

LEAN Training Needs Assessment and Recommendation

Presented to Scott Mohr

July 2009

Issue/Problem	<ul style="list-style-type: none"> • Deluxe desires to transform into an innovative, customer-focused organization with a lower-cost operating structure • LEAN principles, practices, techniques and tools will facilitate this transformation. • Currently, learning associated with LEAN is done in classroom sessions, or through informal, unstructured self-learning. Desire is for “pull” training so that all employees receive consistent, structured training.
Considerations and Assumptions	<ul style="list-style-type: none"> • Classroom training materials exist for all LEAN topics. Content for the on-line tutorials can be pulled from these materials. • There are several Subject Matter Experts within the organization (LEAN Steering Team) who can support development of these modules. • LEAN experts do not have access to (or experience with) on-line authoring tools. • Sales Competency and Training (SC&T) can support training designs and project management as well as provide limited resources for tutorial development. SC&T will continue to assess resources available for development. The budget numbers included in this recommendation assume limited SC&T support. • The LEAN Enterprise group will need to fund use of the outside developer(s). A budget is included in this recommendation. • Human Resources has been charged with providing leadership and soft skill training related to LEAN. • Two cross-functional teams have been created to reinvent core products and growth solutions on the FS side. These initiatives will require those involved in implementation to follow LEAN practices.
Recommendations (See Detail Next Pages)	<ul style="list-style-type: none"> • Create series of on-line modules <ul style="list-style-type: none"> • LEAN Basics = 2 Modules. These modules will be the first developed and should be completed by Fall 2009 • LEAN Intermediate = 8 Modules. Second priority for development. Developed during Fall 2009. • Create a process for implementing this training as well as resources for leaders to coach their team members as they begin to apply the information covered in the modules. • LEAN Enterprise Team create system and tools for on-going communication to those who have completed training – reminding them of what they have learned and encouraging them to apply their learning. • Advanced and Management modules will not be developed at this time.

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Recommendations – Each module about 30 minutes in length (or less if possible)

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Topic Area	Intermediate Mention in 101	Intermediate – Requires Own Module		Advanced Requires Own Module	Leadership Requires Own Module	Notes/Resources
LEAN 101: Principles of LEAN Thinking <ul style="list-style-type: none"> Understanding LEAN Thinking Defining Value Creating a LEAN Environment Working within a LEAN Culture 						SME Recommendation = Jane
LEAN 102: Introduction to LEAN Problem Solving <ul style="list-style-type: none"> Using 5 Whys Problem Statements Mistake Proofing Plan-Do-Check-Act Approach Overview of Value Stream Mapping Acknowledge other LEAN Problem Solving Tools 						SME Recommendation = Jane
A3 thinking (prereq to Value Stream Mapping)	X	X				SME Recommendation = Todd
Value stream mapping (prereq to Flow Charting & Process Mapping)	X	X				SME Recommendation = Christy
Flow Charting & Process Mapping	X	X				SME Recommendation = Jane
Voice of customer (form of Value Analysis)	X	X				SME Recommendation = Mindy
Metrics	X	X				SME Recommendation = Jamie
Continuous improvement (Kaizen)	X	X				SME Recommendation = Jane
Continuous Flow/Pull Systems /Visual workplace	X	X				Introduce basics of Material Signals in Visual Workplace SME Recommendation = Jane
General Standard work	X	X				Include how creative work fits into LEAN SME Recommendation = Jane

Topic Area	Intermediate Mention in 101	Intermediate – Requires Own Module		Advanced Requires Own Module	Leadership Requires Own Module	Notes/Resources
<i>These topics are not in the scope of the online learning, but are noted to acknowledge the advanced level of knowledge.</i>						
Advanced Content - Project Management certification level						
Flow analysis charts (spaghetti diagrams, etc.)				X		
Cause & effect diagrams (fishbone, CEDAC, Ishikawa)				X		
Pareto, Check sheets, Histograms				X		
Scatter, concentration diagrams, control charts, storyboards				X		
Material signals/Kan ban				X		
Kaizen Blitz				X		
Management/Leadership Content						
14 Management principles of the TPS					X	
Hoshin Kanri					X	
Catchball thinking					X	
Leader Standard Work					X	

<i>These Soft Skill areas are also out of scope as they are being addressed by various areas within Human Resources.</i>			
Topic Area and Type of Knowledge Required for LEAN Implementations	Individual Contributor	Leadership (content specific to leader's role)	Notes/Ideas
Team building	X	X	Grove Model being rolled out by TM in 2009. Will be classroom.
Team decision making	X	X	
Teamwork values	X	X	
Effective listening	X		Resources exist through coaching program. Could be quickly developed (3rd priority)
Organizational change mgmt		X	Joel L has content, could create module (2nd priority)
Personal change mgmt	X	X	Joel L has content, could create module (1st priority).
Facilitation	X	X	Jean H may have resources
Coaching		X	Regularly offered as live session for supervisors
Personal style	X		Several models currently being used. Nothing in Pull format
Effective communication	X		
Systems thinking	X	X	Does this need to be specific to LEAN?
Brainstorming	X		
Requirements gathering	X		Does this need to be specific to LEAN?
Negotiation	X		May be creating module for Field Sales. Might work for this as well.

