITIATIVE	1	Suggested by supervisor	Copied from Kaizenland	Original solution, not shared with Kaizenland	Original solution, shared with Kaizenland	Teamwork, original solution shared with Kaizenland	Teamwork, original solution shared with Kaizenland

LEVEL	POINT RANGE	\$ VALUE	\$ VALUE
A	35	300	300
B	26-34	100	100
C	15-25	15	15
D	8-14	10	10
E	Up to 7	5	5

No rewards for:
 * Partial implementation
 * Ideas not implemented; intentions are not rewarded
 * Changes that do not improve safety, quality, or waste reduction

Notes:
 1. Kaizen bonus replaced with evaluation metrics procedure.
 2. Kaizen board looks at kaizens assigned an A or B before they are counted and rewarded. All levels of kaizens are board-reviewed for export selection.
 3. Two reward systems. First, immediate dollar reward based on kaizen level; reward is divided between contributors of each kaizen.
 4. Second, each contributor of a single kaizen will be awarded the total kaizen points received during evaluation (points will not be divided). Points will accumulate to 50 points. Those who have accumulated 50 points will be awarded \$0.50 for each kaizen point; that is, \$25 (50 points x \$0.50). Awards will be gift certificates.


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Revised 5-16-20... Revised 5-16-2001

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More and Better Kaizens

BETTER RECOGNITION
X
HIGHER REWARDS

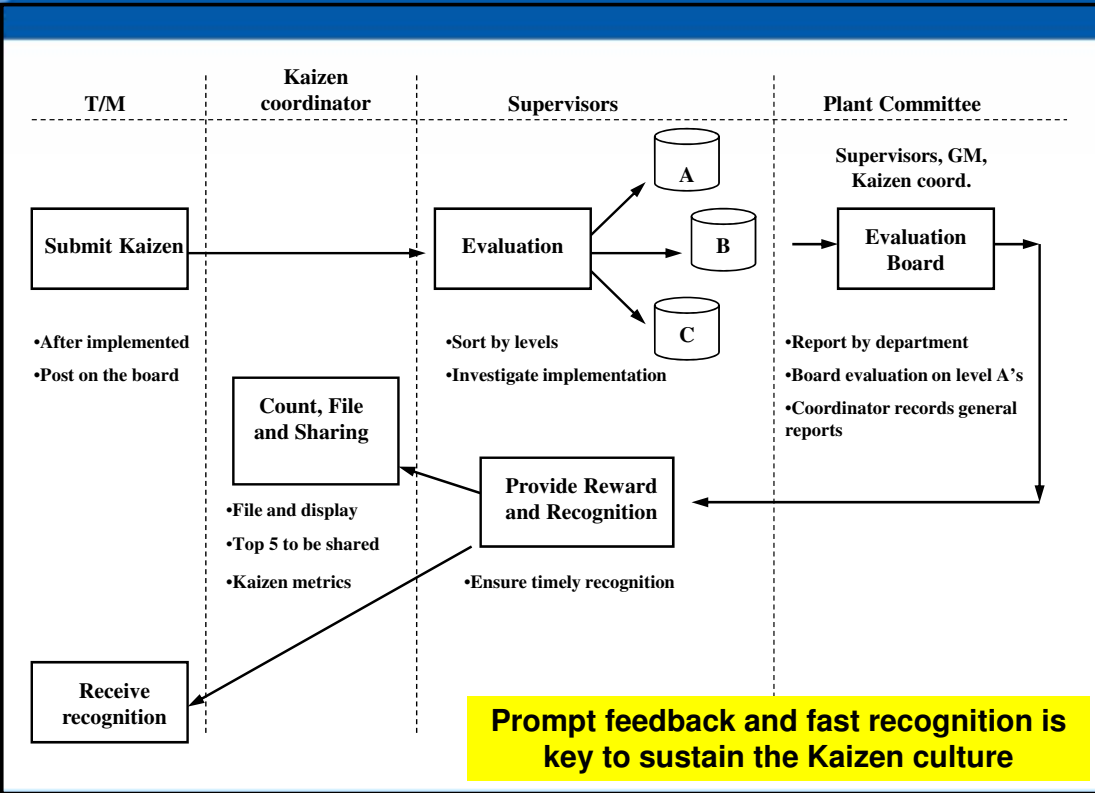


Level	POINT RANGE	\$ VALUE
A	35	300
B	26 ~ 34	100
C	15 ~ 25	15
D	8 ~ 14	10
E	Up to 7	5

CRITERIA	1	2
SAVINGS	2	1
EFFICIENCY	2	1
PAVBACK	1	2
EFFORT	1	2
INITIATIVE	1	2



Kaizen Results Evaluation Procedure





How Good is Your Kaizen?



