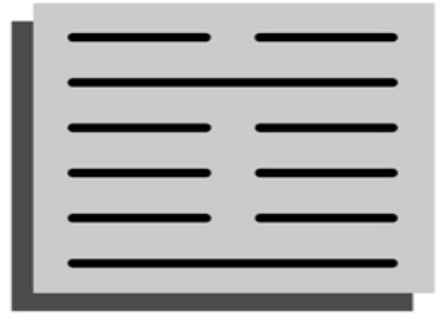


Change Management Associates



June 2011

Featured Topic



What's Your Problem? The Basics of Problem Solving

Dear Drew,

The inability to define a problem is a recurring obstacle that we encounter in our work with various organizations. It occurs during kaizen events that we facilitate, both in manufacturing and non-manufacturing areas, as well as during delivery of our "Lean Leadership" and "Problem Solving" modules. The real objective of lean - to create a culture for continuous improvement in an organization - requires a workforce of solid problem solvers. So, the difficulty with defining a problem represents a very real challenge to our overall objective of operational excellence. As has often been said - 80% of solving a problem is understanding it.

I often ask a seemingly simple question. "What is your problem?" The responses that have been received are a symptom of the issue that I describe. "We need to put in a pull system." "We have too much inventory". "We have a bad layout." "People don't give us the information that we need." "We need to improve the process, our boss told us so." Then there is the honest and probably the most accurate statement, "We don't know." These are just a few examples.

Upcoming Events



CMA and our network affiliates have the following events scheduled:

Maryland World Class Consortia:

Lean Manufacturing Overview with Simulation

Edgewood, MD
July 14, 2011

[Click here](#) for more info

Lean Government Conference

BWI Airport Marriott
Linthicum Heights, MD
August 3, 2011

10:30am - 2:30pm

[Click here](#) for more info

AME Events:

MarquipWardUnited

Hunt Valley, MD

July 15, 2011

"Lean Office & Service Simplified"

Fundamentally, people must be able to distinguish between problem, cause and countermeasure. A "pull system" is not the problem. It is a countermeasure to help resolve a problem. Perhaps the problem relates to poor on-time-delivery to the customer because we don't seem to have what we need, when we need it. Or maybe it is the existence of a great amount of overproduction waste - making more than we need, sooner than we need it. Excessive inventory is not a problem, though it could be a symptom of a problem, or rather the observed impact of a problem such as an unstable process that experiences a lot of downtime. The company may have intentionally added inventory to "buffer" for the downtime. People not providing necessary information is a cause - and not a root cause at that. What problem is this creating? Same for a "bad layout". Further, all of the examples provided are too vague.

A good problem statement consists of the following elements:

- an "Is" condition
- a "Should be" or "Target" Condition
- and where possible, the impact

A problem statement should be clear, descriptive, and quantitative where possible. Instead of "We have too much inventory", we should say "20% downtime on Machine A (the "is" condition) is creating the need for 2 extra days of inventory (the "impact")". What is seemingly missing from this statement is the "should be" condition. Sometimes this is implied. A "should be" condition of 0% downtime can be reasonably assumed. However, in many cases the "should be" condition needs to be more clearly defined. Another way of thinking about it is a problem exists when a process is not operating per some standard condition. The problem is the "gap" between the current condition and the target condition.

Distinguishing between problem and cause is very important because not doing so can lead us down a wrong or narrow path. Confusing a cause for a problem leads us to an assumption of cause. In fact, people prone to do this often feel that they already know the cause when in fact they don't even understand the problem. The danger here is they may be completely off base. It may also lead us to not consider other possible causes. Many problems have multiple root causes. These are two all too common and very dangerous pitfalls that must be avoided. For the example of "we have a bad layout". The assumption is that the layout is the cause of

Site tour of a high mix, low volume business. "Lean Office" workshop after tour including Visual Management for the office exercise.

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Dentsply Caulk

Milford, DE

August 24, 2011

Site tour of a regulated (FDA) company. Pull, 3P, 5S, Visual Controls are tour highlights. A "Visual Controls" simulation will be conducted in the afternoon.

[Click here](#) for more info!

AME Regional Conference

Lexington, KY

August 16-18, 2011

Workshops, company presentations, keynote speakers, and more! Tours of Ingersoll Rand, Square D, Schneider Electric, and others!

[Click here](#) for more information!

Lean Accounting Summit

Orlando FL

September, 14-16, 2011

Workshops, company presentations and more! Held at Disney's Contemporary Resort. This is a must attend event for all finance and accounting professionals, as well as operations managers.

[Click here](#) for more info!

Lean Enterprise Institute

Minneapolis, MN

September 13-15, 2011

5S, Lean Culture, VSM for Manufacturing, Policy Deployment, Leader Standard Work, and more!

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Be sure to check out our

our problem. But what is the problem? Are there quality problems due to excess motion and transportation waste required by the current layout? Is there a lack of capacity to meet demand because we cannot expand in the current layout? Is it excessive lead time resulting in poor customer service or extra inventory that is due to the existing layout? Let's understand the "target conditions" that we are trying to achieve before we start changing the layout.

Distinguishing between countermeasure and problem is also important. Confusing the two will predispose us to a single course of action. A more comprehensive set of countermeasures, often needed to address complex problems, will be overlooked. People who are prone to this pitfall often believe that they already know what needs to be done. However, they may be missing important aspects of the problem, or may be missing the mark altogether. Further, this can undermine the problem solving process by excluding the ideas of others. One of my favorites is when people make comments that basically say that the absence of lean principles is the problem. "Our problem is that we are not 'lean!'" "We need 5S!" And so on. However, lean and the associated principles tend to be countermeasures to help businesses solve problems. This is an important distinction.

To summarize, organizations must strive to instill a culture for continuous improvement, regardless of industry. This requires a workforce of effective problem solvers. This fact is often lost in the effort to implement various lean tools and techniques. At some point every organization must work to develop the problem solving skills of its members. This can only occur through practical application, and must be strongly supported by management, who first and foremost must be solid problem solvers. The result will be an organization that is able to adapt to whatever circumstances (i.e. problems) that present themselves in the future. This certainly would be an organization poised for long term success. Who would not want such for his or her organization?

Best Regards

Drew Locher

Managing Director, Change Management Associates

publications!

"The Complete Lean Enterprise" (winner of a 2005 Shingo Prize)
VSM for Administrative & Office Processes

"Value Stream Mapping for Lean Development"
(recently reviewed in the 2nd Issue 2010 of AME's Target magazine)

"Lean Office & Services Simplified"
Entire chapters on Value Stream Management, Standard Work, Visual Management, Flow, Pull, Leadership. Tactical approaches provided for HR, Finance & Accounting, Purchasing, Sales & Marketing
This will become the definitive how-to book on the subject.

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Entire chapters on Value Stream Management, Standard Work, Visual Management, Flow, Level Pull, "Tools" such as Quick Changeover, Mistake Proofing and 5S, and Leadership. Step by step methodologies to implement are provided. Numerous graphical examples are included. Go to [Productivity Press website](#) to order!

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