LEI Webinar

Managing to Learn:
Part 2 - Conversations with Lean Leaders About the Real Impact of the A3 Management Process

With John Shook, Lynn Kelley, Ph.D., Eric Ethington, and Jack Billi, MD

November 13, 2008
Housekeeping

Use the volume controls on your computer to adjust sound.

Enlarged slides with the console button beneath them.

Use the "ask a question" button on the left side to submit questions.
Managing to Learn
Using the A3 management process to solve problems, gain agreement, mentor, and lead
Our host for this conversation

John Shook
Lean Transformations Group
LEI Senior Advisor

✓ Hired by Toyota in 1983 to help manage the transfer of the Toyota management system across the world.
✓ Learned the A3 process through being mentored as a manager in Toyota City
✓ Co-author of *Learning to See* (Value Stream Mapping).
✓ Now introducing the A3 management process to the global lean community in his new book, *Managing to Learn*. 
The Lean Leader’s job is to...

Get the work done (design-build-ship-sell)
While developing people...at the same time!
Lynn Kelley is Vice President, Textron Six Sigma, a position she was appointed to in May 2007. Kelley drives the ongoing deployment of Textron Six Sigma and the continuous improvement of its DMAIC, DFSS and Lean capabilities across all Textron business units. She is a member of the Textron Transformation Leadership Team, a Corporate Officer and a Textron Six Sigma Master Black Belt.

Kelley began her Textron career at Textron Fastening Systems in 1999, where she held various positions, including Vice President, Continuous Improvement and Acting Vice President of Strategic Planning. Prior to joining Textron, she was Professor, Department Chair, and Director of the Master’s Degree in Quality and Operations Management at Madonna University. She also served as Executive VP and COO for Doctors Hospital in Detroit, Michigan.

Kelley holds a Ph.D. from Wayne State University, an MBA from Michigan State University Executive MBA Program, and a BBA, Business Management from University of Detroit-Mercy. She has published books in the fields of statistics and operational excellence.
Eric Ethington is a Lean Implementation Manager in Textron Six Sigma’s corporate lean organization, joining the group in the spring of 2007. Eric’s role is one of driving change within Textron through influencing and teaching others. Key internal customers of Eric’s are Bell Helicopter, Jacobsen and the Textron Six Sigma Council. Prior to joining the lean group, Eric spent eighteen month in the corporate black belt program, obtaining his DFSS certification in October of 2006.

Before joining Textron in 2005, Eric held various positions at Delphi in a career spanning 22 years. A key accomplishment during his Delphi career was his team’s development and execution of Delphi’s internal Lean Enterprise College. Additionally, Eric was mentored for 3.5 years by Yoshinobu Yamada, former General Manager of Production Control for NUMMI.

Eric earned a BS in Industrial Engineering from General Motors Institute (now Kettering University) and an MBA from the University of Michigan at Flint.
The Personal Impact of Using A3’s

• Leaders “facilitating learning” is a big change from traditional leadership models

• Always preferred a direct approach, which felt more efficient, but often was not

• A3’s make a lack of agreement/alignment visible

• Using A3’s has had many spillover effects on day-to-day behavior e.g. keep reminding yourself as questions
The Organizational Impact of Using A3’s

- Organizational conflict often comes from different perceptions of a problem/situation.
- A3’s create a common process to agree (or fail to agree) on a problem definition AND… to compare a variety of potential solutions.
- A3-based agreements work better than contracts/task lists --- based on real understanding and agreement.
- A3 use has grown organically, not mandated --- “Pull” not “Push”
Value Stream Improvement – Plant 40

Situation:
- Leadership decision to focus continuous improvement activities in key plants
  - Plant 1
  - Plant 40
  - Plant 7
- Desire to transform operation to a lean enterprise, leveraging all continuous improvement skill sets.

Plant 40 Problem Statement:
Improve On Time Delivery & First Time Quality in key value streams, which are to be determined, while building Continuous Improvement capabilities at all levels.

