The Emergence of Trust Throughout the Lean Transformation Process

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EXECUTIVE SUMMARY AND WHAT IS THE PROBLEM HERE?

Over twenty two years ago while I was working with a non-woven manufacturer in South Carolina, we were developing self-directed work teams using the team concept and participative management. Trust was a major issue, and fear of change leading to mistrust was a major roadblock in deploying lean transformation.

There were many challenges in that company, because this was all about change – changing one's behavior, changing behavior at every level in the organization starting with plant management and going through middle management, plant supervision, and then operators on the line. We battled that fear and resistance to change by allowing the teams to help define the change. As supervisors became coaches, and the operators gained ownership, trust grew.

I was new to the industry then, but over the last two decades, I have

observed that trust has remained the elephant in the room regarding all lean transformation processes.

In the last ten years, much has been written about the Toyota production process and the adoption of Lean Six Sigma in primarily manufacturing organizations, and also in some IT, sales, marketing, and government organizations. However, little has been written about the human resource and the utilization of the human resource in the lean transformation process via the emergence of trust.

Why is Trust so easy to lose and so difficult to earn during the Organizational Change Process? Which group is most distrustful of the change and why? Where does an organization start in the Transformation Process to gain the trust of every Associate and then sustain the trust? This paper will begin to address the issue of trust in the lean transformational process from a perspective gained from our 22 years of observing human behavior in the work environment of over 60 companies.

GAINING THE TRUST OF THE MECHANICS

I was brought in to examine the food production lines of a grocery retailer, and I went out on the floor to speak to a mechanic about one line in order to ask him some basic questions about preventative maintenance. I knew that this particular line had the highest downtime of any of the six lines in the plant. I saw the data and had already spoken to the plant manager, and I knew the problem. I shook the mechanic's hand, and as soon as he established the fact that I was the outside consultant, he told me he was a union member and then he got cold real quick, very defensive and very

skeptical.

He was threatened, didn't know what to expect from me, and certainly didn't want any shortcomings or waste pointed out. The mechanics are very proud of their technical abilities, because they are skilled labor. They are not "just operators." That also was one of the issues: they did not trust most of the operators.

I could see all seven types of waste on this line. The way to solve this issue was not to point out his waste, but to bring him into the process of analysis. I needed to educate and coach him to finding the solution along with the operators, engineers and supervisors.

This one production line had more stops than any other line, and this one labeling machine had more stops than any other machine. It was a very complex German piece of equipment and certain parts of that equipment had to be timed perfectly and replaced perfectly. It was very sensitive and technical, and in that entire plant of 350 people there was only one mechanic that could time it properly!

That is a very high risk. If this gentleman decided to leave, the plant would be in big trouble.

We had to break through the maintenance bottleneck and break through the distrust. The only way to do that was education: hands-on, practical, competency-based, performance-based education where the operator has to perform the tasks of troubleshooting, preventative maintenance, lubrication, or whatever was required, in front of a trained expert.

It was an expensive endeavor to bring in the manufacturer of the equipment, shut down the line, and schedule everyone for the training. It took about a month to get it together. In the meantime, the mechanics were still a little skeptical of the process. We were getting their input and showing them appreciation and respect that they weren't used to getting.

We trained at least 20 mechanics and at least 15 operators and continue to train them. They had classroom training and hands on training where the trainer showed them how to do it. He did it and then said "Here's another one, you do it. Show me how you do it. You train me now." We rebuilt the machine and brought it back to new. I got rave reviews from those mechanics. I had hard-line, hard-nose, mean-spirited union mechanics look me in the eye and say it was the best training they have ever had in their life. The bottom line is that they appreciated it because it added value to them. It gave them a higher level of skills and it answered their questions and their need, their human need, of feeling significant because their significance is in technical expertise.

