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LEAN LEARNING CENTER

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INSIDE THIS ISSUE:

Battling Waste in the Service Industries	1
The Lean Transformation Roadmap, Part 2	5
Champions of Lean: John Smith	9
Guests Win at Hotel Through Lean Thinking	12
It Takes Empowered People	13
Management Lean Learning Laboratory	15
Lean Learning Center Announces 2005 Curriculum Schedule	16

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Battling Waste in the Service Industries

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By *Jamie Flinchbaugh, Co-founder and Partner, Lean Learning Center*



Lean has been mostly focused on manufacturing. Lean manufacturing does not belong in service organizations; lean manufacturing belongs in manufacturing. But we have been far too narrow in our definition, understanding and application of what lean is about. Lean principles and concepts apply equally well in service organizations. There are just two problems. One is that we can not copy what works in manufacturing and automatically be as successful as we were

there. The second problem is that lean is just plain harder in service.

But the results can be astounding. To understand the value of this lean journey, try this simple test of value-added. Value-added is defined by three strict criteria. To be value added an activity must (1) be valued by the customer who is willing to pay for it, (2) change the product or service, and (3) must be done right the first time. Stand in the middle of a manufacturing operation – any manufacturing operation, take a mental snapshot of the process, and determine what percentage of the people you see around you are doing value-added work. Next, go into any service organization and perform the same evaluation. You will consistently find a lesser percentage of people in a service organization that are actually adding value for your customers. Once you experience this realization you may be compelled to learn more about how lean can help. This article will explore what a lean service organization really looks like, what challenges you'll face, and how you can get started.

What are the operational objectives?

One of the first problems that we need to correct is that many service organizations do not have clear operational objectives. Of course, service and revenue are always considerations, but these are not operational objectives. They are only results -- autopsies of the process. Employees in service organizations lack guidance in HOW their organization wants to operate. In lean manufacturing, results metrics are complemented by operational metrics such as lead-time, first-time-through capability



SERVICE EXCELLENCE IS JUST AS DEPENDANT UPON OPERATIONS AS MANUFACTURING EXCELLENCE

and inventory turns. We need to create operational metrics that are predictive, that help guide action and provide focus.

Some metrics can still apply from manufacturing



Battling Waste in Service Industries *Continued*

but collecting the data may prove more difficult, such as first-time-through capability and lead time. Others will have to be created: percentage rate of customer needs being served in their first attempt, number of layers that questions have to be surfaced to be answered, percent of value-added time for a service worker, etc. Because service organizations do not have as clear a picture of their current reality, these predictive operational metrics will help paint the picture of their true performance.

How is lean service different from manufacturing?

Once accepting that lean does apply to service organizations, it is important to understand how service is distinct from manufacturing. Some problems in service are more pronounced and others more subtle, but the most significant differences are in how you must go about creating change.

THE SEVEN WASTES

In order to highlight where the problems exist in service, we can use the lens of the seven deadly wastes. Most of you can probably recite these seven wastes: overproduction, waiting, motion, transportation, overprocessing, inventory and defects. They serve as both a lens to see waste and a language to communicate

it throughout a lean organization. A lean organization is committed to the elimination of waste everyday by everybody.

In manufacturing, inventory is often a dominant consideration, particularly early in the journey, because the pure cash tied up in it. But in service organizations (except retail and distribution), inventory is a minor factor. Much more dominant wastes are found in the form of waiting, motion, overprocessing and service defects. For examples of waiting and motion, we don't have to look much further than your local hospital. Nurses in hospitals are known to seek out the best footwear possible because they travel many miles in a day (waste of motion). Some examples have shown that nurses can spend 2/3's of their time looking for information or material, which has been dubbed "nursing the system" leaving little time for nursing the patient, which is the true value-added work. In collaborating with the Pittsburgh Regional Healthcare Initiative to bring lean to healthcare, I visited a hospital that was celebrating a small success (of many successes) as part of their work in applying lean. Nurses had to seek out the right person for the medicine cabinet when they didn't have what they needed. This problem could easily tie up 20 minutes a day...for each nurse! When using the lean lens they simply asked "why can't everyone have a key?" and

today the amount of time saved of the nurses is significantly benefiting the patient.

During my visit to the Pittsburgh hospital during a lean class, I had the chance to observe the waste of waiting. I spent 90 minutes observing the physical therapy (PT) and occupational therapy (OT) departments. Most patients visiting for the day visited both areas. OT was reached first when passing through the hall and so the escort always checked to see if there was room and placed them there if there was. Only when OT was completely full did patients start moving to PT. By that time, people were being released from OT and showing up at PT, creating a huge line. This ebb and flow of patients back and forth in an uneven way created an average wait of 15 minutes per patient with some waiting 45 minutes. This wait could easily be cut by 75 percent if a visual management system was used to ensure an even distribution of patients across OT and PT, an opportunity that was identified during the class. For another perspective on the waste of waiting, during a recent visit to the hospital with my wife for the delivery of our son, I tracked the wait times for patient requests. The average wait time was over 30 minutes. Perhaps more telling was that the shortest wait times were for relatively trivial issues where issues that were more urgent took the longest. And finally, some requests were

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HEALTHCARE HAS DEMONSTRATED GREAT POTENTIAL FOR LEAN SUCCESSES

Battling Waste in Service Industries *Continued*

never fulfilled.

The waste of overproduction can sometimes be hard to detect, because it's often disguised as "we're doing more for the customer." But when that something is more than the customer values, it is the waste of overprocessing. In manufacturing, these often surface as tangible features which can be discovered and eliminated. In service, however, the waste of overprocessing is demonstrated through thousands of examples which individually seem insignificant but together add up to a major opportunity. Examples include the hotel that replaces the soap and shampoo after one use or the fast food chain that stuffs 40 napkins in a bag for one person. Each of these wastes when challenged will be met with the same response: "bring me something bigger." But when these events occur across thousands of customers and occur in thousands of different individual ways, the final tally can be astounding.