Analysis of key VS(s) and Recommendations

<table>
<thead>
<tr>
<th>Building Impact within VS</th>
<th>Business Impact across VSs</th>
<th>Most Difficult</th>
<th>TOTALS</th>
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- Recommend dual, staggered approach
  - Lead with Value Stream #1 to create quick results
  - Beachhead
  - Place for others to go see
  - Quickwin
  - Follow with Value Stream #10 to have greatest impact on the Plant

Date: 

Agreement:
- Eric – Lean Senset
- Robert – Plant Mng
- Ron – Di. of Lean
- Dan – VP TSS

Multi-level capability building:

<table>
<thead>
<tr>
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<th>Tail Rotors</th>
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High-level timing:

- [Timeline diagram]
  - NOTE: Progressing according to timeline

Team Strategy:
- Group Sensit, MBB & Bell Lean Support as dynamic leads: Sensit to support F2F 1wk/month minimum, assuming progress on core projects
- Begin with small core team to develop current state map and first-cut future state
- Engage individuals as required in map development
- Expand team appropriately during development and implementation of specific solutions: Allow future state to adjust based on learnings.

VS11 Status:
- 2 Projects working concurrently
  - Improve OMT from 75% to 90%
  - Scheduling and kitting
  - Internal material flow

VS10 Status:
- Focus on kitting and front-end scheduling
- Improve OMT and reduce inventory
- Process issues associated with kitting identified

Other:
- Initiating scheduling project in VS99 (feeder to #1)

Issues:

Managing to Learn

Lean Enterprise Institute
### Value Stream Improvement - Plant #6

**Situation:**
- Leadership decision to focus continuous improvement efforts across all plants.
  - Plant 1
  - Plant 46
  - Plant 7
- Desire to transform operation to a lean enterprise and develop continuous improvement skill sets.

**Plant #6 Problem Statement:**
Improve On Time Delivery & First Time Quality are to be determined, while building capacity at all levels.

### Analysis of key VS(s) & Recommendations

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- Red: unmet need if single solution pursued

**Learnings:**
- Recommend dual staggered approach
- Lead with Value Stream #1 to create quick results
  - Beachhead
  - Place for others to go see
  - Quick win
- Follow with Value Stream #10 to have greatest impact on the Plant

**VS10 Status:**
- 2 projects working concurrently
- Improve OTD from 75% to 90%
- Scheduling and kitting
- Internal material flow

**Issues:**
- Initial scheduling project in VS99 (feeder in #1)
Analysis of key VS(s) and Recommendations

- Leadership decision to focus continuous improvement on Plant 46.
- Desire to transform operation to a lean enterprise, continuous improvement skill set.

Plant 46: Problem Statement:
- Improve On Time Delivery, First Time Quality in key value streams.
- Metrics to be determined, while building Continuous Improvement at all levels.

Analysis of Key VS(s) and Recommendations:

- Recommend dual, staggered approach.
  - Lead with Value Stream #1 to create quick results:
    - Beachhead
    - Place for others to go see
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  - Follow with Value Stream #10 to have greatest impact on the Plant.

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Legend:
- Red: unmet need if single solution pursued.
Managing to Learn
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NOTE: 1 = Low, 9 = High

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A3 Advice

• Don’t underestimate the power of the alignment and mentoring aspects of the A3 --- it’s not just a problem-solving format

• Mentoring is independent of position --- you can mentor up or down or with colleagues
  - Try it with your boss… What boss would reasonably object to being presented a concise, clear story?

• Be prepared to be changed and how you listen and interact with people in general
Jack Billi, M.D., is professor of Internal Medicine and Medical Education, and associate vice president for Medical Affairs of the University of Michigan.