Detailed Recommendation – LEAN Basics Modules

LEAN 101: Principles of LEAN Thinking (estimate 25-30 minutes with activities)

Detailed Learning Objectives:

- Describe the basic principles of “LEAN thinking”
- Explain how LEAN thinking (“Systems Thinking”) can help an organization succeed in today’s economy.
- Identify the barriers individuals and work groups can encounter along their “LEAN journey.”
- Cite the only criteria for determining “value” within an organization (customer values).
- List the criteria used to determine if an activity provides true value to a customer and identify an example value and waste for each criteria.
- Analyze business activities to differentiate those which create value (value add) and those which do not (non-value add) and those that do not create value, but that are a necessary expense (non-value added, but necessary).
- List the eight wastes and identify an example of each.
- Practice identifying wastes through a “waste walk.”
- Apply lean thinking to identify actions to fix wastes.
- Recognize the impact the physical environment has on an employee’s or team’s ability to create customer value (as opposed to creating waste!).
- List the elements of the 5S system and identify an example of each.
- Describe actions individuals or teams can take to apply the 5S system.
- Examine a work environment and recommend 5S improvements.
- Recognize the value of visual cues in everyday life.
- Explain how visual cues in the workplace can help reduce waste.

Outline:

- I. Understanding LEAN Thinking
- II. Defining Value
- III. Creating a LEAN Environment
 - a. 5 S’s
 - b. Visual Workspace
- IV. Working Within a LEAN Culture
 - a. Hoshin Kanri
 - b. CatchBall Thinking
 - c. General Standard Work

Detailed Recommendation – LEAN Basics Modules

LEAN 102: Introduction to LEAN Problem Solving (estimate 25 to 30 minutes with activities)

Detailed Learning Objectives:

- Describe the “5 Whys” process.
- Explain why this process is so valuable for identifying root causes of problems.
- Define the elements of a concise problem statement.
- Recognize when the “5 Whys” are and are not being appropriately applied.
- Recognize the elimination of errors and mistakes as a key element of LEAN.
- Explain benefits mistake proofing can provide to individuals and work groups.
- Define what is meant by “value stream mapping.”
- Recall the primary tools that can be used to complete value stream mapping processes.
- List other commonly-used LEAN problem solving tools

Outline:

- I. Using 5 Whys
- II. Problem Statements
- III. Mistake Proofing (Poka Yoke)
- IV. Plan-Do-Check-Act Approach
- V. Overview of Value Stream Mapping
- VI. Acknowledge other LEAN Problem Solving Tools

Budget and Timelines

Module	Module Length (Estimates used for Planning)	Internal Development	External Development	Timeline	Subject Matter Expert
LEAN 101: Principles of LEAN Thinking	30 Minutes	X		September, 2009	Jane D
Implementation and Coaching Plan	N/A	XX		September, 2009	Jane D
LEAN 102: Introduction to LEAN Problem Solving	30 Minutes	X		October, 2009	Jane D
A3 Thinking (prereq to Value Stream Mapping)	30 Minutes	*	\$X,XXX	October, 2009	Todd M
Value Stream Mapping (prereq to Flow Charting & Process Mapping)	30 Minutes	*	\$X,XXX	November, 2009	Christy K
Flow Charting & Process Mapping	30 Minutes	*	\$X,XXX	December, 2009	Jane D
Voice of Customer	30 Minutes	*	\$X,XXX	January, 2009	Mindy F
Metrics	30 Minutes	*	\$X,XXX	January, 2009	Jamie R
Continuous Improvement (Kaizen)	30 Minutes	*	\$X,XXX	January, 2009	Jane D
Continuous Flow/Pull Systems /Visual Workplace	30 Minutes	*	\$X,XXX	February, 2009	Jane D
General Standard Work	30 Minutes	*	\$X,XXX	February, 2009	Jane D
Estimated Out of Pocket Budget (Forecasted based upon fees incurred for development of shorter modules)			\$XX,XXX		

Estimates include SC&T resources to perform:

X = project management, planning, storyboarding, tutorial development, Alpha and Beta testing, loading to Learning Portal and testing (120 to 150 hours per module depending upon availability of SME, need to find/create graphics, and other variables).

XX = interviews with key stakeholders, collaboration on drafting and editing of recommended plan, drafting of initial communications tools and coaching materials, distribution and posting of initial communications and coaching plan (approximately 60 hours).

* = project management, planning, storyboarding, Alpha and Beta testing, loading to Learning Portal and testing (60 to 80 hours per module depending upon the availability of the SME, need to find/create graphics, and other variables).