Lean is about Employee Engagement

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CORNING

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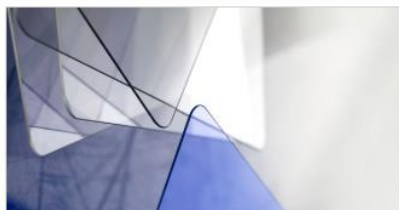
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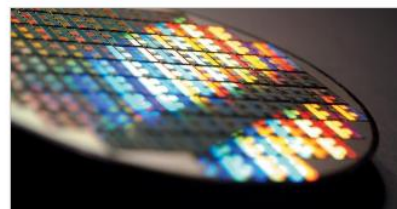
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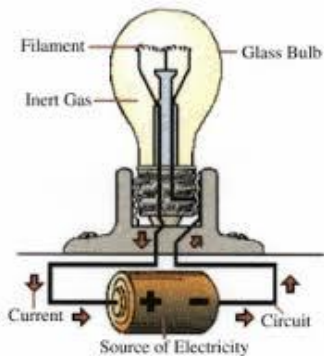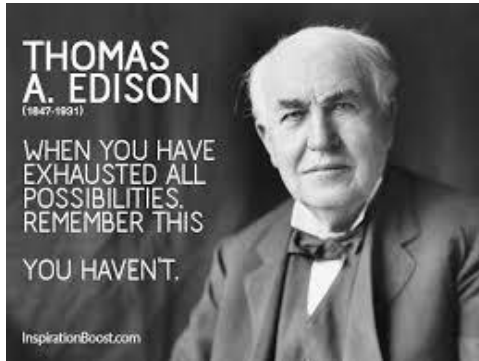
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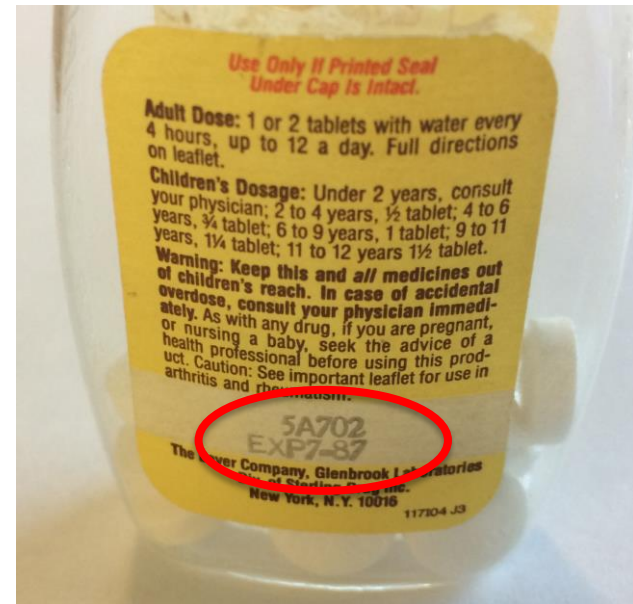Advanced optical solutions for state-of-the-art technologies.

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Corning Glass Works (history)

Job satisfaction

What is Engagement?

- Listening
- Respect for all employees
- Employee feedback
- Openness
- Culture
- Problem solving
  (constant elimination of waste;
   continual improvement in flow)

Lean is about Culture*, not tools

*Culture: how people think, behave, act, and respond to problems and rewards on a daily basis   by Cliff Ransom

How Did I Learn About Engagement?

The tools!

Luckily, I had some very good teachers....

Sensei

Chihiro Nakao
Shingijutsu Co., Ltd.

Sensei - Nagamatsu

Sensei - Kurosaka

"Making mistakes leads to success – You try too hard <u>not</u> to make a mistake. It's faster to try, fail, and learn."

"Move from the rabbit line - test, rest, fall asleep – to tortoise, slow steady moving without stopping; everyone can respond & take action"

"It is easy to make things difficult (complicated), but difficult to make things easy"

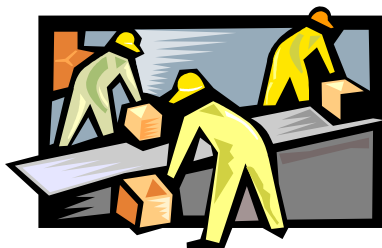"I won't tell you the answer; you must come up with the answer. If I give you the answer, you will only do that. Get the great ideas from your workforce."
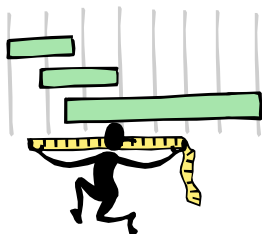
"Understand problems – keep trying to understand; when you think you understand, you stop growing"

How Does a Leader Engage?

Interaction with employee's:

1. Maintain flow

2. Manage improvement

3. Teach

4 Rules of Engagement

1. Safety first

2. Make a rule, keep a rule

3. Small steps

4. Simple is best

Rules of the Road

Where we Started

- Past philosophy: build, build, build (rabbit line)
- Performance Issues:
    - WIP Inventory 1-2 months of supply
    - Rework: 1-2++ weeks worth of units
    - Assembly LT: 2 – 4 weeks
    - Assembly CT: less than 1 day
- Low Morale
- OT on a regular basis (especially end of quarter)

Now to Engage the Employees!