The trust level within that plant rose immeasurably after that. Also, there was a 74% reduction in downtime for the last 16 months and a 50% reduction in overtime. Production is now owned by the operators and the mechanics who all share in the troubleshooting of the process. [See Figure 1]

INVERTING THE TRIANGLE
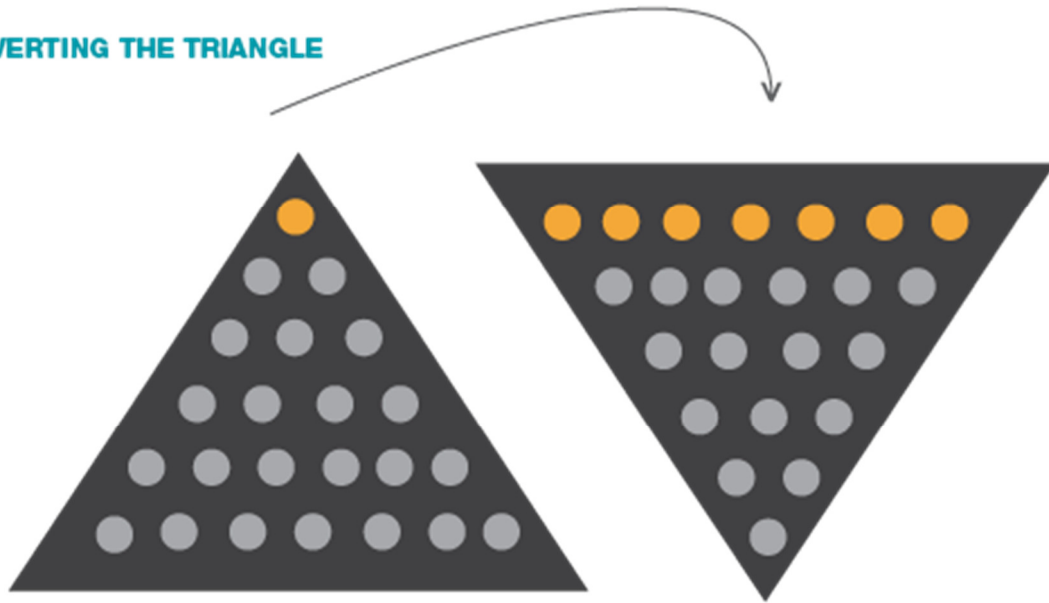
THE LOCUS OF THE ISSUE

In the non-woven manufacturing plant mentioned at the top of this paper, by far the biggest issue in changing behavior and gaining trust was with the front line supervisors. The front line supervisors distrusted the lean transformation process mainly because it eliminated their position and drastically changed their job. They were no longer needed to watch people do work. Instead the front line operators were doing and directing the work as needed. They were actually self-directed, working on their own using the lean tools.

So the real issue became not really the operators but the front line supervisors understanding what their new roles would be. Instead of being supervisors, now they were to be coaches and mentors. This was a very difficult concept for them to understand, and it resulted in many, many conflicts and disagreements and a lot of tension in the workplace.

This lack of trust is common when it comes to developing Lean and Six

Sigma in an organization. Trust is absolutely essential in developing and changing any organization, especially using new tools and concepts that drive waste out of an organization. The only people that can really make it happen and sustain waste removal and the adoption of Lean techniques are the front line operators in the Gemba. They work directly on the shop floor and are the last people to touch the product before it gets to the customer. Major issues arise with the Lean transformation process mainly because of lack of trust with operators and supervisors in the Gemba.

WHAT DO WE WANT OUR HUMAN RESOURCES TO LOOK LIKE?

The utilization of the human resource basically fits into two categories: the primary control principle and the secondary control principle. The primary control principle is used in organizations where human labor alone is critical. You'll find many of these organizations in third world countries in Asia and South America. The secondary control principal is used in organizations where the human mind, creativity, spirit, and thought are highly valued. This is very much needed in the lean environment where people are needed to troubleshoot, to make critical business decisions, to make quality decisions at every level, and to be involved in almost every aspect of running the business. This type of organization is very customer oriented. The operators focus on the customer's needs and give the customer exactly what they want, when they want it.