Lastly, the waste of defects is an obviously evil one. However, in service it can be more dangerous. You are five times as likely to lose a customer from a service error as you are a product failure.

DAILY PROBLEM SOLVING

In a lean manufacturing

environment, daily problem solving is enabled through a combination of new skills and designing the system to make problems visible. In a pull process, when two operations are connected through stock replenishment signals, if there is a problem at either end of the customer-supplier chain, that problem is immediately surfaced. This is often misunderstood but it is one of the primary purposes of pull, not the reduced inventory which so often emphasized. Every day as problems are surfaced they can be solved making the system stronger one problem at a time.

In a service organization, problems are less visible. That is because our buffer, the thing that protects us from all the little problems, is not a tangible element such as inventory but is instead less tangible – time. The service organization must make problems visible but also create structures that force the organization to start solving problems as they occur and not just work around them.

One of our clients is a natural gas supply organization where the service stations were tasked with everything from leak response to turn-ons to gas appliance repair. While no less efficient than any other service station, this station was convinced to explore the idea that waste exists in their process. In order to surface problems in the process without being overwhelmed, they

focused on just one aspect of the process. They chose something that would have a positive ripple effect if improved and would involve and affect the front-line workers. They framed the improvement work around this question – what keeps us from getting to our first customer by 8:30 AM? Whenever an employee would not meet the objective of getting to the first customer, problem solving would commence. Some problems had only a minor impact, but the sum of constant problem solving helped them reach their goal. In fact, they improved the percentage of reaching the first customer by 8:30 AM from a paltry 11 percent to a world-class 93 percent. Barriers still get in the way but when they do, problem solving again commences. Some of the solutions to problems that they installed include dedicated locations for staffers to leave needed parts and information, coordinated visual layouts for truck parking and keys and a structured help chain of how to get the right help when you need it without repercussions. More problems were solved just by putting in place simple but alternative methods that were more consistent with their objectives. Instead of testing parts before they left for the day, they had the off-shift test parts so that they were all approved before the day-shift came in. Also, the assignment of calls was somewhat haphazard and they were reorganized so that, when possible, the first call was no more than 15 minutes from the



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LOOK BEYOND MATERIAL WASTE TO WAITING, MOTION AND OVERPROCESSING



Battling Waste in Service Industries *Continued*

station and subsequent calls were no more than 15 minutes from each previous location. With being on time for the first call 93 percent of the time they have been able to have more consistent and predictable days allowing even more room and resources for further improvements.

OBSERVING WORK

Direct observation of work is one of the most challenging lean skills to master. You must be able to observe a process and truly understand how the activities, connections and flows of the process are creating the results achieved. In manufacturing, however, the environment is ripe for being able to practice, develop and leverage this skill. The process can unfold before your very eyes with the motion of people, equipment and material. But in service, it is much harder to observe processes. A greater use of tools to help you observe work will be required as this skill is developed. Process mapping can be very useful to help you understand how a process is really working, but not the process maps you are used to seeing. Particularly in service, what happens to the people and what happens to the product, information or service are often separate and so putting two distinct processes on the same map will not lead you to a better process, only confusion. When we lead a service team through process im-

provement, we use different maps to explore the different aspects of the process. The Activity Map captures what the people do. The Product / Process Map captures what happens to the product or service. And as we capture current reality, we look at how the activities, connections and flows of the process are designed and executed.

We have consulted with many automotive dealerships, a very service-oriented business, but one marred with counter-productive processes and a silo mentality between departments. In one dealership through observing work we found that the biggest barrier to getting service done in the prescribed time was variation in availability in parts from the parts department. This was a process problem – parts needs were communicated in terms different from how they were recorded and the means to communicate was walking to the service window, waiting in line and finally asking for the parts they needed. This was a very broken connection. The solution was to punch in the parts request from the service bay through the terminal and when the parts were ready for pick up (at a designated drop location) the service technician was notified. While the technician still has to wait for parts, that time is now utilized improving overall service productivity.

Solutions

So given that lean does apply in service but it is distinct and harder, what must be done differently? I will suggest three specific tactics that should be followed to make lean service succeed. Everything we have learned to do in manufacturing for lean transformation will also apply in service, but these three tactics will be extraordinarily essential.

Leverage events

Lean is NOT about events, it is about everyday behaviors, skills and thinking. But in order to create that environment, events will be necessary. In a service environment, events such as kaizen workshops can break through the substantial cultural barriers that exist and force the change. Substantial momentum exists in service against any changes. Through kaizen events you can facilitate the process changes, thinking and behaviors that you need to create change, breaking the stagnation and providing the launching pad for further work. But don't overly rely on these events or they will become your only mechanism for change severely limiting the potential for performance improvement.

Create a living model

Words and training will not

**“LEAN IS NOT
ABOUT EVENTS; IT IS
ABOUT EVERYDAY
BEHAVIORS, SKILLS
AND THINKING.”**



EXPERIMENT IN A LAB ENVIRONMENT, THEN APPLY THE LESSONS ACROSS THE WHOLE ORGANIZATION

Battling Waste in Service Industries *Continued*

help people in service really understand what you mean when you say “lean.” In order to convince them that lean will be good for the organization and to show them what the potential is, a living model of lean must be created. By focusing on a small area or department, anywhere from 5-20 people, you can accelerate the journey to lean creating in a relatively short period of time living example of what lean could look like in the organization. This will also provide a plethora of lessons from real application on the leadership and implementation issues that the organization will face when dealing with a broader transformation.

Communicate the vision

Perhaps because service is often less precise that

manufacturing, a greater acceptance of failures and gaps in the process exists. A tangible image of the ideal state of a production process is within our reach but a tangible image for service seems more elusive. The vision of the ideal state is an important marker because it tells us where we need to go and provides the tension or energy for getting there. The vision is not communicated most effectively in the results (zero defects, etc.) but in how the process could work. Because it is so less obvious to those in service you will have to work extra hard to achieve a common understanding of this vision.