- But how?

- What do I do to get started?

Continuous Improvement – Engage the Shop Floor

1. What will make your job better?

2. What ideas do you have to improve your area?

Walk the floor: every idea received an answer (if no, why not)

Goal is to build interaction with line leaders (Group Leaders and 1st line supervisors)

Gemba

## My Leader Standard Work for Employee Engagement.....

Standardized Work Chart			Takt Time	Cycle Time	5S Checklist	TPM Checklist	Kanban process	Lineside Supermrk		GL	GL	GL	GL	Supv
Process Name:														
John Biuso's Gemba			2 hours		★	✚								
Scope:	From: Quintel		To: Shipping							Date	6/3/13			

No	Operation Name	Owner	Mgr Sign-off	Time Manl	Walk
1	Check Email; print 2nd Shift Test Passdown	Biuso		20	
2	Supervisor discussion (30 min each)	B & S		60	
3	Attend Morning Meeting	Graham		15	
4	Review White Board of active jobs	Smith		5	
5	Area 2 Station 5-S Checklist	Thomas		2	
6	Area 5 Day by Hour Board	Phillips		5	
7	Degreaser Process Control Chart	Raleigh		2	
8	Finished Goods Supermarket	Hill		3	
9	Review NPI Board	Rogers		8	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Key Points		Totals		
			120	
3	Action Item Register?			
4	What jobs are running? Due? A / B?			
5	Cklist completed? Items done?	**Everywhere:**		
6	Where is constraint? All rates filled in?	Safe (people, process, produ		
7	Date fluid changed? Control Limits?	Quality risks?		
8	Levels? Cards in collection post?	Material flowing or stagnant?		
		In control?		
		Visual?		
		Supervisor's ck'g that job desc		
		being followed?		

Engage Employees with Visual Controls

By Shift:

- Units produced vs target

- Pass / Fail

- Reason for Fail

Smalltown Teens With Cells Phones
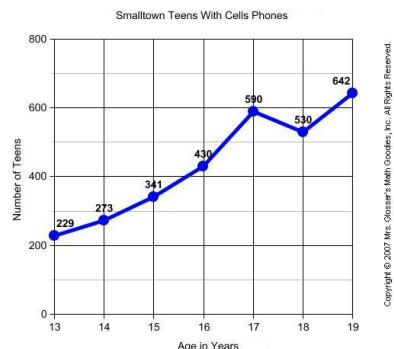
✓ Employees wanted to know if we were on track, and which issues were more prevalent

✓ Info collected, posted, plotted at each process step by Group Leader

5-S: what's needed to do the work?

Listen to the Operator!

5-S checklist (or photo) <u>unique to each</u> area – target condition to restore

Follow up / implementation of many ideas

The operator gets to arrange the furniture in their living room!

Feedback from Employees

1. Process is difficult (different problems every day)

2. The shop Floor is cluttered (inventory on the floor)

Time to create a Current State Value Stream Map (CS VSM)

Employees Created Key Product VSM

yellow = assembly
pink = inventory
green = visual inspect
blue = test
purple = info flow (& transport)

- Conducted on shop floor (posted on wall)
- It told a story – test / inspect & inventory!
- Process instability (engage the Engineers)

Inventory was getting in the way

Remember 1 – 2 months of WIP?

- 4 sub-assemblies (A, B, C, D)

- Trays (with sub-assembly) stored on "bread carts"

- Trays not labeled, carts not labeled (BUT every sub-assembly had a traveler!)

- Implemented kanban (with labels!) min-max

Employees were frustrated searching for product

Engage the Engineers

- Process instability identified from VSM

- Engineers supported the Operators

- Create a repeatable, consistent process to build the gap

Remember 1 – 2 weeks of rework?!

Simple is best!

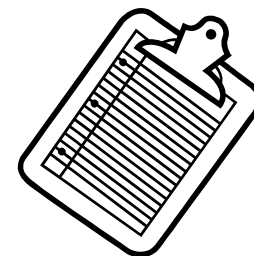Employees could now consistently perform this process step

Standard Work – Support the Worker

Worked with employees to create initial standard work (shop floor data)

Documented 1 best way (basis for improvement)