How you coach will determine the future of the Kaizen System



How Good is Your Kaizen?

How Good is your Coaching?



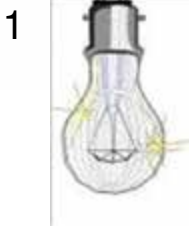
Team member will explain the future plan and

Supervisors will coach Kaizen contributors.

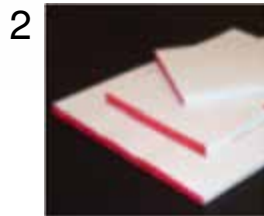
Others will coach supervisors on how to better coach.

Good Coaching, Good Kaizens

How Good is your Coaching?



Replaced burned light bulb by brand new one!



Made scratch paper out of misprints



Improved the quality of 1280 mold cavities



Shut off valve firmly



Put a tray to collect oil under the machine



Replaced leaking valve and gasket

How Good is your Coaching?

1. Replacing the light bulb in the stock room:
2. Making scratch paper from misprinted sheets:
3. Submitting multiple Kaizens for the multi-cavity improvement:
4. Shutting off faucet to eliminate waste of water:
5. Installing trays under the machines to collect leaking oil:
6. Replacing gasket to eliminate water leak:

Is This a Kaizen?



1 Check if it addressed **AT LEAST** one of these areas:

Problem Type <input checked="" type="checkbox"/> SAFETY Check all that apply	<input type="checkbox"/> WASTE: <input type="checkbox"/> Overproduction <input type="checkbox"/> Inventory Kaizen = improvement + standardization	<input type="checkbox"/> Waiting <input type="checkbox"/> Motion <input type="checkbox"/> Overprocessing Kaizen deals with root causes	<input type="checkbox"/> Correction <input type="checkbox"/> Ideas not used <input type="checkbox"/> Inconveyance
	<input type="checkbox"/> QUALITY		

A Kaizen must address Safety, Quality or Waste. If you can quantify the benefits, chances are you improved the issue.

2 Check if it addressed the **ROOT-CAUSE:**

A Kaizen **MUST** go after the real causes of the problem. Superficial remedies result in unpredictable results.

3 Check if it is **STANDARDIZED:**

A Kaizen will not roll-back with time. It will be sustained through standardization techniques.

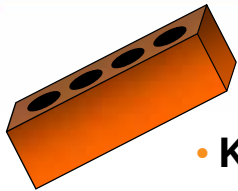
What is Culture?



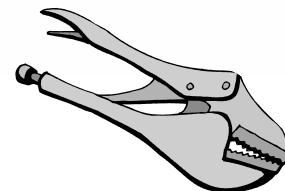
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What Culture is NOT



- Knowing which tool to use



- Using the right tool



- Using the tool correctly



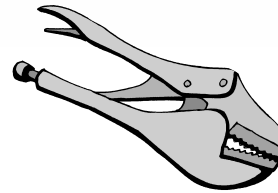
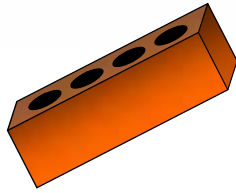
- Knowing where to use the tool



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What is Culture?



