



CQI Learning Lunch

Lean Principles & Practices

"Finding Buried Treasure In Your Organization"

Host - Dennis Sergent
517-381-5330

February 9th, 2011
10:30 AM to 1:00 PM

University Club of Michigan State
3435 Forest Road, Lansing, MI 48909
517-353-5111



The CQI HAS EVOLVED!

The CQI Board of Directors has determined an updated vision and mission, as well as a new name behind CQI -



Capital Quality and Innovation!

Vision:

In 2020, CQI is recognized as a catalyst to expand knowledge and increase the capacity to serve and innovate, bringing together thinkers, leaders and doers from Michigan and the world.

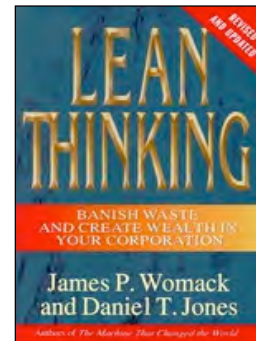
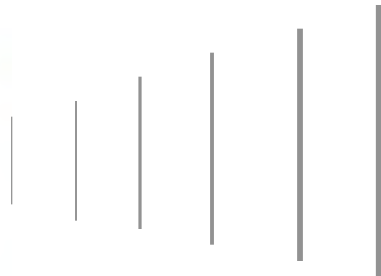
Mission:

To inspire learning, share successes, spark the energy and courage to lead our organizations to continually improve and innovate.

Look for more news on the transformation!

LEAN Thinking Principles

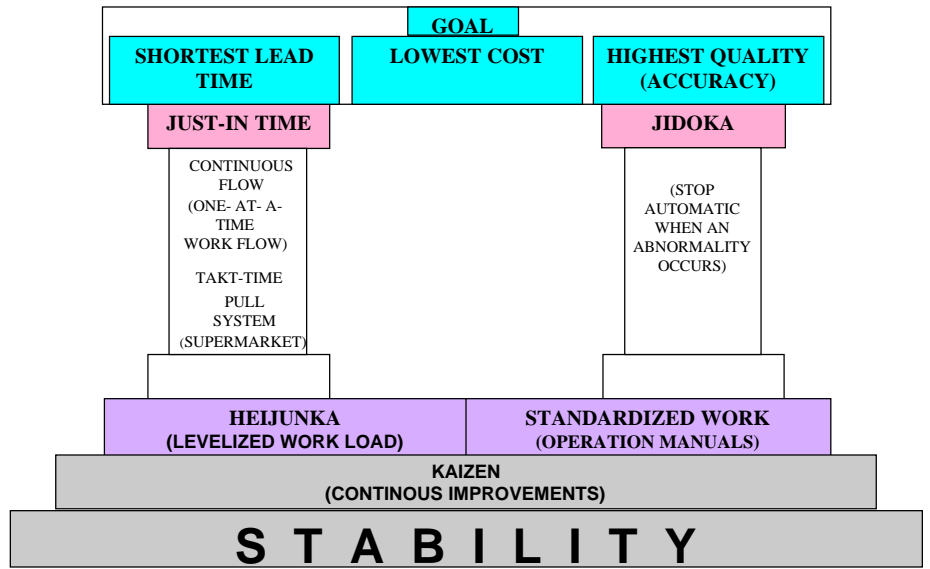
- Specify **value** in the eyes of the customer.
- Identify the **value stream** and eliminate **waste**.
- Make value **flow** at the pull of the customer.
- **Involve** and **empower** employees.
- **Continuously** improve in the pursuit of **perfection**.



