How the Lean Transformation Model Works

Developing a continually learning and improving system.
Model developed by John Shook
(Lean Enterprise Institute)
What is the Lean Transformation Model?

This presentation is developed to introduce the Lean System.

Lean is much more than mapping and the tools to eliminate waste. It is a complex cultural system which enables a company to continuously Learn and Improve.

Many organization fail to move into a more systemic approach in their implementation of Lean, and never gain the true benefits of the system. Partial implementations of a system are normally unsustainable, it is a little like thinking having a car engine will enable you to drive around the city.

In this presentation I will introduce the elements of the Lean System and some of the training offered by the Office of Housing Operations.
Successful transformations deal with all five dimensions of the Lean System in balance.

Every transformational change situation is unique – you cannot just copy what someone else did.

1. Establish our target condition.

2. How will we improve the value creating work?

3. How will we develop our people?

4. What leadership behaviors and management system is required?

5. What basic thinking (mindset, fundamental assumptions) underlie/drive this transformation?

Lean is not just a process improvement tool. It is for System Improvement.

Fractal, from organizational problem to team problem.
The Transformation model is fractal in nature - it should be used at all levels of the organization.
1. Strategy Development

1A. Strategy Deployment

**Improved method of Policy Deployment**

- **Target**
- **Interpret Target & Cascade**
- **Mentor/Mentee Adjust and gain consensus Nemawashi**
- **CEO**
- **EXECUTIVE**
- **MANAGER**
- **SUPERVISOR**
- **TEAM**

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**Situational Approach**

**Value Driven Purpose**

**What problems are we trying to solve?**

**Management System**

**Process Improvement**

**Capability Development**

**Leadership behaviors**

**Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.**

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Lester Sutherland Housing Operations

Figure 1. Strategic planning process

Figure 1. Strategic planning process
The Five Phases of Strategy Deployment Planning

Phase 1: Strategic Planning and Setting the Improvement Goals

Phase 2: Goal Deployment

Phase 3: Monitoring the Goals; Controlling with Metrics

Phase 4: Check and Act on the Improvement Process.

Phase 5: President’s Diagnosis
Only targets relevant to each area are cascaded to the area.
Process Improvement

2. Value Stream Mapping

2A. Waste Elimination

<table>
<thead>
<tr>
<th>Pure Waste</th>
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</thead>
<tbody>
<tr>
<td>Defects</td>
</tr>
<tr>
<td>Overproduction</td>
</tr>
<tr>
<td>Waiting</td>
</tr>
<tr>
<td>Not Utilizing Employees</td>
</tr>
<tr>
<td>✓ Knowledge and ability</td>
</tr>
<tr>
<td>Transportation</td>
</tr>
<tr>
<td>Inventory</td>
</tr>
<tr>
<td>Motion</td>
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<tr>
<td>Excess Processing</td>
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</tbody>
</table>

Situational Approach
Value Driven Purpose

What problems are we trying to solve?

Management System

Leadership behaviors

Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.

True North
Value Stream Mapping

Re-finance
Can you think of any examples of Waste in Your Process?

- Waiting
- Over Production
- Motion
- Excess Processing
- Fixing Defects
- Not Utilizing Employees
- Inventory
- Transporting
Process Improvement

2B. Huddles

2C. Scientific Method

- Situational Approach
- Value Driven Purpose
- What problems are we trying to solve?

- True North
- Management System
- Leadership behaviors
- Capability Development

- Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.
Huddles

Mapping Huddle

Office Huddles
Seattle Visual Management - Team Huddles

What is happening?
What should be happening?
How can I help you?
Seattle Multi-Family Development Team Board
Scientific Method

PDCA Cycle

Shewhart Cycle

http://www.sciencebuddies.org/mentoring/project_scientific_method.shtml
3. Versatility Charts