Conclusion

Lean was never meant to be exclusive to manufacturing, but due to massive fo-

cus by consultants and media on it's use in manufacturing, the service industries have largely ignored this powerful method for transformation. While in manufacturing lean has been mostly but not exclusively focused on efficiency, in service quality and delivery of service are of highest priority. Making lean work will be a greater challenge but for this reason, it is also a great opportunity to distinguish yourself from the competition. The results can come quickly and continually. In only five months, one hotel who sent only one person to our Lean Experience program raised their customer service rating nine points through lean application. Service can not rely on product features – execution of service is everything and lean can be the driving force to provide reliable value-added service.



**“BE BIG ABOUT THE
PETTY STUFF AND
PETTY ABOUT THE
BIG STUFF.”**

**-FROM *THE GIFTED*
Boss**

Lean Transformation Roadmap, Part 2

This is the second part in a 5-part series that originally appeared in Start Magazine.

Navigating Your Way to Successful Lean Transformation

By Andy Carlino

Last issue we began the discussion on the five-phase roadmap for lean implementation. In Phase 0 (Zero) we investigated the characteristics and approaches used to explore the applicability of lean to your business environment and a potential start-

ing point. This next phase assumes you have made a decision to move forward with your lean implementation. You have determined “what” you want to do. Now you must examine “how” you are going to do it.

There is an important distinction to be made here. Recognize that Phase 0 is a focus on business conditions and not a business type. Simply stated, lean applies to every type of industry as long as it is recognized as a way of thinking. Lean is about rules

and principles, not a collection of tools. Unfortunately, lean is often determined not to be applicable to certain industries because it is equated with tools (kanban, Five S's, takt time, TPM). If these tools don't fit the business, lean is deemed to not be appropriate. The key is to first understand the rules and principles of lean and then to engage the best tool -- one that will manifest lean thinking -- for that industry.

Interestingly, my experience suggests that, regardless of



ANDY CARLINO IS A CO-FOUNDER AND PARTNER OF THE LEAN LEARNING CENTER



Lean Roadmap Continued

industry type, the lean transformation roadmap also applies. I've seen it in auto and aerospace manufacturing, healthcare, electric and gas utilities, food processing, auto dealerships, electronics, medical devices, consumer goods and many more. It makes no difference what you produce or what service you provide. Lean will apply and you will go through the phases, either unwittingly, or through a planned effort. Your awareness and understanding of these phases will be an important element of your success.

Before venturing into Phase I, it's important to clarify some misconceptions specific to lean systems development.

“LEAN IS NOT ABOUT TOOLS.”

It's About Systems

Every chance I get, I'm going to get on my soapbox to preach and to push, “lean is not about tools!” As previously mentioned, many people and organizations view lean as some assorted collection of tools. This limited snapshot of what lean is all about is the single biggest contributing factor to failure. Unfortunately, many more companies fail (or don't reach their potential) than succeed on their lean journey. I'm appalled and overwhelmingly disappointed in the failure rate. It is a symptom of less than stellar performance from the lean “experts,” and I will confess that, in the past, I have been as guilty as others. It's time for us “experts” to recognize (first) and admit (second) that we must stop selling and imple-

menting lean as Kaizens, Five S's, TPM or some other tool (s).

Remember that old saying “If all I have is a hammer, then every problem is a nail.” Certainly tools are an important part of the lean system. I can't fix my car without tools. But the tools are no good if I don't understand the mechanical system of the vehicle.

Lean systems require that you understand the thinking of lean -- you need to recognize the purpose of what you are trying to achieve in order to select the appropriate tool. It also requires that you have an evaluation element (performance measurements, incentives, etc.) that not only reflect your achievement, but actually drive the appropriate behavior. And lastly, you need internal systems (IT, HR, etc.) to connect the organization together. It's the combination of thinking, tools, evaluation, and internal connections that constitute a lean system--and lean thinking is at the core.

Lean is a journey—it should never end

One of the questions I most often get asked is “When will I be lean?” The answer is simple—NEVER. If you think that there is some end point when you can proclaim “We are lean,” then you are mistaken. You may be leaner, but true lean is a journey that never ends. There will always be a gap between where you are (current state)

and where you would like to be (ideal state). Since there will always be a gap, there will always be an opportunity to improve. Proclaiming you are lean will only serve to draw a line in the sand and effectively stop any forward progress.

However, there is a need to proclaim successes along the way -- to recognize and reinforce the sense of accomplishment by the organization. True success, however, is when an organization continues to move forward at such a pace and with such a passion that, regardless of how well it performs, it is difficult to slow it down and impossible to stop. Toyota just recorded a \$10.2 billion profit for last year. In that very same year, they reduced operating expenses by \$2 billion dollars. Toyota is a company that, by most people's standards, is lean. Good thing Toyota doesn't think that way. Their strategy never changes. They always focus on the ideal state. They simply execute that strategy better every year.

Now, back to the roadmap. Last month I explained that the lean roadmap is simply a guide. It doesn't prescribe the route you take. It simply helps identify the different routes. I also mentioned that the lines between each phase are blurred. You will likely not clearly fit into any one phase, nor will there be a clean break from phase to phase. You may even move back and forward through phases.



LEAN IS ABOUT MORE THAN
BUILDING TOOLS LIKE A
STACK OF BLOCKS

Lean Roadmap Continued



Phase I is about Establishing the Foundation. This phase is characterized as the surface application of the basic tools of lean as well as the beginning development of the lean culture—the rules and principles. In this phase we focus on building an understanding that lean is about a way of doing business and not simply a series of events or projects.

This is also the phase where you begin to understand and apply tools to uncover the true current state and begin to build tension in the organization. Tension is important for an organization if they are ever going to recognize and embrace the potential of lean operating systems. Tension is developed by defining an ideal state, having a deep understanding of the current state relative to the ideal state, and then exposing the gap between the two. The wider the gap, the greater the tension.