Lean Checklist


- **Knowledge you need to start and sustain improvement**
 - Context
 - A History of Lean (and opposite - Waste)
 - Double Loop Learning
 - Related Quality Concepts
 - Thinking Challenges
 - Communications
 - Operating Definitions
 - Lean Principles & Rules
 - Value and Process
 - Flow and Pull
 - People
 - 5 Principles
 - 5 Ss of workplace and example of 5 Ps at home
 - 5 Ms (Manpower, Machines, Materials, Method and Measurements)
 - 10 Rules
 - Leaping From Thinking To Action
 - Leadership and Management Roles - Create Environment and Philosophy
 - Overcoming Organizational Issues
 - Everyone else lives in the processes and culture created
 - Manage the relationships
 - Ongoing, Sustainable Resources

The House Toyota Built




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5



Lean



- Includes a variety of continuous improvement tools:
 - Focus on Process and value
 - Flowcharting or process mapping
 - 5 S concept
 - Changeover reduction
 - Constraint Management
 - Continuous Improvement (Kaizen)
 - Rapid Improvement Events
 - Workplace (Gemba)
 - Tangible Artifacts of the Work (Genchi Genbutsu)
 - Elimination of 7 kinds of waste

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6



What is the Aim?

Learn how to implement Lean services, products & processes

- Service, Products, Processes, Programs & Projects
- Planning, Marketing, Selling, Delivery
- Administrative Functions too
- Anything which adds value

Learn what you can do with Lean principles & practices

- Reduce, eliminate non-value added activities
- Improve anything affecting productivity

Desired Results

- Lean Processes
 - Promote the flow of services, products, value
 - And information
- Develop Resources (People)
 - Able to sustain improvements

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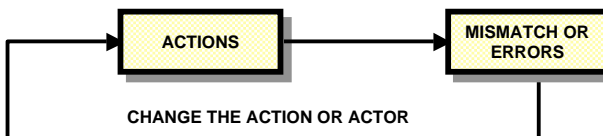
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7



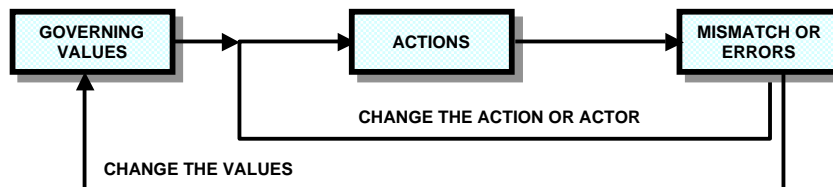
Single Loop Learning - Double Loop Learning

SINGLE-LOOP LEARNING



Invalid or Incomplete Information - Ineffective Roles & Policies, Designed Errors = *Fix Blame*

DOUBLE-LOOP LEARNING



Valid Information - informed Choices - Monitored Implementation = *Fix System*

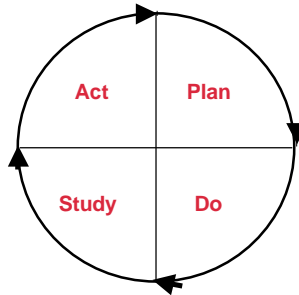
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8

P-D-S-A Cycle (Deming)

- We **PLAN** what we want to accomplish over a period of time and what we will do to get there.
- We **DO** something that furthers the strategies and goals developed in our plan.

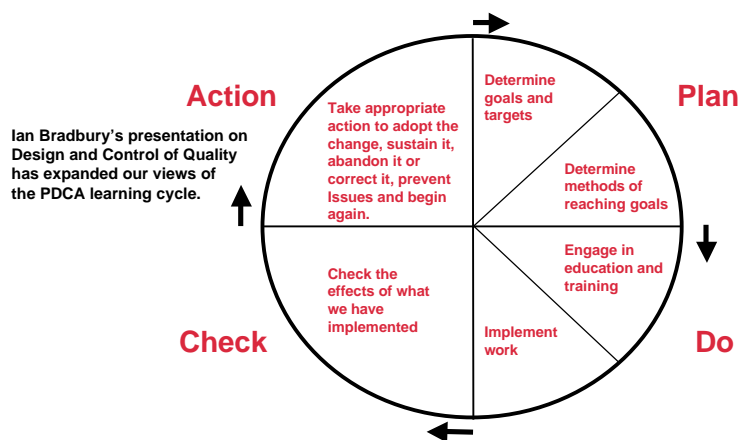


We **STUDY (Check)** the results of our actions to make sure we achieve what we plan.

