TMG News

The Manufacturing Game®
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Leading Your Organization Through Change

By Michelle Ledet Henley

The number of companies successfully instilling the concept of defect elimination in their workforce using The Manufacturing Game® has been growing significantly over the past years. Following our own advice about learning from successes, we have studied how these companies were able to achieve such exceptional results. While the approaches varied widely, they did have a few things in common that we feel were keys to their success.

The Manufacturing Game® workshops are designed to educate the workforce about defect elimination and to motivate them, particularly the front line workers, to take action to eliminate defects immediately. What the workshop does not directly address are the leadership roles necessary to organize such a large change effort. The companies that have been extremely successful in using The Manufacturing Game® to move their facilities to proactive manufacturing have worked very diligently to determine and develop the necessary leadership roles and skills.

Each company had their own unique approach to developing leadership but what they had in common was that they each developed three different types of leadership. They recognized the need for leadership from the top of the organization that would create the receptivity to new ideas. They fostered leadership from the front line that would help to generate effective cross functional Action Teams. And finally they had thought leaders who searched out and championed the right ideas that would translate the goals of executive leadership to the efforts of the front line leaders. These three types of leadership are well articulated in an article by Peter M. Senge of the MIT's Center for Organizational Learning in the February, 1996, issue of The Systems Thinker titled "Rethinking Leadership in the Learning Organization". Senge refers to these distinct types of leaders as Executive Leaders, Local Line Leaders and Internal Networkers. In implementing, the principles of defect elimination, the leaders accomplished the following:

Executive Leaders

The Executive Leaders set the business context for the change effort. They provide the business imperative for the change. At a large mining client, the business leader explains that they are at a significant cost disadvantage to other mines because of geology and that only through manufacturing excellence can they hope to compete long term. At an automobile manufacturing client, the executive leaders pointed out that their sales

Herding the Cats

It is easier to find thirty-six random people to fill a workshop, than to carefully pick six teams of six individuals to tackle a real project. Getting the "right people" to a workshop can be a daunting task, especially for those companies just starting out with The Manufacturing Game®. But having the "right people" in attendance can produce significant rewards.
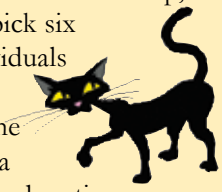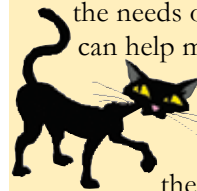
One of our clients at a very large site had extraordinary success in getting the right people to attend their workshops, and was willing to share their ... "herding" techniques with us. Here is a summary of their deployment strategy:

1. They started with the end in mind. They asked themselves what it is that you are trying to change. They needed to create a workforce of 7,000 problem solvers or better yet, 'defect eliminators.' So, they knew who the 'right people' were.

2. Do not present The Manufacturing Game® as a 'one up' workshop that will be the silver bullet to your problems. Use the game to integrate existing efforts at your company. They used the game to show how all of their improvement efforts where linked to a whole.

3. Tailor the workshop to the needs of the area. This can help more clearly tie the lessons to the problems they face. Most of the tailoring is simple changes in terminology but require some up-front thought by the organizers.

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could have been much higher had they not had production constraints. The CEO of a large tire manufacturer described the key strategic initiatives of the business and then linked all but two of them toward their move to proactive manufacturing. Clients who have no clear business need or who communicate the need poorly typically get very little traction because the front-line perceives the change (perhaps justifiably) as "flavor of the month."

Executive leaders also control resources, budgets and people. Moving resources around is not enough to get proactive manufacturing started, but failure to move the right resources can kill a bottom-up effort. One chemical processing company saw their efforts stopped cold when an Action Team could not get $5,000 to rework some valves that had been a nagging reliability problem.

All of the big successes that we have seen have included celebrations of success that were sponsored and endorsed by the Executive Leadership. These clients provided a forum where success was recognized. At one plant, this took the form of a monthly meeting of all the key managers where teams would report back on defects eliminated and savings realized.

Local Line Leaders

Local Line Leaders know where the defects are, and they know who will get excited about working on those defects. By far, the most important element of a successful Manufacturing Game workshop is getting the right people there. Not only do Local Line Leaders know who the right people are, they typically have either direct control or influence over who will attend a workshop. One client refers to this process of finding and recruiting the right mechanics, operators and support people as "herding the cats." Local Line Leaders can also help gather information, bring

in skills training and communicate roadblocks to the Executive Leaders.

Local Line Leaders are not just supervisors. At one client, the union leadership plays this role. They actually push management to stay on course with defect elimination. Front-line workers can play this role when they get fired up. At times, engineers or managers who have a tight tie to the front-line can also provide this sort of leadership.

Internal Networkers

Internal Networkers are the people who are excited about the ideas involved in the change and want to see them implemented. Their role is to make the ideas clear to the people who have to implement them. This involves getting the ideas into a form and language where they become "common sense" in the specific company's environment. Sometimes it requires developing new ideas to help people see the connection to other things in their environment. The idea of "stable domains" is a good example. Creation of this way of looking at Reactive, Planned, and Improved Precision types of maintenance was very necessary at DuPont to see the relevance of data collected through an extensive benchmark study. The idea of defect elimination didn't become clear within DuPont until the stable domains were articulated. Sometimes the right idea needs to be modified so that it applies within a particular company, industry or culture. The best language for communicating ideas is the sharing of success stories within a company. Nothing makes more "common sense" than a successful implementation within your own site.

