Webinar: Using Lean Supply Chain Concepts to Maximize Customer Value, Employee Engagement and Improve Your Balance Sheets

LEAN Supply Chain Professional Series
Building the Lean Supply Chain Problem Solver
Sept 15-17, 2015
Georgia Tech Global Learning Center

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Lean Supply Chain Professional Series

Building the Lean Supply Chain Problem Solver

Building the Lean Supply Chain Professional

Building the Lean Supply Chain Leader

also offered online
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Chris Jenkins
Director of Supply Chain
Mueller Company

Years in the Industry: 25

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Other Credentials:
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- Certified in Production & Inventory Management (CPIM) from APICS
The Lean Enterprise System

The People
- Students & Teacher
- Responsibility & Results
- Systems Thinker
- Problem Solver
- "Go See"
- Change Agent

The Process
- PDCA
- Customer Focus
- Waste Elimination
- Quality at the Source
- Flow - JIT
- Stability
- Standardization

The Purpose

Creating Customer Value

Learning Organization

Long Term Thinking

Respect For Humanity

The Purpose
Supply Chain Centered Organizations


Lead Time is Only Made of Two Things!

Supplier Build

Inventory

Product Design

Rework

Manufacture

Waiting

Customer Consumes

Waste

Value

Waste

Value

Waste

Value
Lean Organizations Think Differently

POLL QUESTION: Where does your organization weigh? Left (Traditional) or Right (Lean Thinking)

<table>
<thead>
<tr>
<th>Traditional Thinking</th>
<th>Lean Thinking</th>
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</thead>
<tbody>
<tr>
<td>Push - Economies of Scale - Make the Numbers - Unit Cost</td>
<td>Pull - Make (move) only what the customer has ordered</td>
</tr>
<tr>
<td>Batch and Queue - Make (Order) and Move Big Batches</td>
<td>One Piece Flow - Move small batches and keep them moving</td>
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<tr>
<td>No standards or complicated standards hidden in a binder</td>
<td>Simple, visible standards for all critical processes for all to see</td>
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<tr>
<td>Move the product, let defects flow down the supply chain</td>
<td>Stop the process immediately - Deal with defects at root cause</td>
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<tr>
<td>Engineers solve problems and create the best way to do work</td>
<td>The people doing the work design it and solve the problems</td>
</tr>
<tr>
<td>Hire brilliant people to try to fix broken processes</td>
<td>Empower regular people to improve upon brilliant processes</td>
</tr>
<tr>
<td>Hide problems by throwing inventory and resources at them</td>
<td>Expose problems by reducing inventory and resource levels</td>
</tr>
<tr>
<td>Managers work in offices and manage with data and reports</td>
<td>Managers &quot;go and see&quot; and manage with data and facts</td>
</tr>
<tr>
<td>Execute fast and go on to the next &quot;new&quot; thing</td>
<td>Plan, Do, Check, Act...Getting the Right Things Done Right</td>
</tr>
<tr>
<td>A problem is an unclear opportunity... it is optional to fix it</td>
<td>A problem is a deviation from the standard...it must be fixed</td>
</tr>
<tr>
<td>The cause of a problem is people... we ask who?</td>
<td>The cause of a problem is the process...we ask why (5 times)</td>
</tr>
<tr>
<td>We become defensive if others suggest problems in our area</td>
<td>We are thankful others see what we do not see ourselves</td>
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<tr>
<td>The business is a collection of independent departments</td>
<td>The business is a system of inter-dependent processes</td>
</tr>
<tr>
<td>Focus on outputs and cost reduction</td>
<td>Focus on inputs and lead time reduction</td>
</tr>
<tr>
<td>If it’s not broken, don’t fix it</td>
<td>It can always be improved</td>
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</table>
Articulate Your Purpose and Customer Value Proposition
Build the Learning Organization
Show Respect for People
Show Respect for Processes - Stability, Standardization, Quality at the Source
Make Problems Visible - Solve Problems in Real Time
Eliminate All Waste - Do Only Those Things That Add Value to the Customer
Think Long Term as Well as Short Term
Continuously Improve: Get Better Every Day
Teach the Power of Process Review and use a simple and standard problem solving model
Audience Question: What does this even mean?

What is a problem?
"The problem is at the top; management is the problem. You have to manage the system, the system will not manage itself."

- W.E. Deming
What we leaders need to recognize is that most problems are associated with processes.

Therefore, the Lean Problem Solver needs to be a process thinker.
Lean Thinking 101: Inputs and Outputs

If it’s all about processes, we should know what a process is:

**Process:** a systematic series of actions directed to some end.

**Process Elements**
- Supplier
- Input
- Procedure
- Timing
- Output
- Measure
- Customer

\[ Y = f(x) \]

Business is about taking inputs and transforming them into outputs that our customer will see value in. How well we do this determines how well our organization performs.

What is a principle? What are principles inputs?
In a system, a process that occurs will tend to increase the total entropy of the universe.

Entropy: A measure of the disorder or randomness in a closed system

System: A group of interacting, interrelated, or interdependent elements forming a complex whole.

Second law of thermodynamics
# ORLOE Problem Solving Model

<table>
<thead>
<tr>
<th>Operate</th>
<th>Do the Work &amp; Identify the Problem</th>
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<tbody>
<tr>
<td></td>
<td>Plan &amp; perform the work.</td>
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<tr>
<td></td>
<td>Identify gap between plan vs. actual condition.</td>
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<tr>
<th>Review</th>
<th>Define the Problem</th>
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<td></td>
<td>Document &amp; validate current state.</td>
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<tr>
<td></td>
<td>Develop a clearly defined problem statement.</td>
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<th>Learn</th>
<th>Determine Root Cause</th>
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<td></td>
<td>Identify all possible causes to the problem.</td>
</tr>
<tr>
<td></td>
<td>Isolate critical few root causes to the problem.</td>
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<th>Optimize</th>
<th>Identify Solutions</th>
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<td>Develop solutions that address the root causes to the problem.</td>
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<td></td>
<td>Ensure the solutions support the entire value-stream.</td>
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<th>Execute</th>
<th>Implement &amp; Sustain the Solution</th>
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<td>Communicate, train, and Implement the solution.</td>
</tr>
<tr>
<td></td>
<td>Measure and monitor the impact of the solution.</td>
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Tools Are a Means, Not the Purpose!

But here are some examples that we will teach you....

Shift Readiness

Problem Solving Board

Level Flow & Takt Time

Picking Visuals
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Thank You for attending

Included w/course Everything I Know About Lean I Learned in First Grade

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Questions/Comments webinar@scl.gatech.edu

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