### Skills Matrix for Task A

<table>
<thead>
<tr>
<th>Process</th>
<th>Name</th>
<th>Skill 1</th>
<th>Skill 2</th>
<th>Skill 3</th>
<th>Skill 4</th>
<th>Skill 5</th>
<th>Skill 6</th>
<th>Skill 7</th>
<th>Skill 8</th>
<th>Skill 9</th>
<th>Skill 10</th>
<th>Skill 11</th>
<th>Skill 12</th>
<th>Skill 13</th>
<th>Skill 14</th>
<th>Skill 15</th>
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</tr>
</tbody>
</table>

3A. Standard Work

### Standard Work Instruction

**Process:** Order Processing  
**Operation:** Order Entry

<table>
<thead>
<tr>
<th>Task</th>
<th>Key Points</th>
<th>Time / Timing</th>
<th>Visual References</th>
</tr>
</thead>
</table>
| Enter Order | - Enter header first, then each line item for efficiency  
  - All required fields must be input to ensure accuracy  
  - 5-10 mins per order  
  - Enter within day of receipt | | |

**Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.**

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**True North**

**Situational Approach**

**Value Driven Purpose**

**What problems are we trying to solve?**

---

**Management System**

**Capability Development**

**Leadership behaviors**
Versatility Chart

The skills matrix is developed from the brainstorm action. Each Team member along with leader input self-assesses their skill from the Standard work documents.

Member A
- Skill 1
- Skill 2
- Skill 3
- Skill 4
- Skill 5

Member B
- Skill 1
- Skill 2
- Skill 3
- Skill 4
- Skill 5

Skills Matrix for Task A

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can not perform the task</td>
</tr>
<tr>
<td></td>
<td>Familiar with elements of the job</td>
</tr>
<tr>
<td></td>
<td>Can perform with help</td>
</tr>
<tr>
<td></td>
<td>Can perform solo</td>
</tr>
<tr>
<td></td>
<td>Can teach others to perform</td>
</tr>
</tbody>
</table>

Improvement Goals

The skills matrix is developed from the brainstorm action. Each Team member along with leader input self-assesses their skill from the Standard work documents.

Lester Sutherland Housing Operations R5
Here is a sample of what this **skill matrix template** looks like.

<table>
<thead>
<tr>
<th>Name / Skill</th>
<th>TPS Philosophy</th>
<th>7W</th>
<th>5S</th>
<th>JIT</th>
<th>Standard Work</th>
<th>Visual Management</th>
<th>Kaizen Event</th>
<th>Value Stream Mapping</th>
<th>Kanban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerry</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Jon</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mark</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Standardized Work

- Operations safely carried out with all tasks organized in the best known sequence, using the most effective combination of these resources:
  - People
  - Supplies
  - Methods
  - Equipment
  - Time

<table>
<thead>
<tr>
<th>Task</th>
<th>Key Points</th>
<th>Time / Timing</th>
<th>Visual References</th>
</tr>
</thead>
</table>
| 1. Enter Order | - Enter header first, then each line item for efficiency  
                    - All required fields must be input to insure accuracy         | - 5-10 mins per order  
                    - Enter within day of receipt                                    | 1 Work Form        |

Lester Sutherland Housing Operations R5
3C. A-3’s

3D. Empowerment

Capability of Employees

Situational Approach
Value Driven Purpose
What problems are we trying to solve?

Management System
Process Improvement
Capability Development
Leadership behaviors

Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.
Typical A3 layout

A3’s are used as an Employee/Team mentoring and training tool.

Plan/Do

Background
What is the problem?

Initial Condition/CSM

• What are the conditions right now at the workplace? Use charts, graphs, drawings.
• Discuss with Stakeholders and co-workers.

Goal/Target

• What specific outcomes are desired?

Countermeasure

• What is your proposal to reach the future state, the target condition?
• How will your recommended countermeasures affect the root cause to achieve the target?

Study-Check/Act

Implementation Plan

• What activities will be required for implementation and who will be responsible for what and when?
• What are the indicators of performance or progress?
  - Incorporate a chart

Analysis

• What is the root cause?
• Use the simplest problem analysis tool that clearly shows cause relationship

Follow-up

• What issues can be anticipated?
  - Ensure ongoing PDCA.
  - Capture and share learning.
A3 for Hospital admitting

**ISSUE:** Long “Patient To Bed” (P2B) times causing patient distress

**BACKGROUND**

Once an ED patient has been admitted as an inpatient it takes time before that patient arrives in his/her room. When this time (P2B) is long it is causing added distress to patients.