We **ACT** by developing procedures to ensure our plans continue to be successful and by changing what is needed to achieve the initial goals.

P-D-C-A - Proceed With Control

- We **PLAN** what we want to accomplish over a period of time and what we will do to get there.
- We **DO** something that furthers the strategies and goals developed in our plan.



We **CHECK (Study)** the results of our actions to make sure we achieve what we plan.

We **ACT** by developing procedures to ensure our plans continue to be successful and by changing what is needed to achieve the initial goals.



Deming's 14 Points For Management

Key to understanding the 14 Points is *variation*. The more variation - the more waste, Deming's 14 points are paraphrased here:

1. **Create constancy of purpose towards improvement.**
 - Replace short-term reaction with long-term planning.
2. **Adopt the new philosophy.**
 - Management should walk the talk.
3. **Cease dependence on inspection.**
 - Reduced variation eliminates need to inspect for defects.
4. **Move towards a single supplier for any one item.**
 - Multiple suppliers mean variation between feedstocks.
5. **Improve constantly and forever.**
 - Constantly strive to reduce variation.
6. **Institute training on the job.**
 - Adequately trained staff will all work the same way, and reduce variation.
7. **Institute leadership.**
 - Mere supervision is quota- and target-based
8. **Drive out fear.**
 - Long term, it prevents workers from acting in the organization's best interests.
9. **Break down barriers between departments.**
 - Use the 'internal customer', that each department serves other departments that use its output.
10. **Eliminate slogans.**
 - It's not people who make most mistakes - it's the process they are working within.
11. **Eliminate "management by objectives".**
 - Deming saw production targets as encouraging the delivery of poor-quality goods.
12. **Remove barriers to pride of workmanship.**
 - Many of the other problems outlined reduce worker satisfaction.
13. **Institute education and self-improvement.**
 - Harassing the workforce without improving the processes they use is counter-productive.
14. **The transformation is everyone's job.**
 - "You do not have to do this. Survival is not compulsory."

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11



What Can You Do?

- **Be comfortable with;**
 - **Learning & PDSA Cycle**
 - Productive Reasoning
 - **Managing by Fact**
 - Data drives decisions
 - **Value to Customer, Team and Owner**
 - Cooperative processes
 - Middle management support
 - Involvement by all employees
 - Customer perception of value
 - **Commitment to Quality**
 - Time and resources
 - Action Consistent With Words

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12



What Are The Benefits of Lean?

- **Fosters innovation & competitive position**
 - Lowers resistance to change
 - You are inventing the change
- **Closely couples management and workforce and customers**
 - Better teamwork and value
- **Increased capacity**
 - Less wasted time, effort and materials
- **Increased productivity of every dollar invested**
- **Increased customer satisfaction & loyalty**
 - And employee satisfaction too
- **Lean Quality is Free**
 - IT DOES NOT COST MORE IF YOU BUILD IT IN AND KEEP IT IN
 - IT COSTS LESS

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13



Principles of Continuous Improvement

- **Directly observe work as activities, connections, & flows**
- **Eliminate waste systemically and systematically**
- **Establish high agreement of what & how**
- **Solve problems systemically and systematically**
- **Create a learning organization**