You can use this model for the smallest of activities all the way to the vision of your business and everything in between. This is particularly critical in companies that are performing well, or at least performing well against their own standard or an industry benchmark. If your business is in trouble, you won't have to worry about building tension. You won't just have tension, you'll likely have stress. I've worked with organizations that, when exposed to the gap, relieve their tension by lowering the vision of their ideal state or inflating their current state. Most of the time, organizations simply choose not to recognize their true current

state. This is where the lean tools can be invaluable. The Phase I approach elements are generally defined as follows.

Education

Education begins in earnest in this phase. The individuals that are taking critical leadership and implementation roles in this early state are developing a deep understanding and appreciation of the rules and principles of lean. They realize the purpose of the lean tools is to act as a countermeasure to problems and as a vehicles that reveals lean thinking. The how-to or skills development for lean tools is best accomplished through application. However, the focus will be primarily on the basic tools. One very effective method to develop these lean tools skills is the "Learn, Apply, Reflect" approach. Learn -- Provide the training and expose them to the why and the techniques of how to implement a tool. Apply -- Transfer learning immediately to their area where they can test and apply the new found knowledge, always recognizing the improvement or potential for improvement. Reflect -- Review the effectiveness of the application, validate the internalization and continue to do what was done well and do differently what needs to be done better.

Application

Application is a very big part of this phase as well as all subsequent phases. In this phase, it is typically focused

on one or many small areas of the organization. For example: In a food processing company with multiple plants, we started in a small area in each plant. However, we focused on a different area in each plant. In one plant we were in maintenance; in another we were in processing; and in packaging in another. This gave the company the opportunity to learn from different areas. The primary purpose of the application is to test the effectiveness of various basic lean tools and to engage the organization in some small, yet meaningful and highly visible improvement activities. Application at this phase should also be used to evaluate the organization's response – the feedback needed to help assess the continuing implementation plan. Rest assured that, during this lean journey, you will often revise and refresh your implementation plan. Application in this phase is more about learning and cultural change than it is about breakthrough results.

Communication

Communication in this phase is used to build the "burning platform" that helps the organization realize the importance and value of lean. It should enlighten the organization of the potential while providing insight into what lays ahead. This is also the phase where you must recognize the need to manage expectations. This is one of the single biggest challenges during the journey and, if not addressed during Phase I, becomes increasingly difficult to manage in later phases. The old adage "under prom-

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KEEP YOUR COMMUNICATIONS FOCUSED—DURING PHASE 0, IT'S THE BURNING PLATFORM



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**THE CLOCK IS TICKING FOR
YOU TO BUILD THE FOUNDATION
AND ESTABLISH A
FOOTHOLD**

ise and over deliver” serves an organization well in this early stage. I’ve performed many, lean assessments of organizations. It becomes immediately evident that an organization has not done a good job of managing expectations when I hear statements such as: “We’re moving too fast,” “It’s going too slow.” “It doesn’t apply to our area of the organization.” “I don’t see any results.”-- all from the same organization.

Communication can take many forms in this phase, but the message needs to be the same. You can use existing channels of communication such as newsletters, town hall meetings, bulletin boards and other formal mechanisms. One approach we have found it to be very effective, is to develop a “cascading” communication plan where the message cascades down through each level of the organization starting with the CEO down to the shop floor. The only caution with cascading, as with any direct person-to-person communication, is to insure the message doesn’t get diluted or filtered to suit the messenger.

Infrastructure

You have an infrastructure in place to manage your business. You should also develop an infrastructure to manage your lean implementation. In this phase, the efforts are probably focused more on role clarification and assigning of specific responsibilities than on building a hierarchy. This infrastructure will be completely dependent on the resources you have or

Lean Roadmap Continued

make available. This is also the phase where external resources will be of the greatest benefit. It’s in this phase when you may ask questions like:

Do I commit full time resources to this effort? (lean specialist)

Should I build an internal lean group competency?

Do I centralize or decentralize the lean expertise?

What does my management oversight look like?

Additionally, you likely will be establishing some clear goals and metrics as lean targets for the organization. The infrastructure will evolve over time as more resources become available and the lean expertise of the organization matures.

Time Frame

Phase 1 should not take more than a year, even in the most resource-constrained organization. My experience suggests that if you have not established a solid foothold for lean and demonstrated measurable results within the first year, you can expect organizational support to diminish and attentions to focus elsewhere. As with all cases, there are exceptions. At a medical device manufacturer, their first-year focus was to establish the culture, so they were less concerned with the metrics. In another instance, a construction products manufacturer suffered from a series of unavoidable interruptions during the first year. However, they stayed

focused, never changed their objectives, and simply moved their implementation milestones out until they stabilized.

Tools and Methods

The application of the tools in this phase has three primary objectives. The first is to stabilize operations for testing and experimentation. The second is to provide the foundation for sustained learning and the internalization of lean thinking. And lastly, to achieve measurable results — to realize a real return on the investment.

Some of the tools to consider include Kaizen Events, Waste Walks, Learning Laboratories, Five S’s, Visual Management, Standardization, and a few others. No single one of these tools will satisfy all of the desired objectives. I recommend a combination of tools, some implemented in parallel and others in series. For example: A Kaizen Event is designed to achieve rapid measurable results while Learning Laboratories are designed to act as living organisms that instill lean skills and thinking in a small part of the organization. The parallel application of these techniques will easily satisfy the three primary objectives.

Another example: Executing Waste Walks should be one of the first, if not the first, lean skill to be developed, even before Five S’s (which is often used first). This allows the organization to identify opportunities for improvement, to observe their cur-

Lean Roadmap Continued

rent reality, and to understand and appreciate the purpose of the other tools. Five S's then becomes recognized as far more powerful than just a housekeeping tool if the potential for waste elimination is obvious.

Results

In this phase, results should be based upon getting measurable performance improvement as well as establishing a foundation for the cultural

transformation. If a company needs strong performance gains quickly, the company can pellet the organization with Kaizen Events and/or move quickly to Phase 3. Recognize, however, that a proper foundation will not have been established and you likely will pay the price later in the lean implementation.