**CURRENT CONDITION**

- What rooms are vacant?
- Which rooms are actually free?
- When will they be cleaned?
- When will doctors discharge patients?
- Is the nursing staff ready to receive a patient?
- Does nursing have full roster for the day?

**PROBLEM ANALYSIS**

Problem: Takes a long time to determine room availability

Why: Bed boards are inaccurate
  - Why: Patient discharges/Room cleanup is sporadic
  - Why: Patient discharges/Room cleanup is sporadic

Problem: Patient has to wait even after room assignment

Why: “Advance Directives” does not start until after bed assignment

Problem: Patients wait even if a room is available

Why: Nurses are not on duty or not ready to receive patient
  - Why: Nurses can be on pre-shift or break or busy with another patient
  - Why: Patient can be on pre-shift or break or busy with another patient

(Can P2B value stream map for detail)

**TARGET CONDITION**

- Use admin or volunteer resources to check bed availability on a high frequency basis and update “bed board”
- Start “Advance Directives” before patient bed is assigned

**IMPLEMENTATION PLAN**

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>When</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use additional admin resources with “Who-Why” approach to keep bed boards accurate and reliable.</td>
<td>Jan, Feb, Mar</td>
<td>Month 1, August</td>
<td>Collect data and make decisions for comparison of impact of accurate vs inaccurate information.</td>
</tr>
<tr>
<td>Investigate automatic bed availability and notification systems in use at hospital. Add missing hospital site.</td>
<td>Jan, Feb, Mar</td>
<td>Month 1, August</td>
<td>Cost and implementation: calculate for an automated system for room availability for hospital wide.</td>
</tr>
<tr>
<td>Implement new room availability process and train all staff on August activities and procedures.</td>
<td>Jan, Feb, Mar</td>
<td>Sept, Nov</td>
<td>Reduce patient wait times and staff time in finding rooms.</td>
</tr>
</tbody>
</table>

**FOLLOW UP**

- Monthly tracking of outcome values
- Monthly estimation of annual costs/savings
- Monthly update of VSM
- Report out in December

**Outcome**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>JULY</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic patient wait time (99% of patients) have wait time less than x minutes</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>Average patient wait time</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
</tbody>
</table>
Employee Empowerment
Three Levels

Degree of Empowerment & Leadership

Enabling employees to make more and bigger decisions without having to refer to someone more senior

Involving employees in taking responsibility for improving the way that things are done

Encouraging employees to play a more active role in their work

Organizational Benefits

- Getting closer to the customer
- Improving service delivery
- Innovating continuously
- Increasing productivity
- Gaining the competitive edge

Adapted from “Empowering People”, Jane Smith
4. Management system

4A. Leadership Behaviors

Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.
LEADERSHIP/MANAGEMENT DEVELOPMENT

PLANNING

Mission/Vision/Values

Business Context

Business Strategy

DETERMINE:

Employee Development

Management Development

Skills/Competencies

Performance, etc.

Development Tasks

- Training
- Planning, etc.
- Development, etc.

Developmental Pathways/Opportunities

- Rotation
- Leadership, etc.

How to Make Management Development Real?

- Results
- Instruments, etc.

IMPLEMENTATION

A. IDENTIFICATION OF CANDIDATES FOR DEVELOPMENT

- Review individuals meeting talent profiles, effective leadership, etc.

- Match
- Develop, etc.

- Develop Plans, etc.

- Review/Process

- ID Method

B. SELECTION FOR JOBS OR OPPORTUNITIES

- Initial review
- Opportunities reviewed

- Review

- Job Requirements
- Opportunity review

- What works?
- Opportunities
- Develop

- Other available?
- Ws, customers, etc.
- Ws, developing and generally

C. DEVELOPMENT

- Implementation of individual action plan
- Responsibility of individual

- Ongoing coaching by manager: performance, etc.

D. ASSESSMENT/REASSESSMENT

- Is the idea doing the job?