The critical job characteristics for this type of organization include flexibility, creativity, responsiveness, and adaptation. The job must be flexible and the employee must be flexible. They must be able to move from various jobs during the day, be flexible with their task, and be able to

be cross-trained and perform different jobs. Creativity is a very critical part of the lean organization. Looking for new ways to eliminate waste in the organization, both in the process and in the maintaining and running of the equipment, finding common sense approaches to problem-solve and troubleshoot so that the product meets the customer's needs and expectations.

Responsiveness from front line operators is also a critical part of meeting takt time and meeting the needs of the customer. A "just in time" organization is very much concerned with responsiveness of the supplier to getting product exactly when they need it to the customer. Another critical job characteristic is adaptation. Operators must be able to adapt to many different situations in the work environment.

Long-term success occurs when the human mind is the organization's ultimate resource. The organization needs to appreciate and value every operator's creativity, flexibility, adaptation, and responsiveness in using their mind to solve problems and to deliver to the customer.

MANAGEMENT STYLE AND TRUST

The trust orientation depends on having the most effective management style. In order to gain trust, there must be a participative management style versus an autocratic management style. Participative management does not mean there is not leadership in the organization. It simply means that it is a team decision, and everyone's opinion is appreciated and valued in order to make the right decision.

Autocratic organizations work well in the military, but not so well in a cheese factory or an electronic factory or any assembly organization where operators must make critical decisions on their own. This is especially true when they are making these decisions on a minute by minute basis involving quality and productivity as well as troubleshooting and maintaining the equipment. Motivation to change requires trust without fear. People in most organizations will change for the long term if they have trust without fear. Certainly fear can motivate team members for a short term, but it does not give or have a long-lasting effect. Eventually, fear dissipates and the people are no longer motivated to drive out waste in the organization and to add value into the product. It is critical that there be a high level of trust in the organization in order for change to happen and operators to be motivated.

INHERENT WEAKNESSES OF VERTICAL ORGANIZATIONS

In my experience in the last 30 years, I have worked with many vertical organizations where there was little room for commitment and involvement, only because the plant manager or the front line supervisor was making all the decisions down directly through the chain.

In the vertical organization, work is defined as output, or how many pieces the worker can produce per hour, or how many pounds of product can be put through on a daily basis. It is not defined as problem solving, troubleshooting a piece of equipment, or redesigning a piece of equipment in order to increase productivity and quality and safety.

In vertical organizations, there are two major weaknesses: First, there are

too many levels of communication. Second, relationships suffer from this multi-level structure.

Decision making is time consuming and laborious due to the multiple levels it must travel through to be accomplished. For example, before an expenditure of even less than $100 is made, a plant manager may have to give approval.

If there are any decisions on quality, supervisors or managers have to make the decisions. Operators are not empowered to make these decisions because they are not asked to think or problem-solve or troubleshoot. They're asked to do one thing, produce units or produce product and do repetitive work, but not to think.

In this structure fear is often used as a motivator, and management has total control over all operators. Relationships that occur from this thinking and this approach are full of distrust. It occurs between supervisors and operators and all the way up the chain. It drives out creativity, it drives fear into the organization, and often operators are highly unmotivated.

Likewise, there is a distortion and loss of information down the chain. People don't understand the big picture, and they're often left in the dark about why decisions are being made. In turn, they become very angry, very frustrated, and feel like they have been treated like just a machine and not humans. They're not asked to make any real, long-lasting, productive decisions that add value.

THE HORIZONTAL ORGANIZATION

A lean organization is normally a horizontal organization. There is a high commitment from every employee. The Lean Culture is all about commitment at every level. There is often a common goal, and every employee knows that goal well. They understand the goal. They know how to measure the goal. Everyone understands it, values it, buys into it, and owns it.

