Learning Outcomes

- Learn the difference between Lean Six Sigma and Agile LSS.
- Discover tools and techniques to get your organization on board quickly.
- Learn to identify problem areas and root causes.
- Discover the 12 principles of Agile Lean Six Sigma.
- Learn to “hack” Lean Six Sigma to make it agile.
The Long Tail of LSS Tools

Master the Top 4%

21st Century Quality Improvement

U.S. Employment 1990-2014
Hacking Lean Six Sigma

The spirit of hacking can be adapted and applied to general business management, not just technical innovation.

Scott Brinker – Hacking Marketing

Hacking Lean

WHERE DO I START?

SHRINK THE ARROWS
Hacking Six Sigma

Make Sure Your Story Uses the Magnificent Seven Tools
IS THAT GOOD OR BAD?
I DON'T KNOW

Most Data Is Overcooked
Go on a Raw Diet!

Why Raw Data?

Because Summarized Data Has Little Nutritional Value

If You Have Data Like This…

$5,000,000/Year
If You Have Data Like This…

<table>
<thead>
<tr>
<th>Data and time</th>
<th>Unit where pressure injury was first documented</th>
<th>Time between admission and pressure injury</th>
<th>Location of pressure injury documented</th>
<th>Initial stage documented</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/5/2015 13:29 Restore Care Mt</td>
<td>18027 Coscy</td>
<td>Stage II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/6/2015 20:17 Restore Care Mt</td>
<td>513 Coscy</td>
<td>Stage II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/11/2015 9:57 ABC</td>
<td>365572 Other</td>
<td>Stage II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/12/2015 9:59 ABC</td>
<td>244542 Other</td>
<td>Stage II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You Could Eliminate Pressure Injuries

Data Mining Wizardry

Start with a control chart of defects, mistakes, errors or costs:

Focus on Performance
Go Deeper – Apply the 4-50 Rule

4% of the Process Results in over 50% of the Errors

Use Paretos to Find What to Fix

64% of Denied Due to Timely Filing Claims Due to one Insurer
Identify Root Causes

Use the fishbone diagram to perform root cause analysis:

Medical Necessity
In-Patient
No Auth

Problem Statement

Inpatient
Timely Filing
64% of Denials

Countermeasures (Mistake Proofing)

• Countermeasure
  – Work with insurance company to resolve excessive denials
  – Reduce delays that contribute to timely filling denials

Verify Results

Reduced denials by 35% starting the following Monday ($380,000/month)
85% of C-suite executives say their company struggles with problem diagnosis, not problem solving, and that this comes with a significant cost.

January-February 2017 HBR

Six Sigma is too complex and time-consuming to fit into a regular workday. We need tools that don’t require the entire organization to undergo weeks-long training programs.

Thomas Wedell-Wedellsborg

January-February 2017 HBR
Hacking Six Sigma Training

You Don't Need to Learn Formulas

\[
\begin{align*}
\bar{X} &= \frac{\sum X_i}{n} \\
\bar{R} &= \frac{\sum R_i}{n} \\
UCL &= \bar{X} + D_4 \bar{R} \\
LCL &= \bar{X} - D_4 \bar{R}
\end{align*}
\]

You Don't Need to Learn Decision Trees

<table>
<thead>
<tr>
<th>Type of Data</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1 time/project</td>
</tr>
<tr>
<td>Length</td>
<td>2-10 diameters, lengths</td>
</tr>
<tr>
<td>Weight</td>
<td>11-25 diameters, lengths</td>
</tr>
<tr>
<td>Money</td>
<td></td>
</tr>
</tbody>
</table>
Learn the Patterns – Reduce Variation

Move Center Line Down or Up

Agile Lean Six Sigma

Data + Software + Training

Results $$$$ + Money Belt
Why Pivot Now?

Why do we need to change Six Sigma to avoid extinction?

Agile Lean Six Sigma

Traditional | Agile
---|---
* Big Implementations | * Small Agile Teams
* Rigid processes | * Agile
* Maintaining the status quo | * Accelerating speed and adaptability
* Big projects | * Laser-focused, data-driven projects
* Silos | * Engagement
* Complexity | * Simplicity

YOU CAN BE HERE

Step 1 | Step 2 | Step 3 | Step 4 | Step 5
Gut Feel | Common Sense | Trial and Error | Collecting Data | Analyzing Data | Improving | Hassle-Free Healthcare

Problem Solving Ability

Denial-No Appeal Charges
- $150
- $109,813
- $336,270
- $750,766
- $1,295,032
- $2,516,508
- $7,849,569

100% | 99% | 97% | 91% | 81% | 61% | 0%

Amount
- $1,607,264
- $3,214,527
- $4,821,791
- $6,429,054
- $8,036,318
- $9,643,582
- $11,250,845
- $12,858,109

MONEYBELT
Key Takeaways

- Lean Six Sigma Can Be Fast and Fun!
- Hack Lean By Eliminating the Arrows
- Hack Six Sigma By Using Software and the Magnificent Seven Tools

Questions

QI Macros – Affordable Tools for the Statistically Challenged

KnowWare International Inc.
2696 S Colorado Blvd. Suite 555
Denver, CO 80222
303-756-9144 888-468-1537
www.qimacros.com
jay@qimacros.com
qimacros.com/pdf/Agile-Lean-Six-Sigma.pdf
www.lssyb.com

Thank you!