One activity that helps Internal Networkers perform their role is interacting with people from other places. Benchmarking is one way to do this. However, a good benchmark should do more than just pick up best practices. It should

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also dig deep enough to understand the ideas behind the best practices. Another way for Network Leaders to interact with others is to invite people from other sites within your company or from other companies to join you in Manufacturing Game workshops. This cross-fertilization has been particularly helpful to some of our clients. They find that seeing their company through a "fresh pair of eyes" really helps workshop participants to open up to other paradigms. Many of our clients have also found networking with other certified Manufacturing Game facilitators from different companies to be an excellent way to share ideas about "what works" when trying to spread the message of defect elimination and improved reliability.

Network leaders perform their role in the world of ideas; places like professional societies or corporate initiatives like the Corporate Maintenance Leadership Team at DuPont. The work here is part of the informal "shadow" network that exists in all organizations and is the fertile place to try new ideas. From this experimenting in the shadows comes the really well formulated ideas that can cause the change effort to be successful.

While we still advocate a "bottom up" approach to defect elimination, it is clear that the companies that have ALSO developed leadership at the executive, local line and network levels have been more successful at realizing the full value of defect elimination.

Chances are, if you are reading this newsletter, you are an Internal Networker or perhaps a Local Line Leader. Your first challenge is to identify your Executive Leadership.

Who understands the business context? Who can articulate the opportunities in a way that connects to the front-line? How can you get them to play that role? Just as importantly Internal Networkers have to recruit the Local Line Leaders to make sure that the right problems are tackled and the right people are involved. To find these leaders, you need to look for who has influence with the front-line and is open to new ideas. Finally, you have to play your role. Promote the concept of proactive manufacturing as a solution to the Executive Leadership's business needs. Encourage the Local Line Leaders to get involved and sell them on the benefits that they will realize from the process. Continue to network both inside and outside of your organization to find best practices, to promote your successes and to keep the momentum going.

4. Infuse some energy. Use motivated, energetic, passionate people to develop the workshops (natural leaders). This energy is contagious and it will spill over.

5. Start early and establish rapport with the local team. Start developing a workshop two months before it is scheduled to occur. The early work involves identifying and educating key leaders/decision makers on the points outlined above, using visual aids describing the game, the experience, and the action team process. After the key leaders and decision makers are educated on the process, they should be invited to sample the game themselves.

6. Market your next session. Designate six of the available seats to a group of key leaders and decision makers from another business unit or sister site to sample the game.

7. Mentor the leaders on who should be invited. With the leaders on board, advise them on the breadth and depth of people to invite, keeping in mind the action teams that these people will be forming. Mentor them on the best mix of people to create and support action teams.

8. Fund the pilot sessions from your own budget if possible. Engineering, Maintenance, Technology or Corporate agrees to pay for the first game play in any of the business units or sites. This significantly reduces the 'hand wringing'. Once they experience the game and witness the improvement efforts taking place among their workers, there is no more 'hand wringing' and they continue the workshops on their own.

9. Stand back, and allow the local management team to take over. Once a successful pilot has been run it becomes important to start the process of developing the next workshop, but, this must now be done from within. Step back and mentor the local management team as they develop the next workshop.

To prove that this company's methods work, our contact shared a story from a real workshop in Canada: "We were running a thirty-six person workshop off-site, from our Cokemaking business unit. The second day of the workshop fell on a Friday on what we call a Chinook, a warm period in the midst of winter. Suddenly, we realized that it was 5:00 p.m. (an hour late) and every person was keenly interested in the action team discussions. No one wanted to go home, no one was pressed up against the windows– they were all diligently engaged in the discussion around their various issues. That's when we knew it was working. Steelworkers don't stay late on Friday, on their own time, and give up the first beautiful spring day, unless they are entirely engaged in what they are doing."

"Leaders don't create followers,
they create more leaders."

—*Tom Peters,*
American businessman

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TMG News

Houston Chapter of SMRP 2014 Maintenance and Reliability Symposium

The Houston Chapter of SMRP will hold the 8th annual Maintenance & Reliability Symposium, August 14–15, 2014 with a pre-conference golf tournament on August 13, 2014 at Moody Gardens–Galveston, TX.

Keynote speaker for this year's Symposium is Ron Moore. Ron is a noted author and consultant for manufacturing and industrial companies world-wide. He has written several books including "Making Common Sense Common Practice: Models for Operational Excellence" and "Where Do We Start Our Improvement Program?"

There will be top notch speakers presenting on the SMRP BoK plus a track on Maintenance and Operations. A few examples of the presentations are:

• The Path to Reliability by Identifying Gaps and Streamlining Best Practices
• Risk based Machinery Management (RBMM)–An Overview of API-691
• Improving Reliability Across Departments and Across Miles

Friday's panel discussions include captains of industry from various companies discussing:

1. Nurturing the Partnership Between Reliability, Maintenance and Operations

2. Management Best Practices to Address Conflicts When Generations Interact

3. Using Data Proactively to Drive Reliability

There are great opportunities for learning & networking for all venues. The net proceeds from the symposium and the golf tournament are awarded in scholarships to maintenance, reliability and technical students and also in educational endowments. Please help us achieve our goal. Register for MaRS 2014 www.smrphouston.org

HOUSTON CHAPTER OF SMRP 2014 MAINTENANCE & RELIABILITY SYMPOSIUM

August 14–15, 2014
Moody Gardens — Galveston, TX

Preconference
Golf Tournament
August 13, 2014
Moody Gardens Golf Course
Registration 7:30am.
Shotgun start 9am.
Payment must be received by
August 1st to confirm.

For information or to register visit:
www.smrphouston.org