Today’s Program

- Welcome
- Introductions
  - Ellen Milnes
- “Pragmatic Problem Solving”
  - Troy Burgess
- Open Discussion and Questions
About MoreSteam

From training to project completion, a full solution to support your operational excellence deployment

#1

Largest 55%

540,000+

2,500

Course Provider
GoToWebinar Attendee Panel
About Our Presenter

Troy Burgess

*Corporate CI Manager*

*TreeHouse Foods*

- 20+ years experience in Lean, TPM, and Six Sigma
  - Westinghouse Electric
  - Abbott
  - Compass Minerals
  - TreeHouse Foods
- MBA, Certified LSS Black Belt
Pragmatic Problem Solving: Agenda

- Culture of Problem Solvers
- Simplify
- Choosing the Right Tools
- Implementing Pragmatic Problem Solving
Culture of Problem Solvers
The Key to “SEE”

• The key to achieving Sustainable Everyday Excellence is teaching our associates to “SEE” the problems that need to be solved.

• Building a company of problem-solvers is one of the most impactful things a company can do towards the creation of a continuous improvement culture.
Culture of Problem Solvers

Barriers

• However, a root-cause culture can be extremely hard to achieve. This is due to several reasons;
  (1) Leadership Reinforcement
  • Leaders often reinforce short-term mentalities like “get it done” or “keep it running” rather than praise long-term thinking such as line-stopping temporarily
  (2) Problem-Solving Acumen
  • Many organizations do not see problem solving as a core competency or bona fide skill needed to perform the work. This training is seen as secondary in nature
  (3) Tool Use Confusion
  • When problem solving systems do exist, associates are often confused with what tool to use and when to use it

The causes and actions to improve leadership and training are well understood. Knowing what tool to use and when to use can be the “black hole”
The root cause tool box can be compared to a black hole of never ending methodologies.

One company listed all the different problem solving methods being used in the corporation. Through its different and disjointed divisions, there were 23 different problem solving approaches.

This type of experience is common in many organizations.
Culture of Problem Solvers
The Sledgehammer

- Organizations use very complex tools to solve seemingly common problems.
  - Of course, we trained our employees so we expect an ROI on that investment.
  - We then spend long lead times and mass resources to solve a problem that was the solution our associates would have come away with in a fraction of the investment.

There is a reason why the old adage "beating a ten penny nail with a twenty pound sledgehammer," is so familiar - we just can't help ourselves!
Problem solving can be dramatically simplified through an approach called the Problem Solving Pyramid.

- The pyramid is typically constructed into three or four levels.
- The largest opportunity is found in level I or “everyday” problem solving.

The base of the pyramid is where the most opportunity resides. Level one is the muscle behind transformative culture.
The levels represent frequency of use, problem complexity, required training, completion time and resource needs; as we climb higher on the pyramid, the frequency of use decreases while complexity, time, training and resources needs increase.
Simplify
How the Pyramid Works

Level III
5-10%

For problems that require use of complex statistical approaches by certified practitioners and cross-functional teams

Completed by qualified leaders and cross-functional teams for problems that require Systematic process application of root cause methodology

Completed by knowledgeable individuals and line teams for daily problems that require simple and practical probable cause thinking and the use of basic root cause tools

Level II
10-20%

Triggered by strategic business project needs. Resolution typically exceeds 60 days

Triggered by abnormal business metrics & special cause trends. Resolution typically does not exceed 30-60 days.

Triggered by abnormal team metrics & daily problems. Does not exceed 1 day.

Level I
60-70%

Complexity, Training and Resource Escalation

Trigger & Time Escalation
Choosing the Right Tools
For Your Organization

• Before you can choose the right “Tools” for your organization, you need to establish the three levels of “methodologies” or types of problem solving.

• Three methodologies that can be easily linked and make sense for most organizations are DMAIC (Level III), PDCA (Level II) and DMAIC-PDCA (Level I).