Make problems visible, and have resources available to respond immediately to support the worker
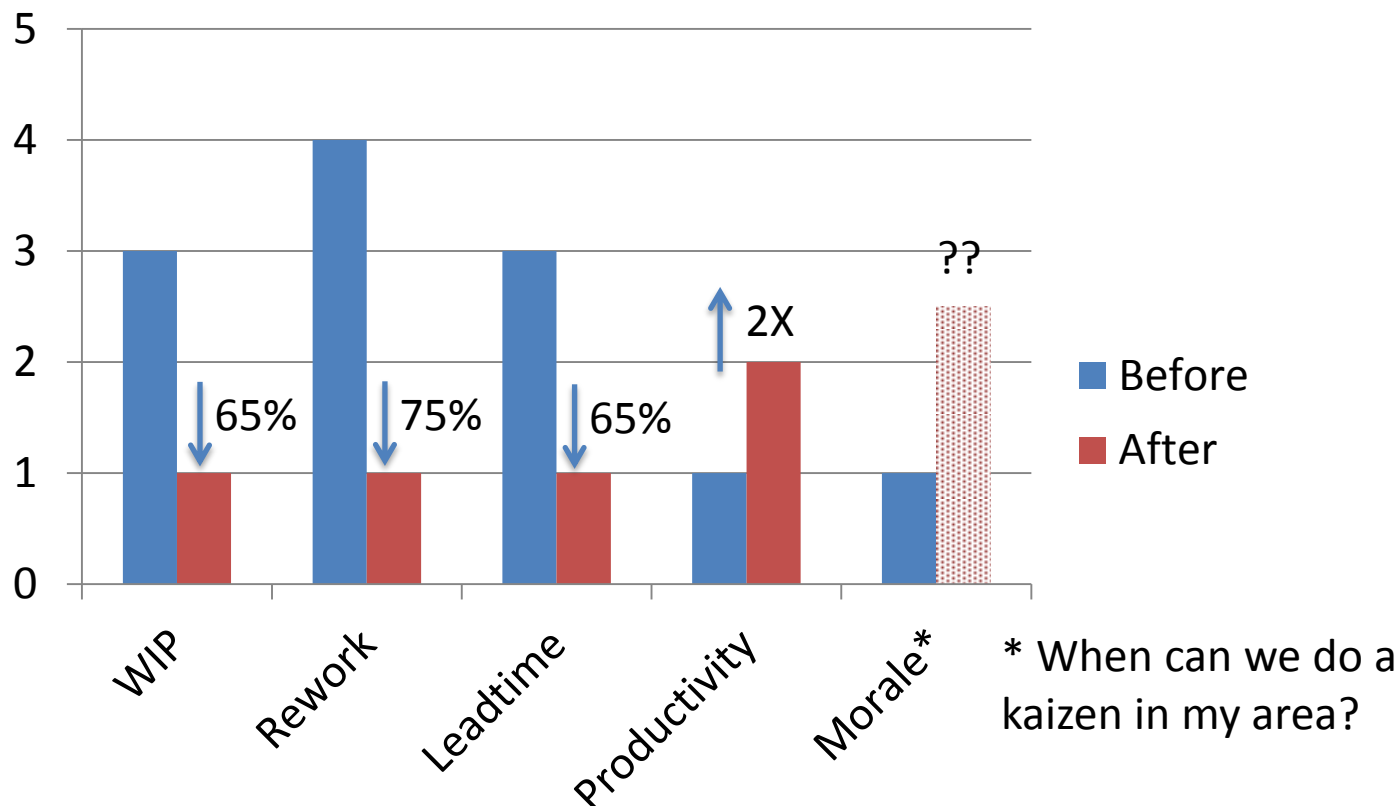
Integrated standard work

Jidoka – the human touch

- Self checks
- Successive checks
- Process control and ownership
- Fast feedback loops

The goal that was eventually achieved: product built this shift, was tested this shift – fast feedback by equipment test (while the trail was hot…)

Supporting the Employees

- People had a say in the process

- They helped to make their jobs better

PDCA to support employees & sustain change

What was next?

- Improved yield (6 sigma then 0 defects)

- Connect all the stations

- 1 piece flow and moving production line to see the waste

What Did We Learn?

- Get the people engaged
  (incl. staff - engineers, tech's, etc.)
- Get process stability
- Ownership & monitor the process
- Fast feedback loops
- Make the process speak: something is wrong
  (at the first unit – not after a week)
- Just do it – don't over-analyze
- Solve problems for your customers (add value!)
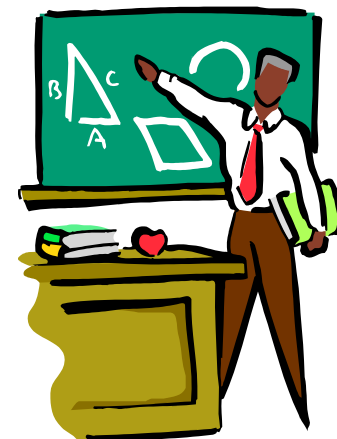
Conclusion

Get employees
engaged to
add value

BEAN COUNTERS

An accountant did some quick math and discovered that we could save a ton of money by placing just one slice of cheese on a two cheeseburger instead of two.

We told him that if he couldn't focus on adding more value for our customers, which would lead to growing our business instead of trying to save money by cutting corners, we would save money by showing him the door.

He got the message.

Thank You!

Your opinion is important to us!

Please take a moment to complete the survey using the conference mobile app.

Session No: TS/02
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