Typically, performance gains will be localized and the metrics will be fairly standard: safety, quality, delivery, and

cost. Broader metrics like lead-time will probably not be impacted since there has not yet been a broader systems approach in this phase. The results should be used to examine and assess the effectiveness of the internalization -- Have things "stuck"? Are behaviors changing? Are the rules and principles vocalized?



Champions of Lean: John Smith

Interview by Jamie Flinchbaugh, Co-Founder and Partner, Lean Learning Center

This issue we begin a new feature called Champions of Lean. Each time we will highlight and interview a lean leader from the front lines of lean transformation. We will hear in the first person the lessons learned from years of efforts, all successful but not without challenge. We begin this series with an interview of John Smith, COO and lean leader at Ross Controls. John has been on a continual learning journey, combining jumping into operations with both feet from finance and personally leading the lean transformation at the same time. A participant in the first Lean Experience held at the Lean Learning Center, he returned in 2004 along with the rest of the senior management of the global Ross Controls team as the

company expands its lean transformation beyond manufacturing.

John G. Smith is the Chief Operating Officer and Senior Vice President of Ross Controls. He has more than 30 years experience in manufacturing. His career began in the area of finance, where he served in various management positions including Chief Financial Officer. He was promoted to Operations in 2000 where he is involved with implementation and deployment of Lean Principles and Practices. As part of the journey, he has successfully developed a Lean Culture at Ross including the transformation of many processes in its manufacturing facilities in Michigan (a union environment) and Georgia (a non-union environment).

JF: How has your lean journey unfolded so far?

JS: Our lean journey has been very successful. Over the past two years we have taken substantial dollars out of our inventory. Better yet we have been able to change the mix of inventory from a heavily weighted FG and WIP inventory to a mix favoring Raw Materials and WIP. This reduces cost and allows for more flexibility which is important in our business. We are much more dependent on throughput rather than the high cost of trying to determine which products should be 'on the shelf'. Because our employees have learned the value of waste elimination, from their Lean education, and how important customer service is they understand the value of improving through put. More importantly they are really beginning to understand the key to waste elimination is in process improve-

**“WORK IS MORE
THAN PEOPLE IN
MOTION.”**

- SHINGEO SHINGO



**JOHN SMITH, COO, ROSS
CONTROLS**



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THE LEAN EXPERIENCE WAS
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TRANSFORMATION

Champions of Lean Continued

ments and standardization of process and procedure.

Of course, like all journeys, we encounter a 'fork in the road' occasionally. Sometimes we have been fortunate and taken the correct way and other times we have taken the less favorable way. When we take off in the 'wrong' direction we take advantage of the trip and do a little sightseeing and try to learn from the experience.

JF: What has been your greatest victory?

JS: It is hard to imagine Victory with Lean. Since Lean is a journey and not a destination you cannot have victory over it but maybe small victories within it. To not be victorious implies defeat. Defeat is not an option. One could only hope to enjoy the high points and learn from the low as we travel along the winding path of Lean. High points come when you see employees eyes light up when they recognize the meaning of a lesson on lean. Or, when employees apply the Rules, Tools or Principles of Lean without encouragement from others. The greatest satisfaction comes from seeing the culture of your organization change: Seeing those who in the past have approached life with a jaded view begin to smile and feel self worth as they implement an idea that in the past would have landed on deaf ears. Seeing those who have suffered through life always being

right see the value of a team members contribution. Or, when a person, using their new education, begins to invest their effort in teaching others the value and rewards of improvement over the unrewarding status quo. Lean offers everyone in the organization a reason to be successful in what ever they do.

JF: What has been your greatest failure or struggle?

JS: Failure is not an option but yes there are many struggles on this journey. How can you possibly learn if you don't make mistakes. I don't think I could list all of the mistakes I have made on this journey. However, it is important to understand that with Lean we must encourage others to take chances and make improvements they feel are possible. If it works we have made progress, if it does not work we 'reflect' on why it did not work and learn from our mistake. I view mistakes as good learning experiences and opportunities to make change. It is the famous two steps forward and one step back. Sometimes it may be two back and one forward. A Kaizen that had such potential that rendered only minimum results or the constant battle of keeping others interested in the true value of Lean. We do not have the luxury of having someone dedicated to lean but rather work toward everyone seeing the value of Lean. My greatest struggle is consistency. It is so easy to get caught up in

the "day to day" of the business and all of the issues that we all deal with that all of a sudden you realize it has been a week or two since you have spent time teaching.

JF: What result has most surprised you?

JS: I don't know if I could identify a single result that has surprised me the most but I can say that I am blown away how little changes can have big impacts on our business. It is understandable why Toyota concentrates on many small changes rather than the big home run. We have seen small changes made by one person encourage a small change by another person. The infectious idea of one person making a small change that causes a change in behavior by another person is remarkable.

JF: How have you deployed lean tools through the organization?

JS: We have used many (not all) of the tools provided by Lean. I have found that using the tools is relatively easy. People can learn the tools and understand the benefit of most of them with proper instruction/education. Our work environment is cleaner and more organized, we understand the need to eliminate waste and for the most part people recognize that waste elimination is essential for us to be competitive in today's mar-

Champions of Lean Continued

ket. However, people recognize that the tools alone are not enough to get the job done. A change in behavior and in thinking is required to make real improvement. The key to real change lies within the rules and principles of lean. High agreement, what is it?, how do you reach it?, how do you apply it? Systematic problem solving, Who does it? How do you make it a part of everyone's day to day thinking? Yes, we do use the tools and for sure they are a required part of lean but I don't believe that the tools will get the job done. Like many people we erred on the side of implementing tools when we first began and learned very quickly that if we were going to be 'successful' with lean we needed to concentrate on changing the way we think about what we do. To change the way we think we recognized the need to change the very basis of how we think and act each day which meant we needed rules and principles to guide us.

JF: How do you know if the lean culture is catching on and becoming sustainable?