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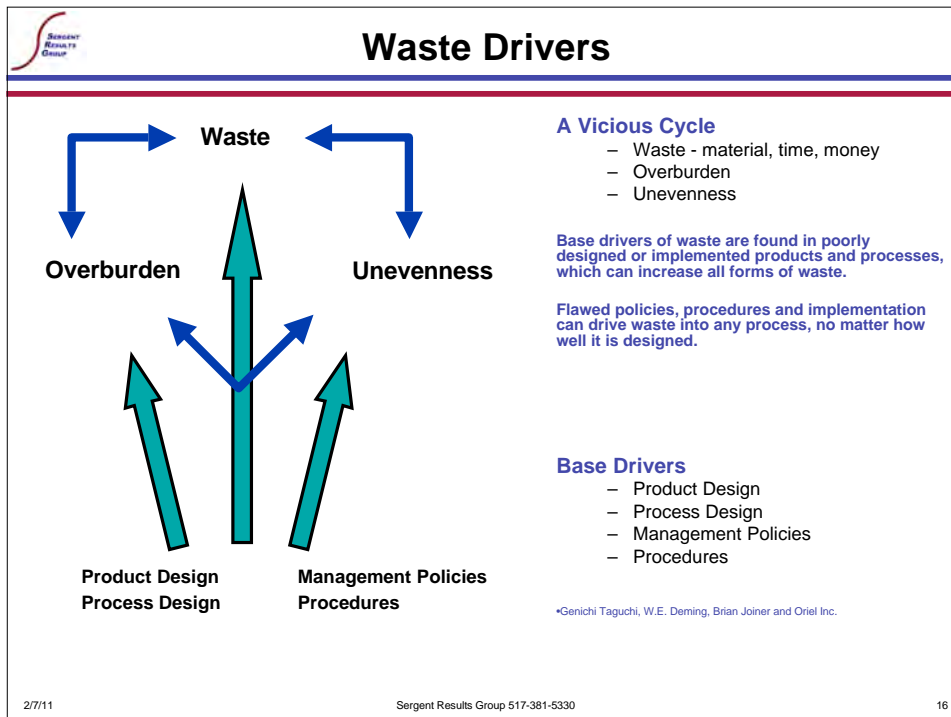
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What is Waste?

Definition

- Everything that increases the cost of work without making a useful contribution to our activities.

$$\boxed{\text{PHYSICAL MOVEMENT}} - \boxed{\text{VALUE ADDED WORK}} = \boxed{\text{WASTE}}$$



Lean - 10 Rules

1. Eliminate waste
2. Minimize inventory
3. Maximize flow
4. Pull production from customer demand
5. Meet customer requirements
6. Do it right the first time
7. Empower workers
8. Design for rapid changeover
9. Partner with suppliers
10. Create a culture of continuous improvement



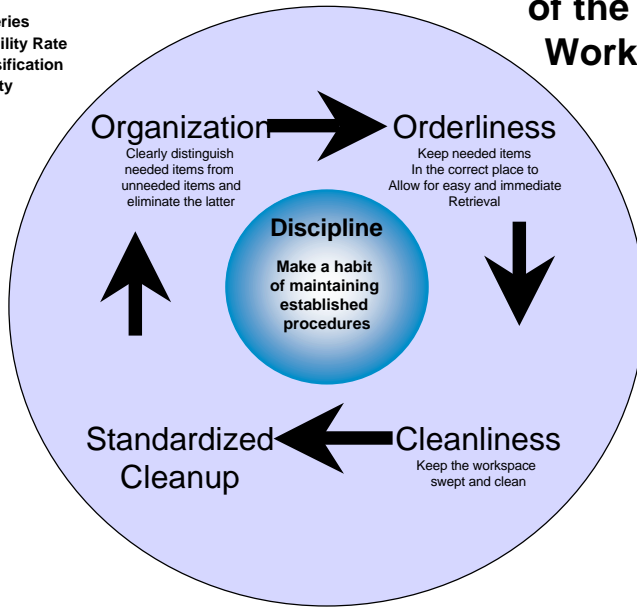
Five (5) S's (and 5 P's)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Sort <ul style="list-style-type: none"> • Ensure each item is in its proper place • Near the place where it is used most • If not used "there" move it or remove it 2. Set In Order <ul style="list-style-type: none"> • Arrange materials and equipment so they are easy to find and use 3. Shine <ul style="list-style-type: none"> • Clean the area for safety • Makes it easier to spot maintenance and sustainability issues before they become a problem 4. Standardize <ul style="list-style-type: none"> • Formalize procedures and practices • Create consistency • Ensure everything is done correctly 5. Sustain <ul style="list-style-type: none"> • Keep the process going through <ul style="list-style-type: none"> • Training • Communications • Organizational Structures | <ol style="list-style-type: none"> 1. Prepare <ul style="list-style-type: none"> • Ensure each item is in its proper place • Near the place where it is used most • If not used "there", we move it or remove it • We prep from the front door inward 2. Placement <ul style="list-style-type: none"> • Arrange stuff so it is easy to find and use • Immediately put away what we bring in • Our space is sacred • So is your individual space 3. Present <ul style="list-style-type: none"> • Clean the area for safety & visitors • Spot issues before they become problems • Clean up after ourselves 4. Process <ul style="list-style-type: none"> • Culture's procedures and practices • Work problems together • Create consistency • Ensure everything is done correctly 5. Practice <ul style="list-style-type: none"> • Keep the process going with <ul style="list-style-type: none"> • Respect • Communications • Helping & Learning • Organizational Structures |
|---|--|