Dr. Billi, also leads the Michigan Quality System (MQS) at the University of Michigan Health System (UMHS). MQS, drawing from GM’s Global Manufacturing System and the Toyota Way, uses lean principles to build on continuous improvement methods to improve quality, safety, efficiency, appropriateness, and service in healthcare. MQS also works with regional physician groups and hospitals.

Dr. Billi directs courses for introducing lean thinking in healthcare, including a joint educational program with the University of Michigan’s College of Engineering. From 1997 to 2005, he led UMHS’s development and implementation of innovative health programs that were used in insurance pilots with Ford, GM, and currently are being used by several insurance companies. Dr. Billi is active in statewide, regional, and professional initiatives affecting quality of care and physician practice issues, especially the use of community consortia to support quality improvement.
Improving Patient Flow by Reducing Hospital Readmissions through Patient Involvement

**Name of Project or Theme:** LEAN Discharge Follow up Appointment Process  
**Where Are We in the Project Cycle?** Fall rollout to MFH Service - October 2007

**Pre-Intervention Follow up Appointment Process**

- Pre-intervention, discharge management follow up appointment is scheduled by discharging physician or nurse practitioner at time of admission.
- Patient is scheduled for a follow up appointment in EMRS system and notified.
- Patient is informed they will receive a call to set up appointment.
- Patient is reminded to call the discharge scheduler via phone.
- Patient is given follow up appointment time and location by the discharge scheduler via phone.
- Patient is instructed to contact their primary care provider for appointment.
- Letters are sent to patients.

**Future State Goals:**
- Encourage patient engagement and follow up.
- Reduce readmission rates.
- Improve patient satisfaction.

**Who is involved?**
- Lean Process Owners: Robert Chang, MD and Donna McClosky, BSN Lean Coach, Kwei Nkansah and Christopher Kim, MD, Public Relations and Marketing Communications: Sunny Agrwal and LearnVenture Outpatient chair, Partners and others

**Constraints implemented to date:**
- 80% of patients are discharged within 34 hours of admission.
- 100% of patients are scheduled for a follow up appointment.
- 75% of patients have received a call to set up their appointment.

**Lessons Learned:**
- Utilization of Lean thinking to identify process bottlenecks and opportunities for improvement.
- Integration of information technology to streamline processes and improve communication.
- Continuous improvement approach to continuously monitor and adjust processes as needed.

**Appointment Outcome Data**

- **Appointment Outcome Pre-intervention:**
  - Pre-intervention: 11.01%
  - MFH Full Rollout: 7.60%

- **Appointment Outcome Post-intervention:**
  - Pre-intervention: 5.00%
  - MFH Full Rollout: 0.75%

**Next Steps:**
- Patient satisfaction surveys
- Follow-up to see if the schedule can handle the day and hours worked
- Continuous improvement for the discharge process
- Hospital-wide - look at other locations (i.e., surgery, obstetrics) for appointment in clinic prior to admission
A3 Application Examples at UMHS

Proposals

• Major clinical expansion in a geographic region
• Capital project review ($61M in requests v. $26M available)
• Requests for central lean coaching resources
• Creation of a claims data warehouse for Michigan physician organizations
• Proposal to health system’s senior leadership to use A3s to track progress on top 24 objectives

Status Reports

• Health system’s senior leadership tracks progress on top 20 objectives (e.g., Discharge Appointments)
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Status Reports

- Health system’s senior leadership tracks progress on top 20 objectives (e.g., Discharge Appointments)
A3 Observations from the Gemba

We are just starting to learn:

• Beware A3s without the conversations
• Not enough gemba – debates on hear-say
• Too many words, not enough graphs, charts, maps, facts
• Not presenting the whole A3
• The waste of over-processing
• For some A3 is “required”, not driven by owner need
Now Available in the LEI Bookstore

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Related Articles
Downloads
Sample Chapters
Related webinars
Now at Lean.org

New Website Feature:

John Shook's
Lean Management Column
lean.org/shook

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Questions from the Audience...