- Better paid low stress job

- What skills do you want to develop?

- What skills are you in current assignment?

- How can I get what I want beyond this job?

- N.B.

- E. LESSONS LEARNED

- System
- Individually, etc.

GOTO "N"

- Employee Development
- Succession Planning
- Training
- Versatility (chart)
- Mentoring
- Placement
- Double-Loop Learning

Lester Sutherland Housing Operations
- “Process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task.” – Wikipedia (The Free Encyclopedia)

- “The only definition of a leader is someone who has followers.” - Peter Ducker (Writer, Management Consultant, Self described ‘social ecologist’)

- “Leadership is influence - nothing more, nothing less.” - John C Maxwell (Internationally respected leadership expert, speaker, coach and author)

- “Leadership is a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential.” – Warren Bennis (American scholar, organizational consultant and author)
Leadership’s Role?

Leadership must provide (Mentor/Teach/Afford) the ability and resources to self-manage toward IDEAL!

Role:

• Process reviews at regular intervals:
  – What is happening?
  – What should be happening?
  – How can I help?

• Roadblock removal /reduction during improvement implementation:
  – Resource constraints
  – Political issues
  – Technical barriers
  – Unplanned changes
  – Not able to do work to standard
4B. Types of Leadership

**Transformational Leadership**
- Idealized Attributes
- Idealized Behaviors
- Inspirational Motivation
- Intellectual Stimulation
- Individualized Consideration

**Transactional Leadership**
- Contingent Reward
- Management-by-Exception
  - (Active)
- Passive/Avoidant
  - Management-by-Exception
  - (Passive)
- Laissez-faire

**Outcomes of Good Leadership**
- Extra Effort
- Effectiveness
- Satisfaction

4C. Coaching for Improvement

Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.
**Transformational Leadership**
- Idealized Attributes
- Idealized Behaviors
- Inspirational Motivation
- Intellectual Stimulation
- Individualized Consideration

**Transactional Leadership**
- Contingent Reward
- Management-by-Exception (Active)
- Management-by-Exception (Passive)
- Laissez-faire

**Outcomes of Good Leadership**
- Extra Effort
- Effectiveness
- Satisfaction
The answer is usually unclear – as leaders we must coach our people so they learn how to experiment and arrive at an optimal solution.
5. Culture

5A. Culture Change & Systems Thinking

Culture

Elements of an Enviably Workplace Culture:
- Collective Vision and Purpose
- Individual Motivation
- Effective, Positive Management
- Team Dynamics
- Empowered Decision-Making
- Flexible Workplace

True North

Situational Approach
Value Driven Purpose
What problems are we trying to solve?

Management System
Leadership behaviors

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Capability Development

Basic thinking mindset and assumptions that underlie and drive the transformation, and constitute the culture.

Copy others or experiment and develop? Theory X – Theory Y?
4. My work gives me a feeling of personal accomplishment.

58. Managers promote communication among different work units (for example, about projects, goals, and needed resources).
Lean is a system.... It works from the synergy of all the parts. Systems Thinking is required.

Systems work because of the interaction between all parts, if only one part is developed the system will not function.

An engine is not a car, and cannot move passengers, in fact an engine cannot move itself.....

Just as a car is not just an engine, Lean is not just process improvement.
Systems Mapping Process Improvement

Reinforcing loops
Systems Mapping Process Improvement

Reinforcing loops
Systems Mapping Process Improvement

Diagram:

- Business Results
- Personal Results
- Networking and Diffusion
- Learning Capabilities
- People Involved
- New Business Practices
- Enthusiasm & Willingness to Commit
- Investment in Change Initiatives
- Credibility
- Delay

Reinforcing loops
Systems Mapping Process Improvement

Opposing Loop

- Business Results
- Personal Results
- Networking and Diffusion
- Enthusiasm & Willingness to Commit
- Credibility

New Business Practices

People Involved

Learning Capabilities

Investment in Change Initiatives

Time required

Time gap

"We don't have time for this stuff!"

Lester Sutherland Housing Operations
Opposing Loop

Systems Mapping Process Improvement
Questions?