Key Outcomes

- Higher Quality
- Lower Costs
- Reliable Deliveries
- Higher Availability Rate
- Product Diversification
- Improved Safety

5S – Five Pillars of the Visual Workplace



5S Checklist

- A way for teams to evaluate their work areas for conformance to the 5S model
- Provided by Michael Goree

5-S Checklist - Workplace Evaluation

TEAM: _____
 AREA: _____
 DATE: _____



# of Problems	Rating Level
5 or more	0
3 to 4	1
2	2
1	3
None	4

Category	Item	Score
Separation	Clearing Up The Area	
	Unneeded equipment, tools, furniture, etc. are present	
	Unneeded items are on walls, bulletin boards, etc.	
	Items are present in aislesways, stairways, corners, etc.	
	Unneeded inventory, supplies, parts, or materials are present	
Simple Sequence	Organizing	
	Correct places for items are not obvious	
	Items are not in their correct places	
	Aislesways, workstations, equipment locations are not located	
	Items are not put away immediately after use	
Spotless	Clearing	
	Floors, walls, stairs, and surfaces are not free of dirt, oil and grease	
	Equipment is not kept clean and free of dirt, oil, and grease	
	Cleaning materials are not easily accessible	
	Lines, labels, signs, etc. are not clean and unbroken	
Sanitized	Wash and Clean	
	Necessary information is not available	
	All standards are not known and visible	
	Checklists don't exist for all cleaning and maintenance jobs	
	All quantities and limits are not easily recognizable	
Systematic	Training and Discipline	
	How many workers have not had 5-S training?	
	How many times, last week, was daily 5-S not performed?	
	How many times that personal belongings are not neatly stored	
	Number of times job aids are not available or up to date	
Number of times, last week, daily 5-S inspections were not performed		
TOTAL		

MACI's 5-S

- **“A place for everything.....”**
 - 1S = Separation(clearing up the area)
 - sort and eliminate unnecessary items
 - 2S = Simple Sequence(organizing)
 - put necessary items in order for easy access
 - 3S = Spotless(clearing)
 - keep your work area and machines clear
- **“And everything in its place”**
 - 4S = Sanitized(wash and clean)
 - wash necessary parts and dispose of all dangerous chemicals safely
 - 5S = Systematic(training and discipline)
 - spread the previous 4 steps through training and discipline

5-S In The Office (Example)

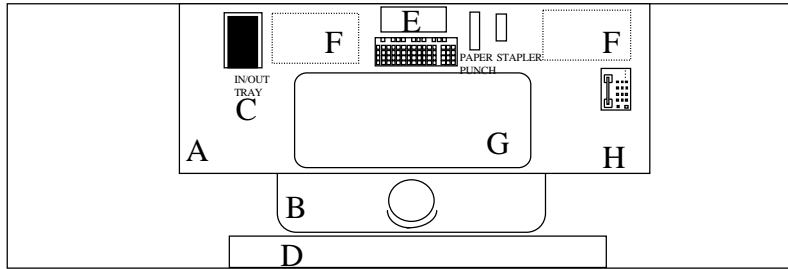
Owner of response :		
	Condition	Eval.
Desk Area	 <p style="font-size: small;">Comments:</p>	○
Credenza Area	 <p style="font-size: small;">Comments:</p>	✕
Other		○
Audit Result :		△