JS: This is an interesting question. There is no doubt that our culture has changed. However, there is also no doubt that the more it changes the more we see the need to change it more. It becomes obvious why this is called a journey. We have seen substantial improvement in our culture, people who in the past have been

'written off' have become fantastic employees and real contributors. That is culture change. We have seen people, or groups, who in the past would not work together now seeking advice and help from each other. That is culture change. We have seen some of the company 'nay Sayers' turn around and actually begin to sing a little praise for what Lean is and what it has done for the company. That is culture change.

Sustainable? Yes, I think it has become sustainable but, I also believe it could slip away over time if not held out as being important to our business and supported with a relentless effort by company leadership. The need for change and continuous improvement has become a part of our culture and has become a sustainable part of the way we think.

JF: What would you have done differently if you could start over?

JS: We started by trying to teach people the tools. After a couple of months of effort we realized the people were not becoming involved and the tools alone were not the answer. After changing our attitude on what was important we began to teach the need to change the way we think and run our business. We used the rules and principles of lean everywhere possible to teach this need and things began to change

in our company. Would I do it differently if I were starting over? Of course, but only because hind sight is 20 - 20. This was a mistake for us but it was not devastating. We need the tools but we needed the principles of Lean more. We needed to teach our employees 'how' to make change and 'why' it was not threatening to them. Lean is all about learning. The important thing is to start. Regardless of where you start you will make a change in the approach as time moves on because you will determine the most important area of need in your particular organization.

JF: What have you changed about how you do your own work?

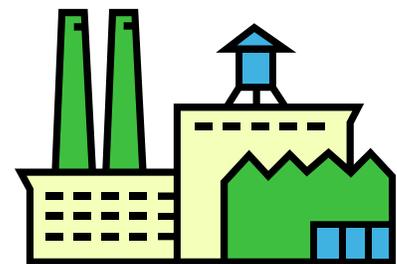
JS: I have but one job - to educate and promote others. No one person is perfect but, a team can be. I have always believed my job was to promote others but lean has taught me that that can only be achieved through

JF: What are you next steps? Where will you go next on your lean journey?

JS: We started our Lean journey in Manufacturing. Everyone in our company has seen the benefits and the changes in Manufacturing. Recently we have added our Corporate group into the lean environment. Training and Education have taken place and we held our first



“WE DO USE THE TOOLS AND FOR SURE THEY ARE A REQUIRED PART OF LEAN BUT I DON'T BELIEVE THAT THE TOOLS WILL GET THE JOB DONE.”



ROSS CONTROLS FOCUSED ON MANUFACTURING FIRST



Champions of Lean Continued

Kaizen event with the Corporate Group. This Kaizen included Engineering, Marketing, Communications, Legal and Finance. Our next step in to expand the Lean culture into the G & A groups of our Company.

ment is fun. One or two Improvements uncover the need for other improvements. Lean is like a pebble (improvement) pitched softly into a still pond (the work environment) creating ripples (more improvements) that grow larger (viewable) and larger into each other.

My summary thoughts are this ~ it has become very clear to us that Lean is a way of life. It is also clear that regardless of the number of changes we make we see the need for more. Improve-

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**“SUCCESS IS GOING
FROM FAILURE TO
FAILURE WITHOUT
LOSING
ENTHUSIASM.”
- WINSTON
CHURCHILL**

Guests Win at Hotel through Lean Thinking

By Jamie Flinchbaugh, Co-founder and Partner, Lean Learning Center

People tend to think of “lean” as a way to run a business that manufactures something, whether it is a vehicle or a can of food. But, lean can just as effectively be applied to a service industry, from healthcare to retail. Simply copying the tools and techniques of lean manufacturing, however, will be a path to sure disaster or at least, disappointment. A lean service organization must focus on lean thinking in order to determine the right tools needed to solve the problems unique to service. It all starts with one question: What kind of organization do you need to become?

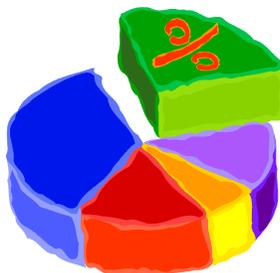
served many of our clients, who come from all over the world to attend classes at the Lean Learning Center. After seeing so many different types of companies stay at the hotel, Operations Manager Heidi Lyman decided to attend our 5-day Lean Experience program, which opened her eyes to the world of lean thinking.

As a result of applying lean to its operations, the hotel’s service score rose 10 points in less than one year to 87 and went from the bottom half to the top 10 percent in its peer group. That not only is a great impact on the customer but returns to the hotels repeat business impacting the bottom line.

How did the hotel do it? Their success came through the application of some basic lean principles which are common in manufacturing

but have often failed in service. The reason they have failed is that people copied the tools from manufacturing. What we have learned is that instead, you must start by changing the thinking? That can take a service organization, including Marriott Towne Place Suites, in a different direction.

First of all, Heidi changed her vision of the ideal state. She went from thinking that she should have daily interaction with guests to believing that she should never need to talk to guests; this was not because she didn’t want to serve them and their needs. This new state was founded on the idea that if everything is working perfectly, processes happen and employees are equipped with what they need to support the guest. The Operations Manager should not have to solve every problem herself. This is huge shift in thinking for this industry. It isn’t that the



**MARRIOTT’S CUSTOMER
SERVICE SCORE SKYROCK-
ETED THROUGH BETTER
SERVICE**

Hotel Continued

manager didn't want to meet and greet the guests; it's that she understood that "not being needed" is a sign of a well-oiled machine.

The second lean concept focused upon was make connections to the customer. Within a hotel, the guest is certainly the end-customer. But, with the Operations Manager's new vision of the ideal state, her employees now became her new direct customers, not the hotel guests. The manager made it her responsibility to understand what each of her employees needed in order to perform their task of serving the guests. This allowed her to now spend time designing the work and functions in order to provide value to the guests.

Lastly, the hotel designed a responsive system. The Operations Manager was there to serve the employees who, in turn, served the guests.