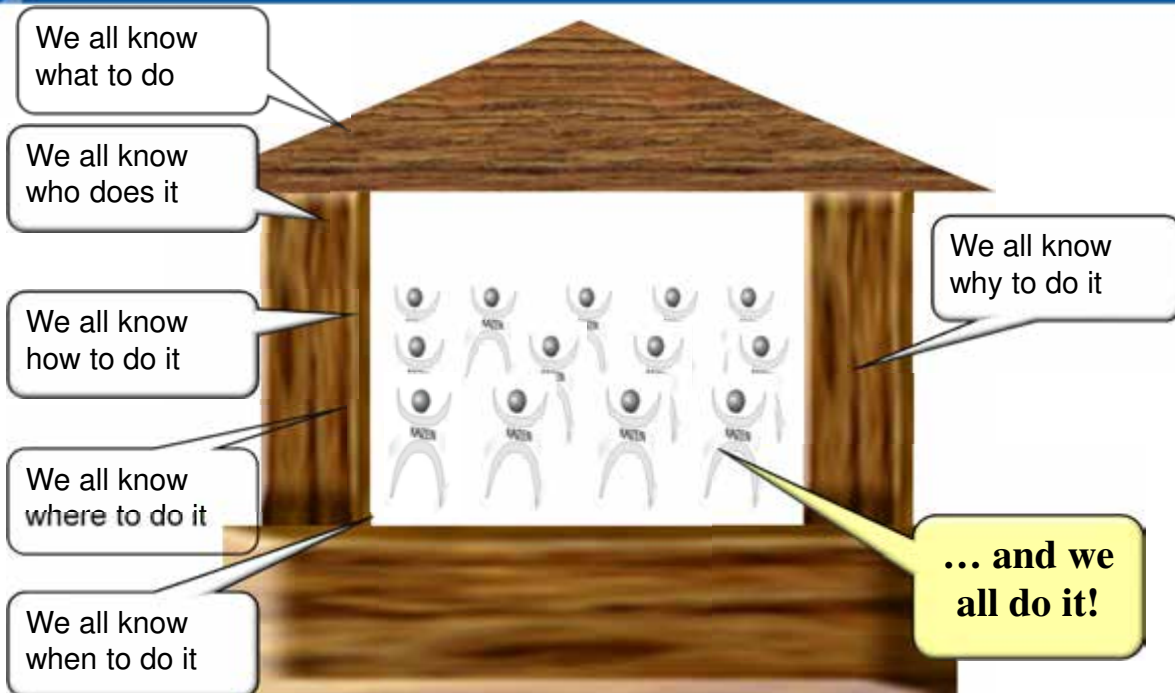
Beliefs, expectations and shared values


J. Gordon

Author of *A Diagnostic Approach to Organizational Behavior*



Lean Culture





	⚙️			
		⚙️		
			⚙️	
				⚙️

The True Kaizen Spirit

Finding the best way to do something is not enough.

Improving is not enough. It is not sustainable. It is not consistent. It is not predictable.

How can you ensure the best process is always followed?

Kaizen = Improvement + Standardization

			●	●	●
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Naboko is available at www.honsha.org

Kaizen Type <input checked="" type="checkbox"/>	<input type="checkbox"/> SAFETY	WASTE: <input type="checkbox"/> Overproduction <input type="checkbox"/> Inventory	<input type="checkbox"/> Waiting <input type="checkbox"/> Motion <input type="checkbox"/> Overprocessing	<input type="checkbox"/> Correction <input type="checkbox"/> Conveyance <input type="checkbox"/>
Check all that apply	<input type="checkbox"/> QUALITY			

Before

After

Standardization

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Workshop Feedback

Please fill out the workshop reflection and hand to your instructor. We value your feedback.



Workshop Reflection

Did you meet your learning goals for attending this class?
 If so, what did you learn?
 If not, what prevented you from learning?

What workshop material/activity was most useful?

What workshop material/activity was least useful?

Please evaluate instructor's knowledge and facilitation skills	Excellent	Good	Average	Fair	Poor
	10	7	5	3	1

Will you recommend this workshop to others in your organization?

What's your next step?

Are you interested in bringing this or any other workshop to your company's site?
 If so, who should we contact?

THANK YOU!
For more information about LEI's Educational programs, please visit www.leanenterprise.com
 or contact LEI at 617-571-2800

Continue Your Learning

The Lean Enterprise Institute (LEI) has a wide range of learning resources, all with the practical knowledge you need to sustain a lean transformation. Start making things better today.

Education

Faculty members with extensive implementation experience help you learn methodologies for making a critical leap from the conventional business focus on optimizing individual processes to the value-stream focus of optimizing the flow of value. Select courses that address topics ranging from lean fundamentals & tools to lean leadership, culture change, management systems and practices and many more.

Upcoming Workshops: 2017

- June 5-6 Palm Springs, CA
- June 13-14 Ontario, Canada
- June 13-15 Rochester, NH
- June 20-22 Memphis, TN

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Events

Every March the Lean Transformation Summit explores the latest concepts and implementation case studies from manufacturing to service companies. Other conferences focus on an issue or industry, such as starting a lean transformation or implementing lean in healthcare. Check lean.org for details and to get first notice of these limited-attendance events.



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Our plain-language books, workbooks, leadership guides, and training materials reflect the essence of lean thinking -- *doing*. They draw on years of research and real-world experiences from lean transformations in manufacturing and service organizations to give you tools that you can put to work immediately.

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