5-S In The Office (Example)

MONTH: May '02

OFFICE 5-S BREAKDOWN

#	ITEM	FREQUENCY	METHOD	#	ITEM	FREQUENCY	METHOD
A	TABLE TOPS	DAILY	CLEARING	E	PERSONAL AREAS	DAILY	CLEANLINESS
B	FLOOR/PAD	DAILY	ARRANGEMENT/CLEARING	F	WORK AREA	DAILY	CLEARING
C	IN/OUT TRAYS	DAILY	ARRANGEMENT/CLEARING	G	PC KEYBOARD/MONITOR	BI-WEEKLY	SWEEPING/WASHING
D	CREDENZA	DAILY	ARRANGEMENT/CLEARING	H	PHONE & CHAIR	MONTHLY	SWEEPING/WASHING



THE PERSON RESPONSIBLE WILL INITIAL BOX EVERY DAY (EXAMPLE - RK)
IF ON VACATION, MARK "X" ON THE SPOT. ACTIVITIES WILL CEASE FOR THE DURATION

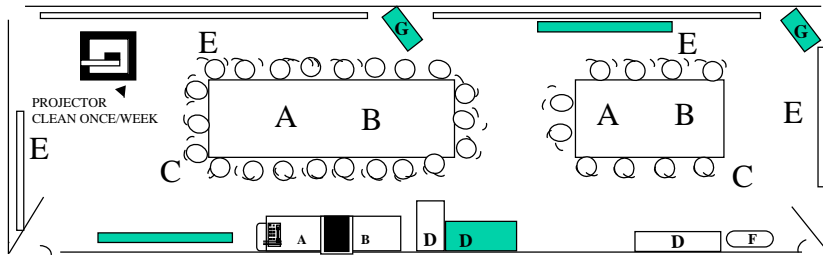
NAME	5 "S" AREA	ACTIVITY TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	ALL AREAS	E.O.D.																															

5-S In The Office (Example)

MONTH: May '02

MEETING ROOM 5-S BREAKDOWN

ITEM	FREQUENCY	METHOD	ITEM	FREQUENCY	METHOD	
A	TABLE TOPS	DAILY	E	BOARDS	DAILY	CLEARING
B	WORK AREAS	WEEKLY	F	TRASH	WEEKLY	EMPTY
C	CHAIRS	DAILY	G	TELEVISION / VCR	WEEKLY	DUSTING
D	CABINETS	WEEKLY	H	CARPETING	WEEKLY	VACUUMING



ASSOCIATE	AFTER MTGS.	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	
	DAILY CHECK																																

THE PERSON RESPONSIBLE WILL INITIAL BOX EVERY DAY (EXAMPLE - JL) - IF ON VACATION MARK "X" ON THE SPOT. ACTIVITIES WILL BE REASSIGNED BY MGR.
COMMENTS:



David Langford's Points For Quality Learning

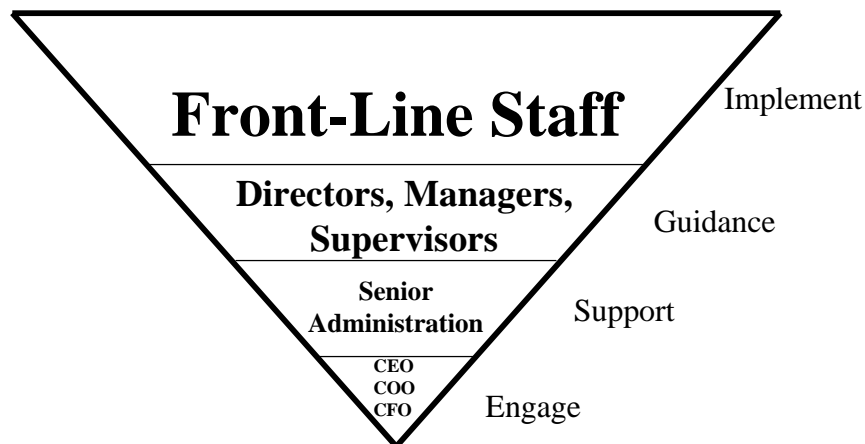
1. Start Planning Strategies with People instead of for people.
2. Start teaching learners how to assess their own work and progress.
3. Form teams out of improvement needs, but not of the need to form teams.
4. Only give a test to find out what to do next.
5. Take the names off tests and chart results to measure the system's performance, not the individual's performance.
6. The size of a team depends on the complexity of the problem or opportunity for improvement.
7. Take action to improve. Avoid the practice of giving only lip service to quality improvement.
8. Understand that you are at the top of your system.
9. Reduce waste in learning by minimizing the loss of human potential.
10. Focus on improved, documented learning, not on improved rankings and ratings.
11. Trust the process of improvement PDSA (Plan-Do-Study-Act).
12. Reduce dependency on testing and textbooks to achieve quality in learning. Rely instead upon improving the processes of the learning experience.
13. Create methods to encourage and track lifelong learning.
14. Focus on the system/process, not the individual.
15. Understand that people do not resist change; they resist being changed.
16. Go upstream in the process to prevent poor quality.
17. Improve systems by first improving the largest system over which you have influence, then modify the containing systems to produce even greater results.
18. Understand what to improve in relation to the purpose and vision of the organization.
19. Understand the leadership role of the facilitator.
20. Understand the colleague and society relationships.

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25

New Organizational Roles



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26



Simplicity Checklist

- **Make simplification a goal, not a virtue**
 - Include simplicity as a theme of the organization's strategy
 - Set specific targets for reducing complexity
 - Create performance incentives that reward simplicity
- **Simplify organizational structure**
 - Reduce levels and layers
 - Increase spans of control
 - Consolidate similar functions
- **Prune and simplify products and services**
 - Employ product portfolio strategy
 - Eliminate, phase out or sell low-value products
 - Counter feature creep
- **Discipline business and governance processes**
 - Create well defined decision structures
 - Boards, councils, committees
 - Streamline operating processes
 - Planning, budgeting, marketing, selling, servicing, manufacturing, etc.
 - Involve employees at the grassroots level
- **Simplify personal patterns**
 - Counter communications overload
 - E-Mails, phone calls, texting, Instant Messaging, Memos, PowerPoints
 - Manage meeting time
 - Collaborate across organizational boundaries

Simplicity-Minded Management -
A practical guide to stripping complexity out of your organization.

By Ron Ashkenas,

Harvard Business Review

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27



Six Sigma - 10 Rules That Synch With Lean & Quality

1. View performance from the position of the customer
2. Understand the process
3. Make decisions based on data and analysis
4. Focus on the most important issues
5. Use statistical models
6. Pay attention to variation
7. Use standard methodologies
8. Select projects for financial impact
9. Establish project governance structure
10. Enlist senior management support



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28

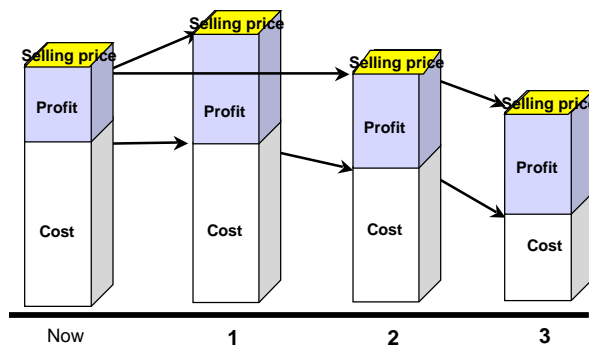
If our organization handles 7,000,000 data points each year and we hit a 97% success rate (current target) we will have 210,000 errors

MACI will have 14 errors .