She had to rethink and reexamine her role and her processes in order to now treat her employees as the customer. This worked well, since this was in line with the values of J.W. Marriott himself - take care of the associates and they will take care of the guests.

In accessing what was needed, she saw that the room cleaning process could use more support and structure. To accomplish this, a member of the cleaning staff was appointed as Team Leader. This person has many roles - getting parallel processes such as laundry started earlier instead of having to wait until everything was collected, performing room inspections to ensure quality and coaching staff on key job skills. But, perhaps her most important role is being that key go-to resource. After restructuring this process, it became standard protocol that when one of the cleaning crew enters a

room and recognizes that they will exceed the 50-minute standard cleaning time, they call the Team Leader for backup. This ensures they will get every room done on time without adversely affecting the rest of the cleaning schedule.

Small changes like this have made cleaning more efficient and effective, and most importantly for the impact on the guests, predictable and reliable. And, despite appointing one of the existing crew to the new Team Leader role, they haven't had to increase paid-hours due to the offsetting efficiencies that were gained.

There are many other examples of this kind of improvement at the Novi Marriott, which are "invisible" to you as a guest, but that, one-by-one, make this one hotel a shining example of a lean service organization.



**“ON-THE-SPOT
OBSERVATION
RATHER THAN
DEDUCTION IS THE
ONLY CORRECT WAY
TO ANSWER A
‘WHY?’ QUESTION.”
- TERUYUKI
MINOURO, TOYOTA**

It Takes Empowered People

This editorial originally appeared in Quality Magazine.

By Paul Mullenhour, Partner, Lean Learning Center

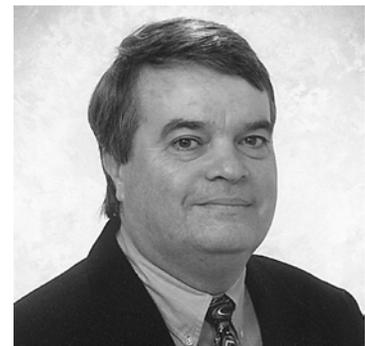
Six Sigma is a powerful tool for effecting change within an organization. Since it was developed in the late 1980's it has helped companies

dramatically improve business processes, increase customer satisfaction to all-new levels and save hundreds of millions of dollars. To say it has the ability to transform a company is certainly not an exaggeration in my book.

Yet for some companies, Six Sigma has not lived up to its reputation - and this appears to be a source of wonderment to those who fail to

realize that embarking on Six Sigma implementation is more than signing on to a good idea. It takes realistic goals, a strong leadership team and above all - an empowered workforce.

Recently, while visiting a client site, I was involved in a round table discussion with Six Sigma Master Black Belts. As I listened to the group discussing frustrations



PAUL MULLENHOUR IS A PARTNER WITH THE LEAN LEARNING CENTER



**“NO TECHNIQUE,
TOOL OR
METHODOLOGY CAN
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EMPOWERED
PEOPLE.”**



**PEOPLE MAKE SIX SIGMA
GO, NOT TOOLS**

It Takes Empowered People Continued

encountered during the early stages of their Six Sigma launch, one common frustration became apparent. Their people were not working together on improvement projects. It made no difference if they were senior management, Lean Champion or hourly worker - there seemed to be no sense of team.

Upon hearing this, a consultant in the group said something that shocked me and it has stuck with me ever since. He said, “People are expected to get along with each other. They are expected to act professionally. If they resist, then you need to eliminate them and find new participants.”

Now, it comes as no surprise to me that whenever I review with a client company the reasons why they are not experiencing improvement quickly enough, the problem of people not being fully engaged and committed remains one of the top three hurdles. The fundamental message here is simple, yet not universally understood so at the risk of sounding like a broken whistle - let me say it again. No technique, tool or methodology alone can improve a process or system. It takes people - empowered people - to drive Six Sigma change.

The first step in empowering people is to realize that the implementation of Six Sigma and the resulting changes in a company's infrastructure will affect the way people perform their jobs. Very often companies do not realize the impact this change has on its workforce. As a

result, minimal success is realized and employers hear excuses such as, “Not invented here.” “We already tried that.” There is a resistance to change because the key issue of “What's in it for me?” is not being addressed.

There is a lot of talk about competition, job security, and the old “If we don't do this we will close,” scare tactic. But, to ensure Six Sigma success, it is time to make people feel involved and that they are key contributors to the big picture. People must feel as if they have ownership in the goal - accountability and satisfaction of improving their own world in order to help their company be successful. “If I do that I will be rewarded both in job satisfaction as well as money” is not a bad expectation, and it is one we need to be addressing.

Companies also need to address and improve their Enabling processes - such as Information Technology, Finance, Marketing and Human Resources as well as other core processes. Doing so will accelerate the overall improvement effort.

Speaking of Human Resources, it plays a huge role in how we manage change. Companies may claim that their employees are their most valuable assets, yet when we ask employees to change to improve systems and processes, we often forget that we have to help and develop them. People must have the opportunity to “unchange before they change” and to make this happen, companies must focus their attention on

training and on rewards. This is where the HR involvement is critical to the success of any Six Sigma initiative.

To ensure success with Six Sigma, more and more companies are realizing the merits of integrating Lean Systems Thinking (Principles and Rules) and the Six Sigma methodology to get results in cycle time, quality and cost. And the more I am involved with the integration of both methodologies, the more I am convinced that you can get employee commitment more readily and achieve results faster when you properly engage and empower the work force in achieving both short term and long term success. After all, people are key and in the improvement process, they, and only they, will drive success.

Management Lean Learning Laboratory

The Lean Learning Center, a leading provider of lean curriculum and consulting to a variety of industries, announces its newest offering – the Management Lean Learning Laboratory (ML3). Focusing on providing skills that go deeper than 5S and waste elimination, ML3 provides a structured set of tools that managers will use on a daily basis throughout the lean journey.