The primary concern of leadership in the horizontal organization is to unlock the human spirit and human drive so that they are more creative, more flexible, and add more value to solving problems and contributing to the final outcome. Often, horizontal organizations are very customer-sensitive and very customer-focused. Horizontal organizations are not without their own control mechanisms. One technique used is box-side control, where there are parameters for quality, safety, productivity and maintenance. Operators and team members are allowed to be creative and flexible, and make any decision they deem necessary for the customer within those parameters.

I've seen this be extremely effective in several companies, and normally, it drives waste out of an organization and adds high value to the service and final product.

Self-managed work teams are often used to be more productive and to solve problems and to make their own decisions. This is often used in many lean organizations as well. I have conducted numerous surveys over the years to determine what traditional front line supervisors and middle managers believe is their percentage of time where they add value, added work to the organization and to the customer.

Traditional front line supervisors normally believe that 75% of their time is value-added, when in essence, when you observe and do a study of their behavior throughout the day, most of their behavior is directing people or watching people do work. The real value is more like 10%-20%. Middle managers may be a little more, but around 30%-60%. A lot of their time is spent watching people do work, which is not value-adding. This is not found in a real lean organization.

The goal is to turn the pyramid upside-down. The organization structures must be turned, and the pyramid of authority must be turned upside-down, where, instead of the plant manager being at the top of the pyramid of authority, the customer has replaced the plant manager, so everyone serves the customer.

The plant manager is now the bottom of the pyramid, serving first all the support units, including supervisors and foremen, and engineers and other resources. They serve technicians and maintenance people who serve craftsman and line operators. Those people then serve the customer. So the organization is turned upside-down in order to drive participation at all levels of the organization.

TRANSFORMED FROM THE START – LEAN FROM THE GET-GO

We need to invert the triangle of authority and put the authority in the hands of the operators and the people that touch the product, the people that are closest to the customer. These are the people that now make the critical decisions, because they are closest to the product.

I worked with a sausage casing company many years ago. We started a greenfield operation, a startup operation using the concept of self-managed work teams and started building trust immediately with the associates and team members using a horizontal organization versus a vertical organization.

There were only two job classifications in that facility. They were technician and operator. They did everything. There was no quality department. There were team leaders, but there was one plant manager, four team leaders, and operators and technicians, all on the same level and communicating on a regular basis.

The operators hired their own team members and they recommended termination for their team members through a progressive discipline process. There was an enormous amount of peer pressure to perform by each of the operators. The leaders were not supervisors, but simply leaders. They did have authority over the plant while they were team leaders. They very seldom had to intervene, except when coaching the operators.

There was a high level of trust of management, because the operators and the technicians were allowed to make day to day decisions on quality, safety, and productivity as well as housekeeping and keeping their equipment clean. There was a checkout process for each operator that had to be signed off at the end of their shift and approved as to allowing them to go home. If their equipment was not in the proper housekeeping condition with proper cleanliness, they would have to stay over on their off shift and clean the machine. There was a signoff process where each