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<th>Level III</th>
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<td>DMAIC</td>
<td>PDCA</td>
<td>@ Source</td>
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<td>Define</td>
<td>Plan</td>
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Choosing the Right Tools
For Your Organization

• There are many different problem solving tools that can be used

• The tools need to match the culture, familiarity and expectations of your organization

• Although it may add complexity, you can use multiple tools within one of the three levels to match a desired trigger for complexity and use frequency.
Choosing the Right Tools
For Your Organization

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<tr>
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<tr>
<td><strong>DMAIC</strong></td>
<td><strong>PDCA</strong></td>
<td><strong>8D</strong></td>
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<tr>
<td>Define</td>
<td>6Sigma 12 Step</td>
<td>8D 8-Step</td>
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<tr>
<td>Define</td>
<td>Select Output Characteristics</td>
<td>Establish Team</td>
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<td>Define</td>
<td>Define Performance Standards</td>
<td>Define the problem</td>
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<td>Measure</td>
<td>Validate Measurement System</td>
<td>Implement containment actions</td>
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<td>Measure</td>
<td>Establish Process Capability</td>
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<td>Measure</td>
<td>Define Performance Objectives</td>
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<td>Analyze</td>
<td>Identify Variation Sources</td>
<td>Analyze root causes and escape point</td>
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<td>Analyze</td>
<td>Screen Potential Causes</td>
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<td>Analyze</td>
<td>Discover Variable Relationships</td>
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<td>Improve</td>
<td>Establish Operating Tolerances</td>
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This is list of tool examples tied to their methodology. It is important to make the connection that ALL problem solving methods are alike – however, like hammers, some are sized for finishing nails and some are sized for railroad spikes.
Implementing Pragmatic Problem Solving (actual example)

**6 Sigma** – for level 4 opportunities – Used for problems that require more complex LSS tools by qualified practitioners

**A3** – for level 3 problems – Used for larger scale team-based projects or initiatives that require approximately 1-3 months to complete

**SRC** *(Simple Root Cause)* – for level 2 problems – Using Simple Root Cause Tools & Kaizen for larger scale problems that require a cross-functional team and could require 1 day to 1 month to complete

**3C (Concern, Cause & Correction)** – for level 1 problems - @ the source problem solving approach and tools that anyone can use (e.g., 5-Why & Fishbone) – designed to take a few minutes using simple 3C cards or visual boards

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**6σ**
- **Analytical & Systematic**
- **A3**
- **Methodical & Focused**
- **SRC**
- **Team & Tool-Based**
- **3C**
- **Everyday Problem Solving**

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**Trigger Escalation**
- Assigned during Strategic Deployment for opportunities exceeding a 90-day limit and require statistical or systematic approach
- Assigned when problems exceed a 30-day limit or require a kaizen approach
- Completed when designated Department metrics hit “RED” or for problems that exceed 3C Card capability
- Completed when Tier 1 metrics hit “RED” or for problems that do not exceed the pre-set time limit
Implementing Pragmatic Problem Solving

1. Develop an approach and pyramid that fits your business needs and incorporates the effective methods already within your culture
2. Proceduralize the process, triggers, methods and approach
3. Develop and administer training, qualification and needed certifications
4. Build the approach into your business’s Hoshin process
5. Institutionalize the process through Tiered accountability, Kamishibai and leader standard work to reinforce the proper timing, use and effectiveness of the tools
Pragmatic Problem Solving Summary

• The Problem Solving Pyramid is a simple approach
• Regardless of the tools you choose to plug into the ascending levels, the seemingly complex issue of standardizing problem solving methodologies becomes demystified
• Business adoption of the Problem Solving Pyramid will create better alignment of results throughout the organization by triggering a logical progression of improvement activities
• Consistent focus on the bottom of the pyramid where a bulk of opportunities reside can be the transformative key that unlocks the door to a culture of true Continuous Improvement
Questions?

Thank you!

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MoreSteam.com provides practice-based e-Learning and software tools that help you and your organization to rapidly and cost-effectively advance your process improvement performance - no matter where you choose to work.
Thank you for joining us

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