The Plain Truth is Making a Profit.....

3 basic ways of increasing profit

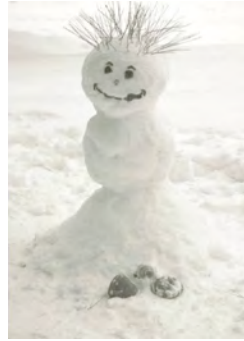
1. Increase selling price ----- You may lose your market share because of a more expensive product.
2. Reduce the cost ----- It is possible with cooperative efforts and waste elimination.
3. Reduce both cost and selling price ----- This gives you the most competitive prices and allows you to sell more product



By Eliminating Waste, we then can achieve “World Class Performance”

CAVEman and ICEman

When we attempt to introduce any type of change, we face two arch villains



We may think the CAVEman is our greatest villain. **[Citizens Against Virtually Everything]**. But our real villain is the ICEman **[It's Close Enough]** and we face that villain every day!



Lunch!

LET'S COLLECT OUR LUNCH!

- Room will be secure
- Staff will take your drink orders
- While you dine, discuss this
- Make sure everyone is heard from
- Be prepared to share your answers to the following questions!

AT EACH TABLE DISCUSS:

- What are our next action steps?
- What did I learn here?
- What do we need to discuss next?
- Who else should be here?
- What will we do with this learning?
- When do we meet again?



TABLE DISCUSSIONS

AT EACH TABLE DISCUSS:

- **WHAT ARE OUR NEXT ACTION STEPS?**
 - What did I learn here?
 - What do we need to discuss next?
 - Who else should be here?
 - What will we do with this learning?
 - When do we meet again?

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33



Future Agenda

Future Discussions = 3 Weeks + 1 Weekday

- **March 10th, 2011 = PDSA - In More Detail**
 - **April 1st, 2011 = Quality Tools & Processes (Beth Lienhart)**
 - **April 25th, 2011 = Discussing The Un-Discussable (Robin Cleveland)**
 - **May 17th, 2011 = System of Profound Knowledge**
 - **June 8th, 2011 = Overcoming Roadblocks**
 - **June 30th, 2011 = Innovation and It's Alternatives**
- **What Are Your Ideas? -- Now on following slide!**

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34



Other Subject & Speaker Suggestions

- Attitude - Choosing & Demonstrating Your Attitude
- Benchmarking
- Brainstorming
- Business as "Family"
- Civility - Lack of it Costs up to \$300 Billion Annually (Pattie McNeil)
- Comparisons of Quality Management Systems
- **Complexity & Leadership** (John Victory)
- Continuous Improvement (Kaizen)
- Design & Control of Quality (Ian Bradbury of Peaker Services, Inc.)
- Effective Measurement for Training & Development Initiatives
- Gipsie Ranney
- Having Difficult Conversations - Principles and Tools
- Influence (Influencing Your Leader and Your Team)
- InThinking, Investment Thinking, Thinking Roadmap
- Lean Project: Eliminating the Waste In Performance Reviews (R. Steele of Peaker Services)
- **Mentoring & Partnership Between Generations** (Baby Boomer, GenX, GenY, Transition to Future)
- **Neuroscience & Leadership** (John Victory)
- **Open Book Management and Employee Entrepreneurship** (Jack Stack, SRC, Zingerman's) (Mary Zeigler)
- Quality Assurance Through Proofing
- Six Sigma - Pros and Cons
- **Thinking Geometrically - Synergistics and Bucky Fuller** (Bill Knapp)
- Training vs. Learning - What Makes The Difference in Performance?

What Are Your Ideas? We will take a vote to schedule according to interest!

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35



CQI LEARNING LUNCH

Lean Principles & Practices

Finding Buried Treasure In Your Organization