“In the Management Lean Learning Laboratory, plant managers and their immediate staff learn important skills that are often ignored when a company undergoes lean transformation,” said Lean Learning Center partner Jamie Flinchbaugh. “Yet, these skills are critical in helping organizations pull everything together – rules, tools and principles – to ensure sustainable cultural and operational changes.”

ML3 methodology and training involves six basic levels of activities applied across 10 sessions. Content includes Creative Tension (current reality versus the idea state), Control Point Standardiza-

tion, Direct Observation of Work, 5 Whys Problem Solving, Scientific Method, and Visible PDCA (Plan, Do, Check, Act). Training is provided by a Lean Learning Center coach, who comes on-site for each session, which are typically held

3 – 6 weeks apart.

“ML3 implementation is not unlike building a house on a foundation,” added Lean Learning Center partner Andy Carlino. “Each session builds on one another. The final session is designed to show management how to organize all the collective improvement work into a true sustainable improvement process and to prepare them to continue their lean journey on their own.”

The Lean Learning Center suggests that ML3, which is skill-oriented program focused on a small group of plant leadership, be applied in concert with the Center’s process-oriented Lean Learning Laboratory (L3). The L3 is geared toward the entire plant floor workforce to help them learn how to apply the

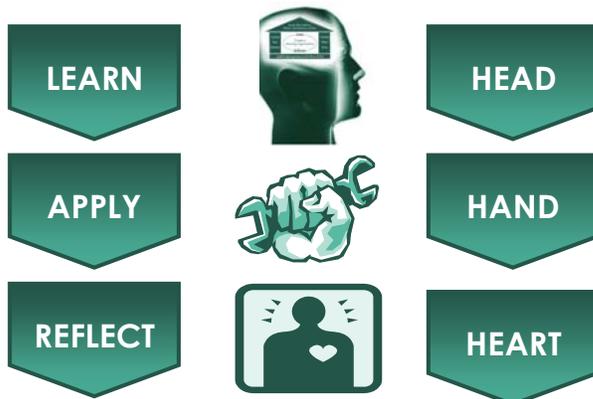
principles and tools of lean within a shop floor environment using a Learn - Apply - Reflect methodology.

The Management Lean Learning Laboratory is just one of the offerings available from the Lean Learning Center, which – in combination with corporate partner Achievement Dynamics, a provider of management consulting – provides a full complement of lean transformation services. The Center was founded in early 2001 to address the gaps and barriers that are holding back companies from successful lean transformation and currently has a roster of over 2000 alumni. Industries served include manufacturing, healthcare, public utilities, retail, aerospace, communications, technology, investment equity, service and more.

Call 248-478-1480 or visit www.leanlearningcenter.com to request a curriculum brochure or for more information.



**“LEADERS SEE
EVERYTHING IN LIFE
AS AN OPPORTUNITY
TO CHANGE AND
GROW.”
- NOEL TICHY**



THE ML3 ENGAGES THE POWERFUL LEARN-APPLY-REFLECT METHODOLOGY CREATED BY THE LEAN LEARNING CENTER

DEVELOPING LEADERS AND LEARNERS FOR LEAN TRANSFORMATION

Lean Learning Center

40028 Grand River Avenue
Suite 300
Novi, Michigan 48375

Phone: 248-478-1480
Fax: 248-478-1589

Email: info@leanlearningcenter.com



For more visit
www.leanlearningcenter.com

Lean Learning Center Announces 2005 Curriculum Schedule

The Lean Learning Center, a leading provider of lean curriculum to a variety of industries, has announced its initial course schedule for 2005. Classes include The Lean Experience, a five-day session that provides the foundation for lean transformation, being offered the weeks of January 10, March 7, May 16, August 22, October 17 and December 5; Lean Kaizen Workshop Boot Camp, a five-day hands-on program with the majority of time spent at an actual manufacturing site, offered the week of April 11; and Lean Value Stream, a two-day program that expands the lean vision to the entire enterprise, starting May 23. Additional special offerings will also be released throughout the year. All sessions are held at the Lean Learning Center in Novi, Mich. In addition, the Lean Learning Center, through its partnership with TÜV SÜD Group (Munich, Germany), a leading global technical service company, will be holding a 5-day Lean Experience session in Munich. This is the first lean curriculum of its kind to be offered in Europe. Unlike many lean education providers who often focus on manufacturing, the Lean Learning Center takes an approach that applies to any industry by focusing on the lean guiding principles and rules. "The Lean Learning Center is the only place I know that teaches lean systems thinking," said a recent Lean Experience alumnus. "There are a lot of people teaching the tools. However, without the 'system thinking' it is like trying to

The Lean Learning Center was founded in 2001 by manufacturing and consulting industry veterans Andy Carlino, Jamie Flinchbaugh and Dennis Pawley to address the gaps and barriers that are holding back companies from successful lean transformation. In addition to the advanced curriculum, the Center has developed a learning environment designed specifically for adult learning, utilizing techniques that include discovery simulations, case studies, personal planning and journaling. Together, with affiliate Achievement Dynamics, founded by Andy Carlino in 1991, the companies offer a complete array of lean transformation services.

build a house with a hammer and saw, but not a blueprint."

"Many lean efforts fail," says Lean Learning Center partner Jamie Flinchbaugh, "because the emphasis is put on lean tools, such as 5S, kanban and andon instead of understanding lean as a whole system. Our approach of instilling lean thinking as the foundation for change allows any industry - whether it be service, healthcare, or manufacturing - to embark on lean transformation." The Center's dedicated facility offers a unique adult learning environment that is specially tailored to develop lean thinkers and leaders. Lean concepts are taught through discovery, simulation, case study, peer coaching, personal action planning, role playing, and journaling. There is a strong belief in hands-on training. At a recent Kaizen Boot Camp workshop, a participant commented, "This is the only place I could go to learn through the experience of a real kaizen, rather than just being lectured on how to do it."



To request a curriculum brochure or for more information, call 248-478-1480 or visit

www.leanlearningcenter.com.