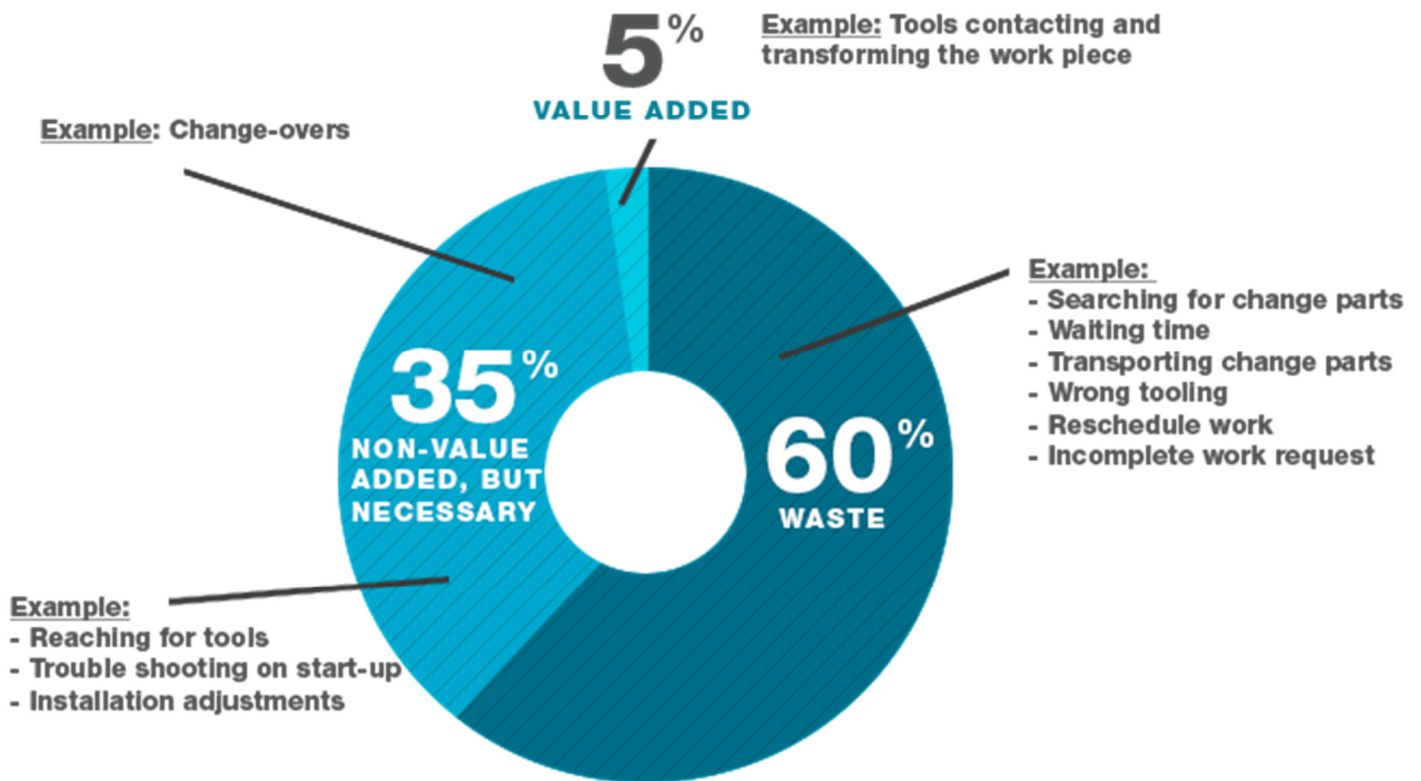operator signed off and allowed that operator to go home.

There was enormous peer pressure; however, there was a great amount of trust within that organization because people were given a lot of responsibility. We unlocked a tremendous amount of spirit and drive and creativity. There were people making decisions on quality. They were very careful about it. They put their own quality sticker on every box of casings with their name on that box. It was a personal ownership, and they made sure that if their name went on the box, the product was a quality product.

There was great communication within the organization. Operators and technicians got answers very quickly. There was not a high level of vertical, when one person goes to another person who goes to another person, but there was a lot of straight-forward communication. They had certain box-side levels, certain limitations were they could make certain decisions. Termination decisions had to be taken to the plant manager, but very few of them were turned down. Most of the time, if an operator recommended someone for termination and they failed the progressive process and they went through the steps, then they were terminated.

This gave the operators a very large value and buy-in to the process. It worked very well. Productivity was the best in the company. This particular company was the lowest cost producer in their industry, in the world, because there was not a need for a supervisor and a middle manager watching people do work. Middle managers watch people do work and supervisors watch people do work, so the value added time to the organization was much, much higher than the traditional first line supervisor 10%-20% value added. It was much, much higher. The team

leaders were probably in the 90% of value added range. [See figure 2]

MOST PROCESSES ARE ONLY 5% OF VALUE-ADDED WORK

5%
VALUE ADDED

Example: Tools contacting and transforming the work piece

Example: Change-overs

35%
NON-VALUE ADDED, BUT NECESSARY

60%
WASTE

Example:
- Searching for change parts
- Waiting time
- Transporting change parts
- Wrong tooling
- Reschedule work
- Incomplete work request

Example:
- Reaching for tools
- Trouble shooting on start-up
- Installation adjustments

The operators made trips to customers on a regular basis, along with the technicians. They interacted with customers. They understood how the equipment worked. They understood how to troubleshoot the equipment. They understood all the details of quality and there was great ownership. This was a very successful organization. It was a greenfield. It started up as a self-managed work team with a high level of trust.

THE ORGANIZATION IN PAIN

I've also worked in several organizations where I developed the horizontal organization, with what we call "using the team concept," or "management participative leadership" in existing companies. It is much

more difficult to do this, because there is not a high level of trust. There is a high level of distrust of supervisors and senior level managers because the people feel no ownership. It's very difficult to turn one of these organizations around.

I have done this several times, but breaking down and changing, and replacing the distrust with trust is a very difficult endeavor. When you go into organizations like this, there's normally excessive overtime, poor communication from shift to shift, and an ineffective turnover from shift to shift. People don't communicate; they just leave their equipment; there's very little accountability to the customer for quality and on-time delivery because that is perceived to be the supervisor's responsibility.

There's very little leadership accountability. Most of the time, leaders treat people in a distrustful way, therefore the people act in a distrustful way. There is often a poor work ethic. People just don't care. They do what they have to do. They're minimalists. They do the bare minimum, then they move on.

Oftentimes, in organizations like this, in these vertical, highly-stacked organizations, there's no sense of urgency. They're too far removed from the customer and the needs of the customer, therefore the operators do not understand the need for quality, safety, and on-time delivery. There's often an unbalanced workflow, and this is where lean comes in, where we balance the workflow. Most of the time, one or two star operators are doing most of the work, and the others are coasting and are not very busy.

There is a problem with training in these vertical organizations. There's very little training done. Operators are on a need-to-know basis, and they only are taught what they absolutely need to know. They know very little about the equipment, they know very little about troubleshooting the equipment, they know very little about the operational conditions. They are just told to push the green button for "go," the red button for "stop," and that's what they do. Thus there's very little ownership in these operations.

Before implementing phases of transformation, the lean team much be aware of what the particular roadblocks to trust are in their situation. Do any of these look familiar?

- The Lean Culture is foreign and "We just aren't like that."
- Consultants come in with Pre-conceived ideas and don't truly listen and observe well.
- Top Management lacks understanding of the issues
- Time and Money is very limited
- "Blaming Rights", No Solution but I want to acquit myself by blaming others for these changes
- Plant Management distrusts Corporate due to plant closings and job losses
- Fear of the Unknown, "Who's next?"
- Fear of Losing my job
- Lack of Loyalty from Corporate
- "I'm smarter than the consultant. That will never work."
- Generation Gaps – truly different cultures. Baby Boomers vs. X vs. Y vs. Z ("I value my free time more than Boomers")

- Lean means "Do More". It all pays the same and I do not want to do more and take on more responsibility.
- The word "Lean" scares me. Leaning what and who. Just processes or me?

Fear of Change leads to distrust throughout the Lean Transformation process

TURNING THE BIG SHIP

When turning a vertical operation into a horizontal, high-performance work team, it takes a pilot picking your star players, putting them in a pilot area, and giving them certain box-sides or limitations for them to work within. But most of the time, they're allowed to establish their own shift hours, most of these people are on salary instead of hourly, so they get paid whether they come to work or not. However, they're held accountable by their team members to come to work, obviously.

They have their own standards, which fit in identically to what the customer wants, but they are standards for quality. There are very precise standards for safety, and productivity goals are very clear to everyone. Oftentimes, we put a score board right in the work cell, or the area where they work, so they know on every hour, sometimes every minute, if they are hitting the target of productivity or missing the target of productivity.

Most operators on high-performance work teams prefer 12-hour shifts, and they like a four-day-on, two-day off or three-day-off alternating shift. This fits very well with their work schedule. They prefer this work schedule, and we allow them to set up their own work schedule. In this situation,

there is normally what we call a focus factory manager, there might be two or three team leaders, two or three technicians, two or three lab techs, maybe one process engineer, one scheduler, and the rest are operators.

There are very few levels in the organization, and they are all reporting directly to the focus factory manager. So there is truly an open-door policy for the focus factory manager. The accountability is an internal customer focus where we all support the customer. There are no politics with maintenance or scheduling or the lab or quality. Everybody understands the requirements and customer expectations very clearly. They've been to a customer. They understand.

The focus factory manager is the customer representative. He or she represents the customer, so he or she sets priorities and has the authority to make immediate decisions. But most of the time this person doesn't make decisions. He or she coaches the operators into making their own decision. There's ownership. There's no blaming. We take away the blame with this, and we immediately drive trust into the organization by taking away what I call these "blaming rights.

THE PHASES OF THE CHANGE PROCESS – THE SOLUTION

So how do you bring about this change in an organization? You have to determine if there is a need for change. In Phase One, we ask the question "Why change now?" Although there are multiple reasons for change in many organizations, the number one reason is customers. Customers need better quality product and on-time quality product. The competitors might be giving them these things and we are not, so we want to protect our

market share, we want to increase our market share, so this is why we change.

We also address the alternatives to change. What happens if we don't change and what happens if we don't drive this trust and build this trust into the organization? We could lose market share; we could lose our business; we could all lose our jobs. Competition is truly global now, and we could certainly lose our jobs to third-world countries and to big competitors now, like China, Mexico, Indonesia, Thailand and India. So we choose a strategy and we develop a game plan for the organization that will meet the needs of the customer and increase our market share and take market share from the competition.

Phase Two in the change process, The Emergence of Trust, involves front line, first line supervisors taking on other responsibilities where they're doing value-added work instead of just watching operators do work, or disciplining operators or trying to catch them doing something wrong. Their job now is to prevent distrust and to reduce paranoia. This involves them listening more than talking.

We start a pilot team in a small area, and we design the lean transformation process and develop the training program to make everyone a leader and take on the past responsibilities of the first line supervisor. The supervisor now is a coach and a trainer, teaching the operators how to schedule, how to make quality decisions, decisions on quality, good and bad product, understanding the orders, what orders are needed, and when they're needed, how to ship, what are the hot orders, and how to schedule the people on the shifts. This is a big responsibility

and it takes time to make this transition.

In Phase Three, we're dealing with people understanding the voluntary process, where they are volunteering for overtime or to help. They're not made to do anything. They do it because they want to. This basically involves a design team that is designing the process and they are redesigning a physical task of the job by looking at the ergonomic effect of the task. They are redesigning social and interpersonal tasks so that people are involved in all the decision-making, and they're designing the box, or what we call the box-sides, the limitations on quality, safety, productivity, and the work environment, profit, whatever those box-sides might be. The design team designs these box-sides to design a strategy for the organization to run the business.

So we have now inverted the triangle and have put the people that touch the product closest to the customer. The general manager serves the entire organization by providing resources, money, time, and process to give everybody who is making this product or service the knowledge, the understanding and the competency to better serve the customer. He trusts the operators with the resources to do the job, and we have found that his trust is rewarded with loyalty, competency, and a quality product.